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CORRIGENDUM

Ref.: Sales No. E.86.II.B.5

ISBN 92-1-106217-9

(ID/343)

28 October 1986

Vienna



INDUSTRY AND DEVELOPMENT, GLOBAL REPORT 1986

Corrigendum

Page 194

Diagrams appearing on this page do not refer to Democratic Kampuchea but to the Dominican Republic and should be transferred to page 198.

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INDUSTRY AND DEVELOPMENT
GLOBAL REPORT 1986

INDUSTRY AND DEVELOPMENT

GLOBAL REPORT 1986



UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

Vienna, 1986

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Acknowledgement

This *Report* was prepared by the Studies and Research Division (Global Studies Branch, with extensive data provided by the Statistics and Survey Unit) of UNIDO. The contribution of background papers by Messrs M. Desai, D. Fischer, M. Hopkins and J. Skolka is gratefully acknowledged. The opinions expressed in this *Report* do not necessarily represent those of the persons mentioned above.

ID/343

UNIDO PUBLICATION

Sales No.: E.86.II.B.5

ISBN 92-1-106217-9

03500P

Preface

At the beginning of 1986 the United Nations Industrial Development Organization (UNIDO) became a specialized agency of the United Nations, and as part of this reorganization the perspective of UNIDO is being reshaped somewhat. In this and future issues of the *Global Report* I plan to present the perspective of the new UNIDO on global industrialization. As before, the primary objective of the Organization will remain that of accelerating industrialization in developing countries. But the new UNIDO will place increased emphasis on seeking to promote industrial co-operation between different regions and countries, and will seek the active participation of industrialists as well as Governments the world over to achieve this objective. Since I believe what is now needed is for all parties to work together to achieve concrete and useful results, one of our new roles is to be a catalytic agent in efforts to promote positive interactions between actual and potential partners in developing and developed countries.

In order to play the role of a catalyst, we will have to emphasize pragmatic solutions to practical problems rather than those based on ideological grounds. In different countries industry has been successfully established by public-sector enterprises, by private enterprises and by enterprises with mixed ownership. In some branches of industry, small-scale and rural industries have made an important contribution and I believe their contribution should be even more widespread in the future. In other branches of industry, a major part of the total output of developing countries has been established with the direct assistance of transnational corporations, and the effectiveness of this contribution should be acknowledged. What is important is that all industrial projects, assisted by UNIDO or not, be designed and operated in an efficient manner.

These shifts in emphasis require some changes in UNIDO's range of activities, which already extend beyond the original concept of an agency delivering purely technical assistance to include investment promotion, a programme on industrial technology, the System of Consultations, and industrial studies and research. Our objective is to shape these activities into a co-ordinated and interactive whole, with all elements contributing directly to the operational elements of our work.

The focus of the new Organization will be on the specific needs of individual developing countries and on mobilizing the widest range of practical forms of industrial co-operation to meet their objectives, which in turn calls for an analysis of current and future trends and linkages rather than attempts to frame a global plan for industrial development based on long-term goals. To this end the 1986 *Global Report* presents short-term forecasts for 1986 and 1987 of the level of output in 28 branches of industry in different regions and in as many different countries as possible. Such detailed information on what is happening and what is likely to happen in major trading countries and in the rest of the world is a crucial element in setting a country's own course of action and for achieving a smooth and harmonious industrial development on a world scale. In order to take into account recent events such as the drop in the price of oil and the fall in interest rates the publication of this *Global Report* was delayed to allow forecasts to be revised in early 1986.

Recent changes in the global economic system complicate forecasting efforts considerably, but short-term forecasting is inherently an ambitious task because at present neither up-to-date nor complete production statistics at the branch level of industry exist for all developing countries. We recognize that this first attempt to produce short-term forecasts for developing countries will not be perfect, but hope that the forecasts will stimulate the many countries involved to provide more up-to-date statistics on the output of individual branches of industry and more information on their plans for industrial investment and output growth in the future. In this way the information base that we attempt to provide in this and other UNIDO publications for decision-makers in developing countries can be steadily improved.

As in the previous *Global Report*, the 1986 *Global Report* has two main purposes. The first is to provide an annual review of the current situation and of the immediate prospects for industrialization in developing countries (of which the forecasts are a key element); and the second is to examine a special topic that has a major bearing on the industrialization process. Thus, in a year when calls for protectionism are rampant, declining employment in the manufacturing sector of industrial market economies in the North is examined in one chapter, with the aim of determining the extent to which it has resulted from industrial activity in the South. The conclusion, as one would expect since the South imports roughly twice the value of manufactured goods that it exports to the North, is that the level of employment in manufacturing industries of the major industrial market economies has gained from the industrialization of the South. The decline in the level of employment in the manufacturing industry has been due mainly to the slow rate of economic growth, the rapid pace of technical change and the structural shift in demand composition, and not to imports from developing countries. I find

these conclusions a convincing reason for reducing levels of protection, and implore the countries of both the North and the South to take heed of this message.

The other main message of this *Global Report* is, however, that there is a good chance that recovery in the economies of the North, which started in 1983, can be sustained, and that the faltering performance of 1985 can be improved upon somewhat in 1986 and 1987. This means that the outlook for industrialization in most developing countries in the latter half of the 1980s looks appreciably brighter than it did in the early years of the decade.

A number of factors contribute towards this greater optimism as compared with the 1985 *Global Report*. Inflation in the North continues to decline and, particularly, the sharp drop in oil prices at the beginning of 1986 will mean substantial foreign exchange savings for most countries and lower costs of industrial inputs. Interest rates are continuing to fall, allowing some easing of the debt burden of developing countries, and efforts of developed countries to reduce in a co-ordinated manner the value of the United States dollar relative to other major currencies could indicate an increased spirit of international economic co-operation. The resulting increase in economic growth in the North relative to 1985 will stimulate the world economy and improve prospects for growth in the manufacturing sector and for the overall development of the South.

The extent to which developing countries seize these opportunities for further growth and development will depend on the policies adopted by their Governments and the reactions of potential investors in their countries and abroad. Now that markets for industrial goods are growing, confidence to invest in industry should revive. Growing demand will stimulate higher levels of capacity utilization and the new investment that industry in the South badly needs. The new UNIDO is ready to help all parties who are willing to play an active part in this brighter future for industrial development that now seems in prospect for developing countries.



DOMINGO L. SIAZON, Jr.
Director-General

في مطلع عام 1981، أصبحت اليونيدو من وكالات الأمم المتحدة المتفهمة ، ويجاد الآن تتكبل متفورها بعض الشيء ، كجزء من هذا التنظيم الجديد . واعتزم أن أقدم ، في هذا المسدد وفي الامداد المقبلة من "التقرير العالمي" ، منظور اليونيدو الجديدة بشأن التمتع العالمي . وكما كان الحال من قبل ، سيقس هدف المنظمة الأولى تحجيل التمتع في البلدان النامية . لكن اليونيدو الجديدة تحزب من تركيزها على التي الى تعزيز التعاون المتاحي بين مختلف المتعلق والبلدان ، وستتس المساهمة الانشطة للمتاعيين وللمكومات في كل أنحاء العالم في سبيل بلوغ هذا الهدف . ولما كنت أؤمن أن ما تدعو الحاجة اليه الآن هو أن تشمل كل الأطراف مما من أجل تحقيق نتائج ملموسة وناقمة ، فانه علينا أن يكون من بين أورايننا الجديدة أداء دور العامل المحفز في الجهود التي تبدل لتعزيز التفاعلات الإيجابية بين الشركاء ، الفاعلين والمحتلمين في البلدان النامية والبلدان المتقدمة النمو .

ولكي تؤدي دور المحفز ، سيتوجب علينا التركيز على أن نجد للمعاكل العملية طولا ابتكارية جزئية لا طولا تقوم على أسس عقائدية . فبناك بلدان مختلفة نجحت فيها مؤسسات القطاع العام والمؤسسات الخاصة والمؤسسات المنظمة الملكية في اقامة المتاعة . وفي بعض فروع المتاعة ، قدمت المتاعسات المغيرية والمتاعات الربغية مساهمة هامة ، وفي اعتقادي أن مساهمتها ينبغي أن تزداد انتعرا في المستقبل . ونسمة فروع متاعية أخرى تحقق فيها جزء كبير من النتائج الإجمالي للبلدان النامية بمساعدة مباشرة من الشركات غير الوطنية . ويجدر الاعتراف بفعالية هذه المساهمة . والأمر المهم هو تصميم وتقبل كل المشاريع المتاعية على نحو فعال ، سواء أساعدتها اليونيدو أم لم تساعدنا .

هذه التحولات في التركيز ستطرم اجراء بعض التغييرات في سلطة أنشطة اليونيدو ، التي تتجاوز بالعمل الآن المفهوم الأصلي لوكالة تؤدي المساعدة التقنية الممنعة ، لتعمل بتجميع الاستثمار ، وبرنامجا من أجل التكنولوجيا المتاعية ، ونظام المفاوضات ، والدراسات والأبحاث المتاعية . وغرضا هو تشكيل هذه الأنشطة في كل منسق متفاعل ، تساهم فئته كل المتاعس اسهاما مباشرا في المتاعس التنفيذية لمعالمنا .

وسكون تركيز المنظمة الجديدة على الاحتياجات المحددة للبلدان النامية متفردة ، وليس تمهيدية أوسع مجموعة من الأتكال العملية للتعاون المتاعي تحزبها لتحقيق أهدافها ، ستطرم ذلك ، بدوره ، تحجيل الاتجاهات والروابط المالية والمستقبلية ، قبل محاولات موع خطة عاجلة للتنمية المتاعية تستند الى أهداف طويلة الأجل . ولبنده العنصرية يقدم "التقرير العالمي" من عام 1981 تنبؤات قصيرة الأجل ، لعامي 1981 و 1987 لتسويات النواتج في 28 فرعا متاعيا في ثني المتعلق وفي أكبر عدد ممكن من البلدان المتعلقة . ويشمل هذه المتعلقات التتميلية مما يجري وبما يرجح أن يحدث في البلدان المتعرة الرئيسية وفي بقية أنحاء العالم . عنصر حاسم في تحديد خطة العمل الخاصة بكل بلد وفي تحقيق تنمية متاعية ملموسة متعلقة على نطاق عالمي . ومراجعة للأحداث الأخيرة ، التي منها هبوط سعر النفط وانخفاض أسعار الفائدة ، أرمي نشر هذا "التقرير العالمي" لاتاحة تصحيح التنبؤات في أوائل عام 1981 .

ويشمل التغييرات الحاسمة مؤخرا في النظام الاقتصادي العالمي جهود التنبؤ كثيرة التسهيل ، لكن التنبؤ قصير الأجل هو ، في حد ذاته ، مهمة طموحة لأنه ليم هناك الآن في أي من البلدان النامية اھتساوات إنتاج ملمحة ولا كاملة على عهد المروع المتاعية . ونحن نتعرف بأن هذه المتاولة الأولى لربح تنبؤات قصيرة الأجل بشأن البلدان النامية لن تكون كاملة ، لكننا نأمل أن تحفز التنبؤات البلدان المتعنة للمبعدة على تقديم اھتساوات أهدت تنقلها ، من نواتج المروع المتاعية ، متفردة ، ومزيد من المتعلقات من خطتها بشأن الاستثمار. المتاعي ونمو الناتج في المستقبل ، لنبده الطريقة يمكن أن تحفز باستمرار قاعدة المتعلقات التي نسعى الى تقديمها في هذه وغيرها من متفورات اليونيدو الى متفذي القرارات في البلدان النامية .

و "التقرير العالمي" من عام ١٩٨٦ ، ذاته غان "التقرير العالمي" الذي سبقه ، غرغان ريجيمان .
أولها تقديم استراتيجي لتدوير الحياة الحاضرة ولإفاق التنمية المتعاقبة فوراً في البلدان النامية (وتعد
التبويضات عنصراً أساسياً فيها) ، والثاني بحث موقوع خاص ذي تأثير كبير على عملية التنمية . لذلك درس
في أحد الفصول منه ، في سبعة تفنني فيها الدورات التي المعاشية ، تتاقص المعالة في قطاع المعاشية
التحويلية في بلدان الشمال المعاشية ذات الاقتصاد السوقي ، والفرض من هذا البحث هو تقرير مدى حدود
ذلك نتيجة للتدخل المعاشي في الجنوب . والاستنتاج ، وأن يمكن ترقفه ، لأن واردات الجنوب من السلع
المتمتع ببيع و نفقي قيمة ما يمدونه إلى الشمال ، هو أن مستوى المعالة في المعاشات التحويلية في
البلدان المعاشية الكبيرة ذات الاقتصاد السوقي قد أفاد من تنضج الجنوب . ويرجع السبب الرئيسي في
هبوط مستوى المعالة في المعاشة التحويلية التي يتباطأ معدل النمو الاقتصادي ، وتضارع التغيير التقني ،
والتحول الهيكلي في مكونات الطلب ، وليس إلى الواردات من البلدان النامية . وإنما نجد في هذه
الاستنتاجات سبباً مقعماً لتفني مستويات المعاشية ، وأتوكل إلى بلدان الشمال والجنوب على الوعاء اعارة
اهتمامها لهذه الرحالة .

لكن الرحالة الرئيسية الأخرى في هذا "التقرير العالمي" هي أن هناك فزمة طيبة لتدوير الانتعاش
في اقتصادات الشمال ، الذي بدأ في عام ١٩٨٢ ، ولاندخال بعض التحسين ، في عامي ١٩٨٦ و ١٩٨٧ ، على الأدي ،
المعتبر الذي ساد في عام ١٩٨٥ . وهذا يعني أن ملاح التنمية في معظم البلدان النامية في النصف الثاني
من الثمانينات تبتدئ ، على نحو ملموس ، أكثر انخفاً مما كانت عليه في السنوات الأولى من العقد .

وهناك عدد من العوامل تساهم في هذا التخالف الأكبر بالمقارنة "بالتقرير العالمي" من عام ١٩٨٥ .
فالتخوف في الشمال مستمر في الانخفاً ؛ وعلى وجه الخصوص ، يعني الهبوط الحاد في أسعار النفط فسي
أوائل عام ١٩٨٦ تحقيق مدخولات هامة في العملات الأجنبية عند معظم البلدان ، وانخفاض تكاليف المدخلات
المعاشية . ثم أن أسعار الفائدة توامل الانخفاً ، فتجمل تخفيف عبء الديون بعض الشيء على البلدان
النامية ؛ وربما كان في الجورج التي تجلبها البلدان المتقدمة النمو لتخفف ، تخفيفاً منقلاً ، قيمة دولار
الولايات المتحدة بالنسبة إلى سائر العملات الرئيسية ، دلالة على تزايد روح التعاون الاقتصادي الدولي .
وما سيخج عن ذلك من ازدياد النمو الاقتصادي في الشمال قياساً بعام ١٩٨٥ ، سيغفر الاقتصاد العالمي وحين
آفاق النمو في قطاع المعاشة التحويلية وبالنسبة للتنمية الشاملة للجنوب .

ومدى ابتهاج البلدان النامية لهذا الفرض لتحقيق المزيد من التقدم والتنمية ، يتوقف على
السياسات التي تعتمد عليها حكوماتها وعلى رزود فعل المستثمرين المحتملين في هذه البلدان وفي الخارج .
والمعروف الآن ، وقد أخذت أسواق السلع المعاشية في التسامي ، أن تبيحت التقة اللازمة للاستهلاك في
المعاشة . وسيخفف تسامي الطلب على رفع مستويات استخدام القدرات وعلى الاستثمار الجديد الذي يحتاج إليه
المعاشة في الجنوب حاجة ماسة . واليونيدو الجديدة على استعداد لمساعدة كل الأطراف الراغبين في أداء
دور نشيط في مستقبل التنمية المعاشية هذا ، الأكثر انخفاً ، الذي يبدو الآن في آفاق البلدان النامية .



دوربينغو أ . سيارون ، الأمين
المدير العام

序 言

工发组织于1986年初改为联合国的一个专门机构，作为改专的一部分，重新规划了工发组织的前景。我计划在本期和今后各期《全球报告》中介绍一下新的工发组织有关全球工业化的展望。同以往一样，工发组织的主要目标仍然是加速发展中国家的工业化。但新的工发组织将更加重视力图促进不同区域和不同国家之间的工业合作，并将寻求全世界的实业家以及各国政府积极参与实现此目标。由于我认为现在所需要的是各方共同努力以获得有益的具体成果，因此，我们可以发挥的新作用之一便是作为催化剂致力于促进发展中国家与发达国家中实际的和潜在的伙伴之间积极的相互作用。

为了发挥催化作用，我们将不得不再重讲究实效的而不是从意识形态立场出发的解决实际问题的办法。在不同的国家中，公共部门企业、私营企业和公私合营企业已经成功地建立起了工业。在某些工业部门中，小型工业和乡村工业已经做出了十分重要的贡献，而且我相信，今后它们将会更加普遍地作出贡献。在其他工业部门中，发展中国家总产出的一大部分是在跨国公司的直接援助下取得的，这一援助的效益应该得到承认。重要的是，一切工业项目，不论其是否由工发组织所援助，都应以高效率的方式来设计和执行。

这些工作重点的改变要求工发组织的活动范围也作某些改变，工发组织的活动范围已超越了仅作为一个提供技术援助机构的原有概念，而扩大到包括投资促进、工业技术方案、协商制度和工业调查与研究。我们的目标是将这些活动形成一个协调的相互作用的整体，而其一切组成部分都直接有助于我们工作的业务内容。

新工发组织的重点将是集中注意各个发展中国家的具体需要和动员范围最广泛的切实可行的工业合作形式以达到其目标，这又反过来要求对目前和今后的趋势与联系进行分析，而不是试图根据长期目的制定一项全球性工业发展计划。为此目的，1986年《全球报告》介绍了1986和1987年不同区域和尽可能多的不同国家中28个工业部门产出水平的短期预测。这种关于在主要贸易国家和世界其他地方正在发生和可能发生什么情况的详细资料是确定一个国家自己的行动方针和实现世界规模的顺利和协调的工业发展的关键性因素。为了顾及诸如石油跌价和利率下降等最新情况，推迟了《全球报告》的出版，以便在1986年初对所做预测加以修订。

近来全球经济体系中发生的变化使预测工作变得相当复杂，但短期预测工作本身就是一项十分艰巨的任务，因为目前所有发展中国家都没有工业分部门一级的新的全面的统计资料。我们认识到这项首次为发展中国家进行短期预测的工作将不会尽善尽美，但希望这一预测会促使许多所涉国家提供更多的有关工业各个部门产出的最新统计资料和更多的有关其今后工业投资和产出增长计划的资料。这样便可以不断改善我们试图在本出版物和工发组织其他出版物中为发展中国家决策者提供的资料基础。

与以往的《全球报告》一样，1986年《全球报告》有两项主要目的。首先是对目前形势和发展中国家的工业化远景进行年度审查（其中各项预测是关键的内容）；其次是审查对工业化进程具有主要影响的一个特殊问题。因此，本报告有一章审查了在保护主义呼声高涨的这一年北方工业市场经济国家中制造业部门就业水平不断下降的情况，以便确定这种情况在多大程度上是由南方的工业活动造成的。正如人们所料，由于南方进口制成品价值约为其向北方出口制成品价值的两倍，其结论认为，主要工业市场经济国家制造业的就业水平已由于南方的工业化而有所增长。制造业就业水平的下降主要是由于经济增长速度缓慢，技术变革步伐迅速和需求结构变化所造成的，而不是由于从发展中国家进口所造成的。我以为这些结论令人信服地说明了应该降低保护主义水平的理由，并恳请南方和北方的国家对这一信息予以注意。

然而，在《全球报告》的另一个主要信息则是，始于1983年的北方国家经济复苏有很大的可能会持续下去，而1985年实绩不稳的情况到1986和1987年可有所改善。这意味着大多数发展中国家80年代后半期的前景要比本年代初期的情况好得多。

与1985年《全球报告》相比，情况要乐观得多，这是由一些因素造成的。北方通货膨胀率不断下降，特别是1986年初石油价格猛跌对大多数国家来说将意味着可以节省大量外汇并降低工业投入的成本。利率不断下降，使发展中国家的债务负担有所减轻，而且发达国家为协调一致地降低美元与其他主要货币的比值而做出的努力可以表明国际经济合作精神的加强。北方由此取得的与1985年相比的经济增长将刺激世界经济并改善制造业部门增长和南方全面发展的前景。

发展中国家能够在多大程度上抓住这些机会以取得进一步的增长和发展将取决于其各自政府所采取的政策和其国内外潜在投资者的反应。现在工业货物市场不断扩大，对工业投资的信心应会恢复。需求日益增长将刺激生产能力利用率的提高和南方工业所迫切需要的投资。新的工发组织乐于向一切愿意为发展中国家似已在望的这一工业发展美好未来发挥积极作用的各方提供帮助。



总 干 事

小多明哥·L·夏松

Préface

Au début de 1986, l'ONUDI est devenue une institution spécialisée des Nations Unies et son orientation s'en trouve quelque peu modifiée. Dans la présente livraison du Rapport *Industrie et développement dans le monde* et dans les livraisons ultérieures, j'ai l'intention d'exposer l'optique dans laquelle la nouvelle ONUDI envisage l'industrialisation mondiale. Comme par le passé, l'objectif primordial de l'Organisation reste d'accélérer l'industrialisation dans les pays en développement. La nouvelle ONUDI s'attachera davantage encore à promouvoir la coopération industrielle entre les régions et pays et s'assurera à cette fin de la participation active des milieux industriels et des gouvernements dans le monde entier. Il faut maintenant que toutes les parties travaillent ensemble à obtenir des résultats concrets et utiles et nous devons donc notamment nous efforcer de jouer un rôle de catalyseur dans la promotion des interactions positives entre les partenaires actuels et potentiels dans les pays en développement et les pays développés.

Pour jouer ce rôle, il nous faudra traiter les problèmes concrets en donnant la préférence aux solutions pragmatiques sur les idéologies. Suivant les pays, l'industrialisation a été menée à bien par des entreprises du secteur public, des entreprises privées ou des entreprises d'économie mixte. Dans certaines branches, petite industrie et industries rurales ont apporté une forte contribution qui devrait se généraliser encore à l'avenir. Dans d'autres, une grande partie de la capacité totale de production des pays en développement a été créée avec l'aide directe de sociétés transnationales, dont il convient de reconnaître l'efficacité. L'important est que tous les projets industriels, aidés par l'ONUDI ou non, soient conçus et exécutés de façon efficace.

Ces orientations nouvelles imposent certains changements dans la gamme des activités de l'ONUDI, qui vont déjà au-delà de son mandat initial consistant à fournir une assistance purement technique, pour englober la promotion des investissements, un programme de technologie industrielle, le Système de consultations ainsi que des études et recherches industrielles. Notre objectif est d'assurer la coordination et l'interaction de ces activités en un ensemble dont tous les éléments contribuent directement aux aspects opérationnels de notre tâche.

La nouvelle Organisation s'intéressera avant tout aux besoins spécifiques des divers pays en développement et s'attachera à mettre en œuvre toutes les formes concrètes de la coopération industrielle pour atteindre leurs objectifs : ce qui amène à analyser les tendances et les liaisons actuelles et futures au lieu de s'efforcer d'élaborer un plan global de développement industriel fondé sur des objectifs à long terme. C'est pourquoi le présent Rapport 1986 donne pour 1986 et 1987 des prévisions à court terme sur le niveau de production dans 28 branches d'industries de diverses régions et dans autant de pays que possible. Ces informations détaillées sur l'actualité et son évolution probable chez les principaux pays commerçants et dans le reste du monde sont un élément crucial pour déterminer la voie propre à chaque pays et assurer un développement industriel ordonné et harmonieux à l'échelle mondiale. La publication du présent Rapport a été retardée pour que ces prévisions puissent être révisées au début de 1986, compte tenu des événements récents comme la chute du prix du pétrole et la baisse des taux d'intérêt.

Les changements intervenus récemment dans le système économique mondial compliquent considérablement les efforts de prévision, mais la prévision à court terme est par définition une tâche ambitieuse, car il n'existe pas à l'heure actuelle de statistiques de production à jour ou complètes par branche d'industrie pour tous les pays en développement. Nous sommes conscients que cette première tentative de prévision à court terme pour les pays en développement n'est pas parfaite, mais nous espérons qu'elle encouragera les nombreux pays intéressés à fournir davantage de statistiques à jour sur la production des diverses branches de leur industrie et d'informations sur leurs plans d'investissements et de croissance de la production dans l'industrie. C'est ainsi que nous pourrions régulièrement améliorer la base de données que nous voulons mettre à la disposition des dirigeants dans les pays en développement par le présent Rapport et par d'autres publications de l'ONUDI.

Comme dans le précédent, le Rapport 1986 a deux grands objectifs. Le premier est de présenter une analyse annuelle de la situation actuelle et des perspectives immédiates pour l'industrialisation des pays en développement (dont les prévisions sont un élément clef); le deuxième consiste à examiner un sujet donné d'une importance capitale pour le mouvement d'industrialisation. Ainsi, pour cette année où se multiplient les appels au protectionnisme, un chapitre du Rapport est consacré à la question de la baisse de l'emploi dans le secteur manufacturier des pays du Nord industrialisés à économie de marché, afin de déterminer dans quelle mesure cette baisse est imputable à l'activité industrielle du Sud. Comme on peut s'y attendre, étant donné que le Sud importe environ deux fois la valeur des articles manufacturés qu'il exporte au Nord, la conclusion est que l'industrialisation du Sud a eu des conséquences positives pour l'emploi dans l'industrie manufacturière des grands pays industrialisés à économie de marché. La baisse de l'emploi dans ce secteur est surtout due à la

lenteur de la croissance économique, à la rapidité des progrès techniques et à la modification de la structure de la demande, non aux importations en provenance des pays en développement. Ces conclusions constituent, selon moi, une raison suffisante pour réduire le protectionnisme et je lance un appel fervent aux pays du Nord et du Sud pour qu'ils entendent ce message.

L'autre grand message du Rapport est qu'il y a de bonnes chances pour que la reprise dans les économies du Nord, amorcée en 1983, se maintienne et que les résultats incertains de 1985 s'améliorent quelque peu en 1986 et 1987. Il en résulte que les perspectives d'industrialisation dans la plupart des pays en développement pour la deuxième moitié de la décennie sont bien plus brillantes qu'au début des années 80.

Un certain nombre de facteurs contribuent à expliquer ce regain d'optimisme comparé au Rapport 1985. L'inflation au Nord continue à diminuer et, grâce à la chute du prix du pétrole au début de 1986 notamment, la plupart des pays pourront réaliser des économies considérables de devises étrangères et payer moins les facteurs de leur production industrielle. Les taux d'intérêt continuent à baisser, ce qui contribue à alléger un peu le fardeau de la dette des pays en développement; et les efforts déployés par les pays développés pour réduire de façon coordonnée la valeur du dollar des Etats-Unis par rapport aux autres grandes monnaies pourraient bien annoncer un nouvel esprit de coopération économique internationale. L'accélération de la croissance économique par rapport à 1985 qui en résultera au Nord stimulera l'économie mondiale et améliorera les perspectives de croissance du secteur manufacturier et du développement global du Sud.

La mesure dans laquelle les pays en développement profiteront de ces nouvelles perspectives de croissance et de développement dépendra des politiques adoptées par leur gouvernement et des réactions des investisseurs potentiels dans leurs pays et à l'étranger. Alors que grandissent les marchés pour les produits industriels, la confiance dans les investissements industriels devrait renaître. La croissance de la demande favorisera une meilleure utilisation de la capacité et les investissements nouveaux dont l'industrie dans le Sud a tant besoin. La nouvelle ONUDI est prête à aider toutes les parties qui sont disposées à jouer un rôle actif en vue de cet avenir meilleur, qui semble maintenant promis au développement industriel du tiers monde.

Le Directeur général,



DOMINGO L. SIAZON Jr

Предисловие

В начале 1986 года ЮНИДО стала специализированным учреждением Организации Объединенных Наций, и в рамках этой реорганизации перспективы ЮНИДО приобретают до некоторой степени новые формы. В этом и будущих выпусках Глобального доклада я планирую представить перспективы обновленной ЮНИДО в области глобальной индустриализации. Как и прежде, главной задачей Организации остается ускорение процесса индустриализации в развивающихся странах. Но ЮНИДО в своем новом качестве будет уделять больше внимания поиску путей содействия промышленному сотрудничеству между различными регионами и странами и будет добиваться активного участия промышленников, а также правительств всех стран мира в достижении этой цели. Поскольку я считаю, что сейчас все стороны должны совместно добиваться конкретных и полезных результатов, одна из наших новых задач состоит в том, чтобы активизировать усилия, направленные на установление конструктивного взаимодействия между фактическими и потенциальными партнерами в развивающихся и развитых странах.

Для того чтобы играть роль катализатора, мы должны будем делать акцент не на идеологические соображения, а на прагматические решения практических проблем. Промышленность различных стран успешно развивается на основе создания государственных предприятий, частных предприятий и предприятий со смешанной собственностью. В некоторых отраслях промышленности немалое значение приобретает мелкие предприятия и предприятия сельских районов, и я считаю, что в будущем это значение должно стать еще больше. В других отраслях промышленности значительная часть общего объема производства развивающихся стран складывается при непосредственной помощи транснациональных корпораций, и следует признать эффективность этой деятельности. Важно, чтобы все промышленные проекты, осуществляемые с помощью или без помощи ЮНИДО, проектировались и выполнялись эффективно.

Такое смещение акцентов требует внесения некоторых изменений в сферу деятельности ЮНИДО, которая уже выходит за рамки первоначальной концепции учреждения, предоставляющего чисто техническую помощь, и включает в себя содействие инвестированию, программу в области промышленной технологии, Систему консультаций и промышленные исследования и разработки. Наша цель состоит в том, чтобы придать этой деятельности скоординированный, согласованный и цельный характер, чтобы все элементы непосредственно входили в функциональные звенья нашей работы.

Организация в своем новом качестве будет уделять основное внимание конкретным нуждам отдельных развивающихся стран и использованию самого широкого ряда практических форм промышленного сотрудничества в целях достижения ими своих целей, что в свою очередь требует анализа текущих и будущих тенденций и связей вместо попыток составить глобальный план промышленного развития на основе долгосрочных целей. В связи с этим в Глобальном докладе 1986 года приводятся краткосрочные прогнозы уровня производства в 28 отраслях промышленности на 1986 и 1987 годы в различных регионах с указанием максимально возможного количества различных стран. Такая подробная информация о том, что происходит и что может произойти в основных странах, ведущих торговлю, и в остальных странах мира, является основополагающим элементом для выработки отдельной страной собственного направления деятельности и для достижения равномерного и гармоничного промышленного развития в мировом масштабе. Для того, чтобы учесть последние события, такие, как падение цен на нефть и снижение ставок процента, публикация настоящего Глобального доклада была задержана, с тем чтобы можно было пересмотреть прогнозы на начало 1986 года.

Последние изменения в мировой экономической системе значительно осложняют процесс прогнозирования, но и краткосрочное прогнозирование — задача в своей основе грандиозная, поскольку в настоящее время нет ни последних, ни полных статистических данных о производстве на уровне отдельных отраслей промышлен-

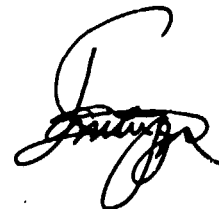
ности по всем развивающимся странам. Мы сознаем, что эта первая попытка составить краткосрочные прогнозы для развивающихся стран будет несовершенной, но в то же время надеемся, что эти прогнозы послужат стимулом для многих заинтересованных стран к разработке более современной статистики об объеме производства в отдельных отраслях промышленности и к расширению объема информации о своих планах промышленного инвестирования и увеличения объема производства в будущем. Таким образом, информационную базу, которую мы пытаемся предоставить в этой и других публикациях ЮНИДО для директивных органов развивающихся стран, можно постоянно совершенствовать.

Как и предыдущий Глобальный доклад, Глобальный доклад 1986 года преследует две основные цели. Первая заключается в том, чтобы осветить сложившееся за год положение и ближайшие перспективы индустриализации в развивающихся странах (где ключевым элементом являются прогнозы), а вторая - рассмотреть специальную тему, имеющую большое значение для процесса индустриализации. Речь идет о том, что одна из глав в год, когда особенно громко раздаются призывы к протекционизму, посвящена вопросу о сокращении занятости в обрабатывающей промышленности индустриальных стран Севера с рыночной экономикой, с тем чтобы определить, в какой степени это является следствием промышленной деятельности стран Юга. Как и можно было ожидать, поскольку импорт Юга примерно в два раза выше стоимости промышленных товаров, которые он экспортирует в страны Севера, делается вывод о том, что уровень занятости в обрабатывающей промышленности крупных индустриальных стран с рыночной экономикой увеличился за счет индустриализации Юга, и снижение уровня занятости в обрабатывающей промышленности обусловлено не импортом из развивающихся стран, а главным образом медленными темпами экономического роста, быстро происходящими техническими изменениями и структурными изменениями в характере спроса. Я считаю эти выводы убедительной причиной для сокращения уровня протекционизма и убедительно прошу страны Севера и Юга обратить внимание на эту информацию.

Другая основная информация, содержащаяся в настоящем Глобальном докладе, заключается в том, что существуют хорошие возможности для стабилизации подъема экономики стран Севера, который начался в 1983 году, и для того, чтобы в 1986 и 1987 годах в какой-то степени активизировать вялое развитие, наблюдавшееся в 1985 году. Это означает, что перспективы индустриализации большинства развивающихся стран во второй половине 80-х годов выглядят значительно лучше, чем в начале этого десятилетия.

По сравнению с Глобальным докладом 1985 года повышению оптимизма в этом отношении способствует ряд факторов. Темпы инфляции на Севере продолжают снижаться, и, в частности, резкое падение цен на нефть в начале 1986 года означает существенную экономию валюты для большинства стран и более низкие затраты на промышленные ресурсы. Ставки процента продолжают падать, позволяя в некоторой степени облегчить бремя задолженности развивающихся стран, а совместные усилия развитых стран, направленные на снижение стоимости доллара США по отношению к другим основным валютам, могут свидетельствовать об улучшении климата международного экономического сотрудничества. Прошедшее в результате увеличение экономического роста на Севере по отношению к 1985 году оживит мировую экономику и улучшит перспективы роста в обрабатывающей промышленности, а также перспективы общего развития стран Юга.

То, в какой степени развивающиеся страны воспользуются этими возможностями для дальнейшего роста и развития, будет зависеть от политики их правительств и реакции потенциальных инвесторов в их странах и за границей. Сейчас, когда рынки промышленных товаров расширятся, доверие к инвестированию в промышленность следует восстановить. Возрастание спроса будет способствовать более широкому использованию мощностей и новому инвестированию, в котором так нуждается промышленность Юга. ЮНИДО в своем новом качестве готова помогать всем сторонам, желающим играть активную роль в этом более светлом будущем промышленного развития, которое открывается сейчас перед развивающимися странами.



Доминго Л. Сиэзон, мл.
Генеральный директор

Prefacio

A principios de 1986, la ONUDI se transformó en un organismo especializado de las Naciones Unidas y, como parte de esta reorganización, la perspectiva de la ONUDI está siendo objeto de cierto reajuste. En el presente número y en números futuros del *Informe Mundial*, me propongo presentar la perspectiva de la nueva ONUDI sobre la industrialización mundial. Como antes, el objetivo principal de la Organización seguirá siendo acelerar la industrialización de los países en desarrollo. No obstante, la nueva ONUDI tratará cada vez más de promover la cooperación industrial entre regiones y países diferentes, y tratará de obtener la participación activa de industriales y de gobiernos de todo el mundo para alcanzar este objetivo. Dado que, a mi juicio, lo que se precisa en la actualidad es que todas las partes colaboren para lograr resultados concretos y útiles, una de nuestras nuevas funciones es la de ser un agente catalizador de los esfuerzos que se hacen por fomentar interacciones positivas entre copartícipes reales y potenciales en países en desarrollo y desarrollados.

Para poder desempeñar esta función catalizadora, tendremos que dar más importancia a las soluciones pragmáticas de problemas prácticos que a las basadas en motivos ideológicos. En distintos países, la industria ha sido establecida con éxito por empresas del sector público, por empresas privadas y por empresas de propiedad mixta. En algunas ramas de la industria, las empresas pequeñas y rurales han hecho una aportación importante y creo que su contribución será incluso más extensa en el futuro. En otras ramas de la industria, una gran proporción de la producción total de los países en desarrollo se ha establecido con la asistencia directa de empresas transnacionales, y debe reconocerse la eficacia de esta contribución. Lo importante es que todos los proyectos industriales, con la asistencia de la ONUDI o sin ella, sean concebidos y puestos en práctica con eficiencia.

Los cambios introducidos en los criterios de acción exigen algunas modificaciones en la serie de actividades que desarrolla la ONUDI y que ya superan el concepto original de un organismo que meramente presta asistencia técnica para incluir la promoción de las inversiones, un programa sobre tecnología industrial, el Sistema de Consultas y estudios e investigaciones industriales. Nuestro objetivo es amoldar estas actividades en un todo coordinado e interactivo en el que todos los elementos contribuyan directamente a los aspectos operacionales de nuestra labor.

La nueva Organización concentrará su atención en las necesidades particulares de los países en desarrollo y en la movilización de la mayor variedad posible de formas prácticas de cooperación industrial para alcanzar sus objetivos, lo que exige a su vez un análisis de las tendencias y las vinculaciones actuales y futuras, en lugar de empeñarse en formular un plan global de desarrollo industrial basado en metas a largo plazo. A estos efectos, el *Informe Mundial* de 1986 presenta pronósticos a corto plazo para 1986 y 1987 del nivel de producción de 28 ramas de la industria en distintas regiones y en el mayor número posible de países. Esta información detallada sobre lo que está ocurriendo y lo que probablemente ocurrirá en los principales países que comercian y en el resto del mundo es un elemento crucial para establecer el rumbo que debe seguir la acción de un determinado país y para lograr un desarrollo industrial continuo y armonioso a escala mundial. Para tener en cuenta acontecimientos recientes como la caída del precio del petróleo y la disminución de los tipos de interés, se retrasó la publicación del presente *Informe Mundial* a fin de poder revisar las previsiones a principios de 1986.

Los cambios que se han producido recientemente en el sistema económico mundial complican bastante las actividades de previsión, pero la previsión a corto plazo es inherentemente una tarea ambiciosa porque en este momento no existen ni estadísticas de producción actualizadas ni estadísticas completas por ramas industriales para todos los países en desarrollo. Reconocemos que esta primera tentativa de producir previsiones a corto plazo para los países en desarrollo no será perfecta, pero esperamos que las previsiones estimulen a los muchos países interesados a proporcionar más estadísticas actualizadas sobre la producción de distintas ramas de la industria y más información sobre los planes de inversión industrial y el crecimiento de la producción en el futuro. De este modo, podrá mejorarse continuamente la base de información que tratamos de proporcionar en esta y otras publicaciones de la ONUDI para los encargados de adoptar decisiones en países en desarrollo.

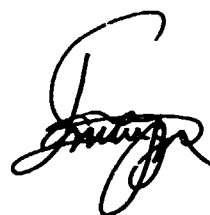
Al igual que el anterior *Informe Mundial*, el de 1986 tiene dos propósitos principales. El primero es proporcionar una reseña anual de la situación actual y las perspectivas inmediatas de industrialización en países en desarrollo (de la que las previsiones constituyen un elemento clave), y el segundo es examinar un tema especial que tiene una influencia importante en el proceso de industrialización. Así pues, en un año en el que proliferan los llamamientos en favor del proteccionismo, en un capítulo se examina la disminución del empleo en el sector manufacturero de las economías industriales de mercado en el Norte, con la finalidad de determinar hasta qué punto ha sido consecuencia de la actividad industrial en el Sur. La conclusión, como sería de esperar puesto que

el Sur importa aproximadamente el doble del valor de manufacturas de lo que exporta al Norte, es que el nivel de empleo de las industrias manufactureras de las principales economías industriales de mercado se ha beneficiado de la industrialización del Sur. El descenso del nivel de empleo en la industria manufacturera se ha debido principalmente a la baja tasa de crecimiento económico, a la rapidez del cambio técnico y a la modificación estructural de la composición de la demanda, y no a las importaciones procedentes de países en desarrollo. Creo que estas conclusiones son una razón convincente para reducir los niveles de protección, y ruego encarecidamente a los países del Norte y del Sur que presten atención a este mensaje.

No obstante, el otro mensaje principal de este *Informe Mundial* es que existe una buena oportunidad de que pueda mantenerse la recuperación de las economías del Norte, que comenzó en 1983, y de que el deficiente rendimiento de 1985 puede mejorarse algo en 1986 y 1987. Esto significa que las perspectivas de industrialización de la mayoría de los países en desarrollo en la última mitad del decenio de 1980 parecen bastante más brillantes que en los primeros años del decenio.

Una serie de factores contribuye a este mayor optimismo en comparación con el *Informe Mundial* de 1985. Sigue disminuyendo la inflación en el Norte y, en particular, el marcado descenso de los precios del petróleo a principios de 1986 traerá consigo un considerable ahorro de divisas para la mayoría de los países y hará que los costos de los insumos industriales sean más bajos. Los tipos de interés siguen disminuyendo, aliviando en cierto modo la carga de la deuda de los países en desarrollo, y los esfuerzos de los países desarrollados por reducir de manera coordinada el valor del dólar de los Estados Unidos en relación con otras divisas principales podría indicar un mayor espíritu de cooperación económica internacional. El consiguiente aumento del crecimiento económico en el Norte en comparación con 1985 estimulará la economía mundial y mejorará las perspectivas de crecimiento del sector manufacturero y del desarrollo general del Sur.

La medida en que los países en desarrollo aprovechen estas oportunidades de un mayor crecimiento y desarrollo dependerá de las políticas adoptadas por sus gobiernos y de las reacciones de posibles inversionistas en sus países y en el extranjero. En un momento en que los mercados de bienes industriales crecen, debería reavivarse la confianza para invertir en la industria. La creciente demanda estimulará mayores niveles de utilización de la capacidad, así como las nuevas inversiones que tanto necesita la industria del Sur. La nueva ONUDI está dispuesta a ayudar a todos aquellos cuya voluntad sea desempeñar una parte activa en este futuro más prometedor para el desarrollo industrial, que parece ser hoy la perspectiva de los países en desarrollo.



DOMINGO L. SIAZON Jr.
Director General

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EXPLANATORY NOTES

References to dollars (\$) are to United States dollars, unless otherwise stated.

References to tonnes are to metric tonnes, unless otherwise specified.

Use of a dash between dates (e.g. 1980-1982) indicates the full period involved, including the beginning and end years.

A slash (1980/1981) indicates a crop year or a financial year.

References to ISIC codes are accompanied by a descriptive title (for example, ISIC 323: "Manufacture of leather and products of leather, leather substitutes and fur, except footwear and wearing apparel"). Considerations of space, however, may require a shortening of this description (for example, ISIC 323 may be referred to simply as "Leather and fur products"). In some cases, ISIC categories have been aggregated and the description titles adjusted accordingly.

The term "billion" signifies a thousand million.

For information on member countries comprising a region (e.g. North Africa and West Asia), see the statistical annex.

The following symbols have been used in tables:

Three dots (. . .) indicate that data are not available or are not separately recorded.

A dash (—) indicates that the amount is nil or negligible.

Totals may not add precisely because of rounding.

The following technical abbreviation is used in this publication: b/d (barrels per day).

The following abbreviations and acronyms appear in this publication:

CMEA	Council for Mutual Economic Assistance
EEC	European Economic Community
FAO	Food and Agriculture Organization of the United Nations
GATT	General Agreement on Tariffs and Trade
GDP	Gross domestic product
ILO	International Labour Office
ISIC	International Standard Industrial Classification of all Economic Activities
MVA	Manufacturing value added
OECD	Organisation for Economic Co-operation and Development
OPEC	Organization of Petroleum Exporting Countries

This report is based on information available as at June 1986.

Introduction

Industrialization remains an issue of global concern. The pace of steady growth in global industrialization in the 30 years since the end of the Second World War began to falter in the late 1970s. Different parts of the world industrial economy began to experience unexpected problems. New developments on the technological front, intense competition for stagnating export markets, rising unemployment and a second major increase in the price of oil within a decade coalesced to generate the need for radical structural change in the industrialized countries of the North. Their response was to deflate and retrench from expansionary policies. The result was a slow-down in the growth of manufacturing output and trade throughout the world economy. In the absence of the locomotive force of industrial growth in the North, a majority of the economies of the South suffered stagnant, if not falling, per capita incomes.

This slow-down, which began in 1980, was the first major check to the post-war process of global industrial expansion. Three years of recession in 1980-1982 were followed by a sharp recovery in the United States but its impact was unevenly felt during 1983 and 1984. Economies falling within the economic zone comprising the United States of America, Japan and the Pacific zone benefited from higher exports. The lack of response from Western Europe in terms of parallel expansionary policies led to a rising trade imbalance for the United States. During 1985, the world economy was becalmed as the growth rate in the United States faltered (see box). The misalignment of currencies, especially the high value of the dollar, threatened to cause a sharp reversal of the brief recovery. In the event, the United States economy proved more buoyant than expected. But the persisting high value of the dollar, which threatened to reverse the recovery into a recession, brought exchange markets into discredit. The major economic powers in the North became convinced that exchange rate adjustments must be managed multilaterally and should not be left to the free market.

The early months of 1986 witnessed a fundamental shift in the behaviour of oil prices. For the first time since 1973, the price of crude oil fell dramatically, and is expected to stay at roughly half the level it enjoyed in 1985. Such a dramatic reversal tempts speculation that perhaps now one could see the end of seven years of slow and stagnant growth in the world economy. Although they take time to work themselves through, lower oil prices will definitely give a boost to the world economy. So also will the lower interest rates and, again with a time lag, the more sensible parity for

the dollar. But the upward revision in 1986 growth forecasts for the countries of the Organisation for Economic Co-operation and Development (OECD) only adds a marginal increase to the 3 per cent per annum of earlier UNIDO forecasts, which did not take these changes into account. This is because the happy coincidence of lower oil prices, lower interest rates and lower dollar parity is taken as a substitute for, rather than a spur to, a co-ordinated deflation by the economies of the North. Such a deflation was urged in the last *Global Report* and the case for it is still overwhelming [1]. The oil price cut is welcomed for its positive effects on real incomes and industrial costs, and it has helped to avoid a recession in 1986. But in the absence of reinforcing action, 1987 may still be a year of moderate slow-down in growth.

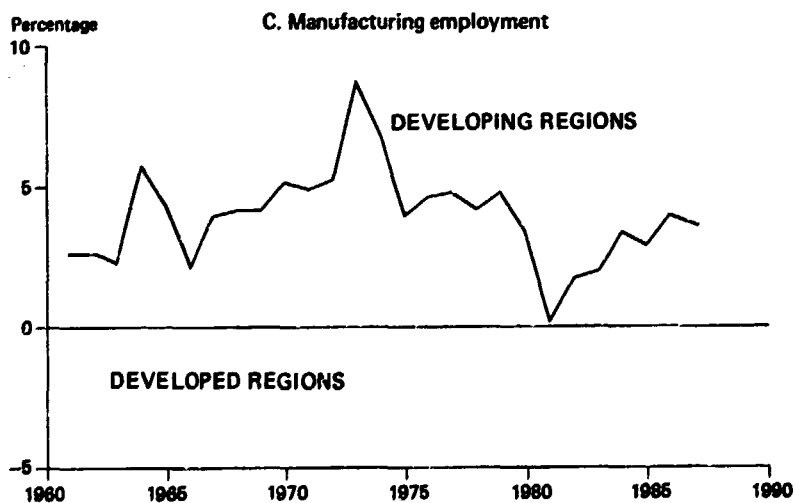
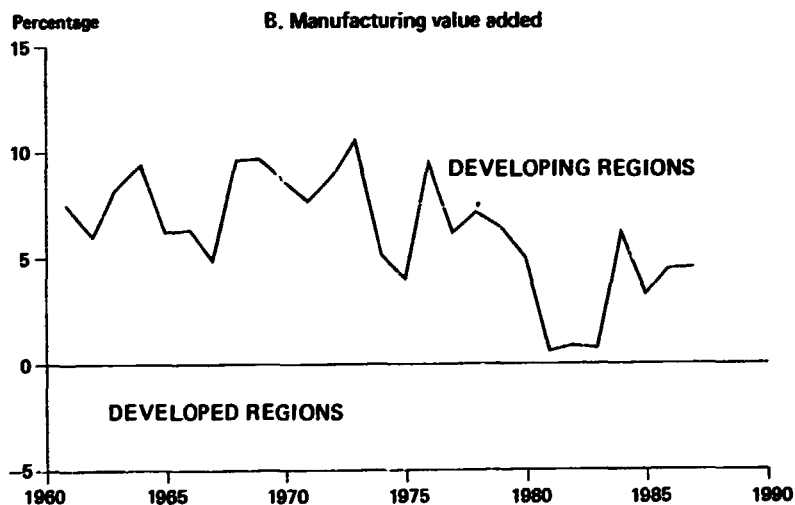
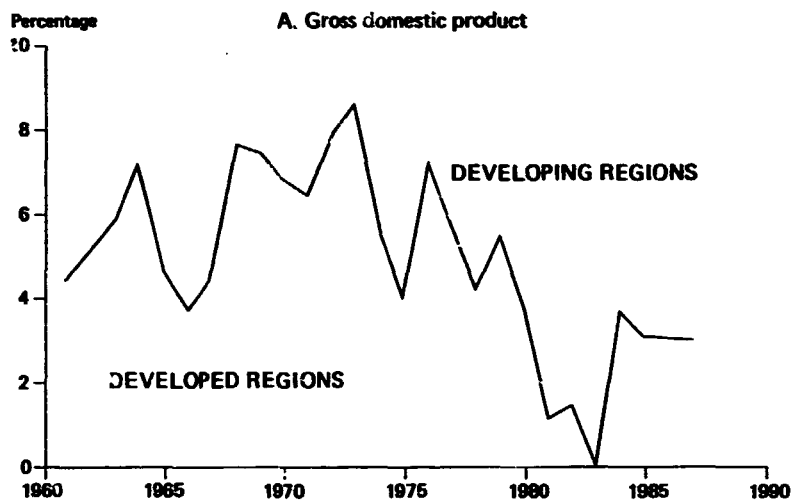
The effects of the fall in oil prices, though positive overall, will be regionally biased. The oil price rise of 1973 affected the North adversely, but, in the South, the oil-exporting economies in particular received a boost to their growth performance. The second oil price rise affected both North and South adversely, but this result was traceable as much to the macro-economic policies followed in the North as to the oil price rise itself. The fall in oil prices will similarly benefit oil importers but adversely affect oil exporters, and the positive effects may well be limited if appropriate macro-economic policies are not followed.

Even in the oil-importing developed economies of the North, the effects of lower oil prices on the financial system could still prove to be problematical. The growth of oil-related indebtedness, both domestic and international, has been enormous during the last 10 years, and recent price developments make its repayment difficult in many cases. Thus, while the fall in interest rates may boost the industrial growth prospects in both the North and the South generally, the existing debt burden in many developing countries and the curtailed investment plans in others will prohibit them from reaping the full benefits of the interest rate cuts.

The mismatch of the international parities for the dollar and the reluctance of markets to force a fall in its value during 1985 inspired an internationally co-ordinated intervention late in the year. There has been, by contrast, a distinct lack of desire on the part of the North to ease the fall in oil prices. But these problems cannot be isolated from each other or from the global growth process.

The logic of the shift in the attitudes of the developed market economies about market intervention for the dollar should be extended to the global

Box: Growth rates of developed and developing regions



Sources: United Nations National Accounts Statistics; United Nations Industrial Statistics.

recovery process itself. The structure of the world industrial economy as well as its recent experience reinforces the need to think globally on behalf of all its separate parts. But need is one thing, its realization on the part of the participants in the global economy is a different matter.

The international economic system comprising trade and financial relations, as well as the asymmetrical distribution of capital resources and power, compels the South to wait for action from the North. The costs of inaction in matters of reflation and of delay in the reform of the system of exchange rates and debt refinancing are borne largely by the South. If the growth impulse weakens when the boost given by the oil price fall is spent, the volatility of exchange rates may be reborn, bringing back with it high real interest rates.

But while the distribution of power and resources is asymmetrical, and the costs of a slow-down in growth are unevenly borne, the perceptions of some observers constitute a powerful source of resistance to change. In the face of growing import penetration and eroding industrial employment, there has been in the developed market economies a withdrawal from the multi-lateralism that characterized the international economic system in its years of healthy growth [2]. There is a resurgence of protectionist sentiment directed particularly against a handful of economies of the South which succeeded in breaking into the markets for manufactured goods in the North [3].

This constellation of economic and political conditions forms the background against which the second annual *Global Report* should be read. It represents an attempt to assess and analyse the multiple connections between industrial growth and international trade and payments patterns, within and between major regions of both the South and the North, and between the North and the South. It also breaks new ground as the first of a planned series, the primary function of which will be to produce consistent, short-term global forecasts in sufficient sectoral and regional detail to enable each *Global Report* to serve as "an advance warning device" alerting policy makers to future problems that must be tackled.

The many links that bind the economies of the South to those of the North through trade, debt and exchange rates will be discussed. As the first *Global Report* argued, there is a parallelism between growth in the two regions. But there is also a need to appreciate the differences among developing economies, both in the quality and in the extent of their industrialization. Some developing countries attain a degree of industrial development that exposes them immediately and strongly to changes emanating from the developed market economies of the North. As the latter face problems of structural change induced by new technological developments ([4], [5]), their efforts to restructure their industrial economies affect the trade patterns of selected developing countries with a high share on manufacturing. Some of the selected developing countries overlap with others that are burdened with severe debt problems and threatened by indefinite postponement of a solution to their problems if there is any economic contraction or rise in protectionism in the North.

But the majority of the economies of the South are still trying, by prodigious efforts, to build up their industrial structures. They see in industrial growth the major, if not the sole, way of achieving sustained growth in the living standards of the vast majority of their population. The relevance of industry to all sectors of their economies, from food production and distribution to urban and rural housing and health, is patent to policy makers in the South. But they still earn their foreign exchange from exports of primary products, with manufactures playing only a small though rapidly growing role. They need stable prices for their primary product exports and growing markets for their industrial products, which are mainly labour-intensive and produced with simple, well-known technologies.

A third group of developing economies is composed of the least developed countries. They need industrial technologies to help agricultural production, build up rural transport and communications, and assist in the education and training of their people. With few resources to spare for export, they look to the international economic system for long-term credit at low rates of interest to help them embark on their long-term development process.

Neither the middle-level developing economies nor the least developed are insulated against the short-term fluctuations and longer-term structural changes emanating from the North. The position of the selected developing countries with a high share in manufacturing is severely exposed in this respect. The availability of capital resources is increasingly uncertain and the costs are high. With continuing high unemployment in the North, not only these selected developing countries but also the middle-level economies face slow growth in their traditional export markets and a rising protectionist barrier against their less sophisticated manufactured exports, which may compete against sunset industries [6].

But an even more serious threat than any of these for the South's attempts to industrialize comes from the possibility that their low-technology products will be devalued by the consequences of the new technology that is leading to a restructuring of the economies of the North. For beneath the ebb and flow of macro-economic magnitudes, there is a profound change in industrial technology, a quantum leap in the speed of industrial change that has been called the "fourth Industrial Revolution". The new technology is already creating profound shifts in both the regional structure and the product mix of industrial production in developed market economies. It has begun to alter the previous large-scale, standardized, assembly-line pattern of industrial production. It has raised fundamental questions about the nature and future of industrial work.

But if these changes have in the first instance mainly affected the North, the South is not insulated from their effects. In adopting industrialization as their basic strategy for sustained and widespread growth in living standards, the developing economies of the South also took over the technology prevalent in the North during the 1960s, which was based on the factory system and the assembly line. This technology exploits economies of scale through the establishment of a cluster of large industrial units in key sectors to

launch the industrialization process. It is energy-intensive and concentrated in terms of spatial location, and basically represents the legacy of the second and third Industrial Revolutions.

Thus the industrializing process in the South has led to the establishment of a series of industries, including steel, textiles, leather and footwear, which had played a central role in the success achieved by developed countries in the 1960s.

The rapid rates of growth in manufacturing value added (MVA) in the years up to 1980, the rising share of the South in world trade in manufactures and the seriousness with which the developed market economies view competition from the economies of the South all reflect the choices made by developing countries at the outset of their march towards industrialization.

The South not only chose the technologies successfully used by the North in its industrializing efforts, it also used an export-oriented strategy for industrial growth. Indeed, the international agencies and the aid donors from the North insisted that the path of growth through trade was in the best interest of the South and of the world, and whenever possible required that an outward-looking strategy be followed. The North has now turned inwards in its own growth strategy and is questioning the virtues of multilateralism. As it begins to face a modicum of competition from the South, the North is suddenly demanding that the rules of the game be changed. In its attempts to build up protectionist barriers against the South it is frustrating the efforts launched by the South—often at its own insistence. When the doors are shut against the few economies in the South that have successfully followed the strategy of industrial growth through export trade, what hopes can be entertained by the bulk of developing countries that they will one day succeed in their industrializing efforts? For these countries the Industrial Revolution remains a promise unfulfilled.

But these obstacles of protectionism and slow growth in the North are short-term problems. This *Global Report* also gives advance warning signals about the long-term prospects for the industrialization of the South. The comparative advantage that economies of the South increasingly enjoyed over the North in such crucial sectors as steel and textiles was due to the combination of a well-known technology and lower labour costs. The South's industrial growth was on the extensive margin, not the intensive margin: the growth in manufacturing value added came more from an expansion in industrial employment than an increase in productivity. Despite this, the low initial level of wages and their relatively slower growth in the South compared with the North gave developing economies a competitive edge in some manufacturing activities.

Thus, in a relatively short period of its industrialization the South imbibed the lessons of the second Industrial Revolution. The newer industries—automobiles, electrical and chemical products and even electronic products—brought forth by the third Industrial Revolution are finding their niche in the South. The advent of the fourth Industrial Revolution, however, raises serious questions about the future course to be adopted. The extraordinary rise in energy

prices and the fears about the likely exhaustion of material resources in the early 1970s triggered a search for technologies that were efficient in their use of energy and raw materials. Although subsequent events have perhaps only temporarily reversed the trend in energy prices and reduced fears about early exhaustion of resources, the technological advances are irreversible. Innovations in the field of micro-electronics, arising from inventions made in the 1940s but long dormant, also accelerated in the late 1970s, opening up a new trend towards miniaturization.

A great change has occurred during the last five years or so in industrial technology. Much attention has been focused on the efforts of developed countries to restructure their industries in response to the fourth Industrial Revolution. These efforts at restructuring are legitimate concerns of UNIDO, and the present *Global Report* examines changes in developed market economies in some detail. High technology has been the obvious focus of concern. Although forebodings concerning the impact of advanced technology have been current for many years past, it is in the 1980s that high technology has become an industrial reality. The very term "high technology" and the genuine revolution it describes have downgraded previously existing technologies to the status of low and medium technologies.

But if the growth of new industries and the decline of old industries—the so-called sunrise and sunset industries—engaged public attention in developed market economies in the early stages, a new phase is discernible, at least in those developed market economies (Japan and United States) that are in the vanguard of the restructuring process. This is the process whereby the old industries using low and medium technologies are now being rejuvenated through an injection of high-technology inputs. The process is as yet in its early stages, but the warning signals are clear for developing countries ([7], [8]).

Put bluntly, the danger facing the South is that if it continues along the path it has pursued, it may find itself trapped in the wrong Industrial Revolution. Having hitherto invested its scarce resources in what was clearly the best strategy available, it is threatened by the erection of barriers against its exports in the immediate future, and by the medium-term prospect that the technologies it has been using will be progressively devalued. As the fourth Industrial Revolution proceeds apace and permeates and transforms the industrial structures of the North, the South may find itself producing manufactured goods with obsolete, energy-intensive and spatially centralizing technologies—goods that may no longer be able to withstand international competition from rival products manufactured in the North with the new technologies. Far from attaining the status of industrialized countries, the economies of the South may find themselves the modern equivalents of "hewers of wood and drawers of water". Having worked hard to diversify away from primary products and to launch themselves on a path of industrial growth, they may once again become peripheral providers of raw materials, migrant labour and tourist attractions. The promise of the Industrial Revolution may never be fulfilled for the poorest regions. This is a warning which must be

heeded by those in a position to influence the global economy.

It is UNIDO's concern that warning signals be issued early so that timely action can be taken. Industrial projects require a long lead time and careful appraisal before being undertaken. The provision of technical assistance to developing countries in the selection of their industrial projects has been one of the main activities of UNIDO. The present *Global Report*, by drawing on expertise from several departments of UNIDO, attempts to provide a much-needed global long-term economic perspective in this difficult field. It analyses recent developments in the North that have an impact on the South, and provides forecasts on a regional and country-wide basis for 1986 and 1987, translating them into detailed future projections for 28 industrial sectors. It is hoped that this will prove a helpful guide to industrial and economic decision-makers, whether in the public or as the private domain in both the South and the North. In future *Global Reports*, a detailed analysis of technology policy options for the South will be featured.

Overview of the *Global Report*

Chapter I provides an analysis of the current situation by region and gives globally consistent forecasts for the two years ahead. This will be a continuing feature in future *Global Reports*. This departure was made despite the fact that the uncertainties faced in recent months warn us about the changeability of the economic climate. As of now, the prospects for the current year look good and the moderate growth record may persist. But falling commodity prices are not an unmixed blessing, and failing a substantial boost to the growth rate, the multiple problems of mounting protectionism, debt burden and a fragile banking system may still lead to a recession in 1987. While the forecasts are worked out for six major regions of the South for 1986 and 1987, even the global projections highlight this delicate balance in which we are poised.

Chapter II follows up the global and regional forecasts by casting them in terms of 28 manufacturing sectors. Recent and projected (1986-1987) growth rates in MVA are illustrated by figures in each case. A short commentary provides the relevant institutional details bringing out sector-specific issues.

South-South co-operation was the theme of *Global Report 1985*. The present *Global Report* poses the

following stark question in chapter III: is the South deindustrializing the North?

A major impetus to the rising protectionist sentiment has been the notion in the North that industrial jobs have been "destroyed" by cheap imports from developing economies. In terms of the multilateralist and expansionist philosophy dominant in the three decades following the Second World War, a philosophy preached to the South in its early years of development by the North, this is a radical shift. It is necessary, therefore, to examine whether there is a rational basis for this shift. The present *Global Report* confronts the issue of whether "cheap" imports from the South are responsible for the loss of industrial jobs and output—deindustrialization—in the North. This frequently expressed idea has helped to strengthen the protectionist cause. In order to tackle this issue, a detailed input-output analysis of six developed market economies and their trade patterns is used to decompose the decline in industrial employment into its determinant factors. It is shown that in fact the North has been a net gainer from trade with the South. The bulk of the job loss is attributable to low growth rates and to technological change, and not to exports from the South.

While this may satisfy the curiosity of the dispassionate, it may yet turn out to be small comfort to those economies of the South faced with threats of trade barriers erected specifically against them. They may be forced to moderate their competitive zeal, turn inward, or direct the battle for markets towards other economies of the South. South-South competition, instead of South-South co-operation, may result from this new round of protectionism of the North.

Policy issues and options for the South are examined in chapter IV. Short-term problems facing the world economy, such as the debt burden of the South, protectionism and prospects for reflation in the North to achieve a higher growth plateau, are discussed, and a basic message of the *Global Report* is reiterated, namely that the exchange of views and international co-operation helps us all. Chapter IV also focuses on the long-term implications for industrialization in the South of rapid technological change in the North, a consequence of which may be that the South could find itself trapped in the wrong Industrial Revolution.

As in the previous *Global Report*, the statistical annex provides statistics at the 28-sector industrial level for 150 countries. The annex should continue to prove a valuable source of reference as it draws on the UNIDO data bank and the expertise of its individual departments.

I. World industrial economy: present situation and short-term regional projections, 1986 and 1987

The world economy is poised at a crucial juncture in its growth path. After years of uncertainty and stagnation, there appears to be a chance of recapturing at least some of the dynamic vitality which fuelled rapid growth in the 1960s and early 1970s. At the end of 1985, the high value of the dollar, anxiety about United States trade deficits and high real interest rates had becalmed the world economy. The South was facing increasing difficulties as a result of the debt burden, the stagnation of export markets, falling commodity prices and the mounting tide of protectionism in the North.

But from its inception, 1986 gave fresh potential to the economies of the North. The fall in the price of oil during the early months of 1986, after twelve years of high prices, promised a reversal of stagflationist trends in the North. The co-ordinated action on the part of the finance ministers of the five major developed market economies in September 1985 to effect a concerted fall in the parity of the overvalued dollar, particularly in relation to the yen, had also borne its fruit by then. Interest rates began to fall by early spring. Forecasts for growth rates of the OECD economies were continuously revised upwards and looked like exceeding, if only marginally, 3 per cent during 1986. There was promise that as the effects of the oil price fall fed through the economy, growth rates could be even higher in the North.

The prospects for the South remain uncertain however. To the extent that growth accelerates in the North, the South will benefit from higher exports. But the effects of a fall in the price of oil, while positive on the whole, will be unevenly distributed in the South as compared with the North. It has to be remembered that, while the experience of the previous oil shocks was wholly negative for the North, it was not so for the South. During the period 1974-1979, following the first oil price rise, the South was able to maintain its growth performance, whereas the North slowed down. The South benefited from the loans of recycled petrodollars at reasonable rates of interest.

It was only in 1980-1982, following the second oil price rise, that both North and South suffered a recession. But, as was argued in *Global Report 1985*, this was as much due to the restrictive monetary policy followed by the North as to the oil price rise. Thus, the positive effect of the fall in oil prices must be complemented by sensible and accommodating macro-economic policies in the North if it is not to be dissipated.

A. Basic assumptions for projections

Several key assumptions underlie the forecasts for the world economy presented in this chapter and in chapter II. It should be borne in mind, however, that policies and conditions may change, thus invalidating the projections of the scenario. It is therefore important to spell out these assumptions at the outset to allow readers to judge for themselves.

First, there will be no fiscal policy boost to achieve more rapid economic growth in 1986 and 1987. This reflects the general policy preference expressed for "smaller government" in major industrial countries, particularly in Western Europe. Thus, the stimulus which the South had hoped for as a result of faster expected growth in the North will be a very modest one. This could change considerably if Governments decided to take advantage of the oil price drop in order to institute reflationary policies; but the prospects for such policies are highly uncertain.

Second, the fall in the parity of the United States dollar is assumed to make no net change in the economic outlook for the South. The cheaper dollar will reduce the cost of servicing dollar-denominated debts that must be charged to the national budget in terms of the national currency. But suppliers in the South may find it difficult to hold their share of the United States market to the extent that the dollar has depreciated. The expected improvement in United States trade deficits may leave room for the United States to expand international lending to developing countries. However, such a prospect would also seem uncertain.

Third, if the price of crude oil exports is assumed to fall from an average of \$28 per barrel in 1985 to \$15 per barrel in 1986 and 1987, the South will lose about \$62 billion in export receipts from oil. The loss will be greatest for the oil producers in West Asia, about \$28 billion; Latin America would lose oil revenues of \$13 billion; South-East Asia, \$7 billion; North Africa, \$8 billion; and Tropical Africa, \$7 billion. It is assumed, however, that the losses (gains) in oil revenues affect the level of private and public expenditures differently from country to country.

The deflationary impact of lower oil prices will be greatest on the South, which accounted for 72 per cent of world exports of crude oil in 1984; the remaining 28 per cent of world exports was shared by the Union of Soviet Socialist Republics (25 per cent), Norway and the United Kingdom of Great Britain and

Box: The impact of falling oil prices and interest rates on world economic growth

The immediate outlook for the world economy seems to be improving and growth forecasts have generally been revised upwards. The original UNIDO projection made at the end of 1985 (see figure 1.1) was that there will be almost no improvement in 1986 over 1985. Oil prices were expected to fall slightly and co-ordinated policy measures by the group of five major developed market economies to reduce dollar exchange rates and long-term interest rates had been introduced, but the impact in the projection was minor. Growth for the North was forecast to be 2.9 per cent in 1986 after 2.8 per cent in 1985, mainly because of the better outlook for the United States and Western Europe. Only Japan was forecast to face difficulties in 1986, dropping from 4.7 per cent in 1985 to 3.2 per cent in 1986. For 1987 UNIDO expected the overdue recession in the United States to take place—the current recovery had already lasted longer than previous recoveries—with growth falling from 3.0 per cent in 1986 to 2.2 per cent in 1987. Since Japan was expected to recover again (4.3 per cent), the North, as a whole, would grow by 3.1 per cent in 1987.

The original UNIDO forecast for the South showed a pattern similar to that of the North, but with big differences in regional prospects.

The situation has now changed, and since oil prices have suddenly dropped to around \$15 per barrel, UNIDO has revised its forecasts for 1986 and 1987 on this basis. UNIDO has estimated the impact of this change on growth of gross domestic product (GDP) by taking into account the effects on inflation, domestic consumption and international trade linkages.

The result is that the estimated \$54 billion savings on the import bill in developed countries will stimulate GDP growth by only an extra 0.2 per cent, moving the original UNIDO forecast for 1986 from 2.9 to 3.1 per cent. This increase is due to the expansion of domestic consumption generated mainly by increased disposable income and lower inflation. Net exports will also increase, but the immediate effect of this on GDP growth is negligible.

Thus, UNIDO expects that the "windfall gains" from lower oil prices alone will not immediately provide a significant stimulus to the economies of the North. Adjustment and multiplier processes normally take some time to turn financial effects into real economic effects. Thus, in a year's time the effect might already be stronger if developed countries make use of the improved conditions—lower inflation and lower interest rates—

to reflate their economies. In this case, UNIDO expects that the downturn in the United States in 1987 will not be as serious as originally assumed. The North as a whole will grow by about 3.0 per cent.

For developing countries the effect is mixed. The oil revenue of oil-exporting countries will drop by \$62 billion and UNIDO expects GDP growth to fall by 0.8 per cent in 1986. However, lower interest

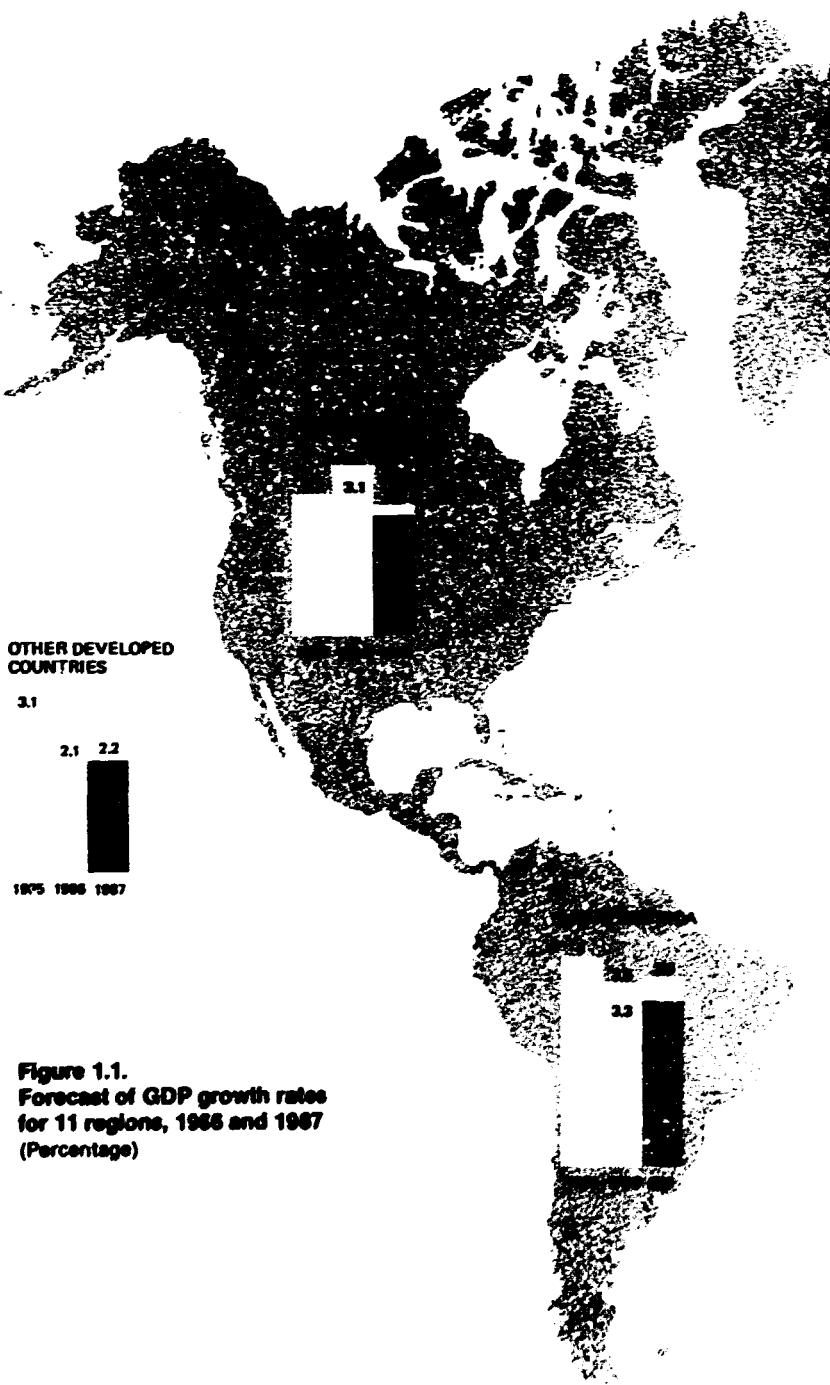


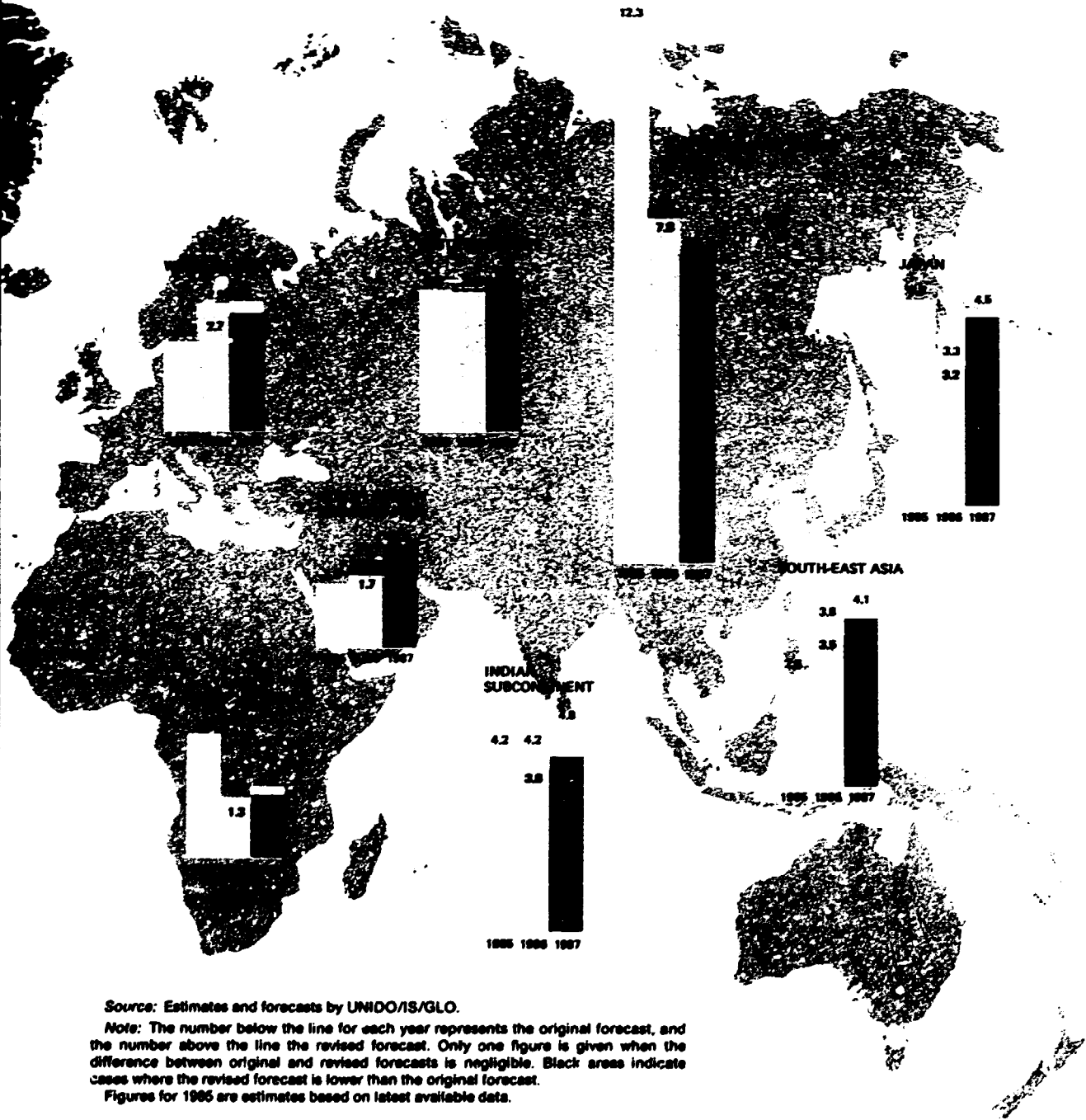
Figure 1.1.
Forecast of GDP growth rates
for 11 regions, 1986 and 1987
(Percentage)

rates will have a positive effect for some of the oil-exporting countries. In Mexico, for instance, around half of the oil revenue loss will be compensated for by reduced interest payments. For oil exporters as a whole, lower interest rates are expected to save an estimated \$3 billion on the current account and to increase GDP growth by 0.3 per cent.

Oil-importing developing countries are expected to save approxi-

mately \$19 billion because of lower oil prices. Increased domestic consumption will improve GDP growth by 0.4 per cent. Trade with oil exporters will suffer, while trade with countries benefiting from lower oil prices will increase. UNIDO has calculated that the net effect on exports for oil-importing developing countries will be slightly positive, but will make only a marginal contribution to GDP growth.

The drop in interest rates is expected to add another 0.3 per cent to GDP growth, thus changing the UNIDO forecast for oil-importing developing countries for 1986 from 3.9 per cent to 4.6 per cent. Given the improved forecast for the North, if these countries are able to redirect their exports to markets of expanding developing economies, the same level of growth seems to be sustainable in 1987.



Northern Ireland (10.5 per cent), Canada (2.0 per cent), China (2.0 per cent) and other countries (1.0 per cent).

Fourth, the cost of servicing the South's external debts will continue to constrain economic growth in many developing countries, though lower interest rates will somewhat mitigate the debt service burden. To calculate the impact of the lower level of interest rates prevailing in 1986, it is assumed that the level of interest payments on external debts will drop by 20 per cent below the level estimated by the World Bank.

Fifth, the urgently needed increase in the flow of external financing to the South is unlikely to materialize in 1986 and 1987, and financial flows will therefore be no higher than they were in 1984. The growth and debt relief measures proposed in the Baker Plan, if implemented, could start reviving loans by commercial banks to selected developing countries. But there appears no immediate prospect that financing will regain much of the \$20 billion fall that took place between 1981 and 1984.

Sixth, the price of commodities other than crude oil will remain at the depressed level prevailing at the end of 1985. An unusual feature of the world economic recovery in 1983 and 1984 has been the weakness of commodity prices. OECD countries, which purchase 65 per cent of commodities entering world trade, are not expected to grow faster in 1986 and 1987 than in the recovery years. The outlook is therefore for a steady but small increase in the volume of exports of commodities and, because of abundant supplies, no increase in the level of commodity prices.

Seventh, the South's exports of manufactured goods to the North will continue to grow, perhaps by as much as 10 per cent in both 1986 and 1987. In 1984, when world trade in manufactures increased by 8.5 per cent (measured in dollars), developing countries increased their exports by 15 per cent and developed countries by 7 per cent. The depreciation of the dollar will make it more difficult to continue the rapid expansion of manufactures exported to the United States. Nevertheless, no overall increase in the level of protection in the North against manufactured exports

from the South is expected in 1986 and 1987, because of the easing of the problem of the United States trade deficit following the exchange rate realignment.

B. The North

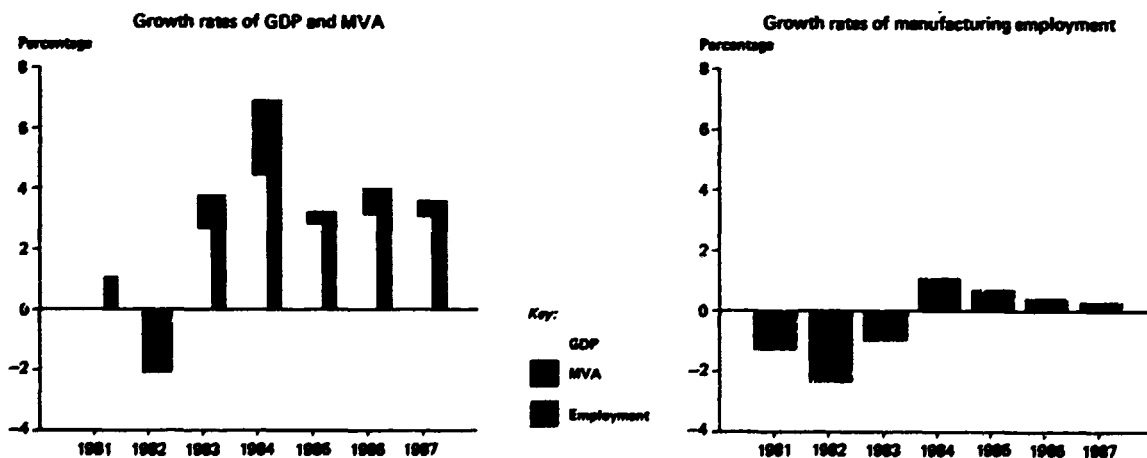
The rapid growth of markets in the North is an important condition for faster economic growth in the South. Recent developments such as the oil price plunge, the depreciation of the dollar and falling interest rates have aroused some hope in the North amid a downward phase of cyclical movement since the 1984 peak. Do these events signal a return to healthy growth in the North? Is a new period beginning in which exports from the South to the North will increase sufficiently to ease debt burdens and to revive industrialization in the South? Will policy makers in the North undertake the needed investments and industrial restructuring? In short, to what extent will the shifts in oil price, the depreciation of the dollar and the fall in interest rates create a better environment for industry in the South?

UNIDO projections show that the North as a whole is expected to have a growth of 3.1 per cent in GDP for 1986, an improvement over the 2.8 per cent achieved in 1985. The improvement reflects some positive effects from the change in the oil price, as well as in exchange and interest rates. For 1987, however, a GDP growth rate of 3.0 per cent is envisaged. The net positive effect of a lower oil price for the North, as a whole, is calculated to add only about 0.2 per cent in 1987. Growth rates of 4.0 per cent and 3.6 per cent are expected for MVA, and 0.4 and 0.3 per cent for manufacturing employment, in 1986 and 1987 respectively (see figure 1.2).

1. North America

Since North America imports half of the North's imports of manufactured goods from the South, a buoyant market in 1986 and 1987 is of critical

Figure 1.2. Growth rates of GDP, MVA and manufacturing employment: the North, 1981-1987



Sources: United Nations National Accounts Statistics, United Nations Industrial Statistics and estimates and forecasts by UNIDO/IS/GLO.

importance to the South. The pace of economic growth in the United States became slower and more hesitant in 1985, but picked up again in the first half of 1986. The fall in oil prices is expected to increase real disposable incomes in the second half of 1986, postponing the cyclical downturn expected in 1986 to 1987. The improved trade balance will boost demand for industrial goods, but any reduction in the budget deficit will be deflationary.

The United States faces several major economic problems [9], the most prominent of which are the following: a huge budget deficit which may reach \$200 billion in 1986, a trade deficit which hit \$149 billion in 1985 and threatened to increase further in 1986, and declining labour productivity, particularly since the beginning of the last decade. The low oil price along with yen revaluation and somewhat lower interest rates would seem however to have brought a breathing-space while urgent efforts were being made to find effective solutions.

Under these circumstances, it is reasonable to expect that the United States economy will grow at 3.1 per cent in 1986. The uncertainties surrounding the dollar, budget-cutting exercises aimed at eliminating the budget deficit by 1990 and the revision of tax laws make it difficult to forecast a higher growth rate. But in contrast to the fears of recession expressed in mid-1985, a moderate growth would now seem the best forecast. Continuing moderate growth will not be self-sustaining, however, since the impact of budget-cutting is expected to be felt more severely in 1987 than in 1986, and investment plans will be revised downwards. In 1987 the United States economy is expected to slow down to about 2.5 per cent. Growth forecasts for North America (see figure 1.3) follow predominantly the United States growth forecasts, with Canada expected to grow at 3.8 per cent in 1986 and 3.4 per cent in 1987.

With regard to MVA growth, it can be seen that North America is expected to show a marked slowdown from 3.9 per cent in 1986 to 2.2 per cent in 1987. Manufacturing employment growth follows a similar pattern: 0.6 per cent in 1986 and -0.2 per cent in

1987. Sales of consumer durables, particularly automobile and construction materials for housing, are expected to support MVA growth in 1986, reflecting low interest rates. But the forces of the downward cyclical phase would soon set in to counteract such consumer demand for manufactured goods. Consumer debts (for example, credit card purchases) already seem high, and household savings are at an all-time low, dampening the prospect of robust consumer demand on a sustained basis.

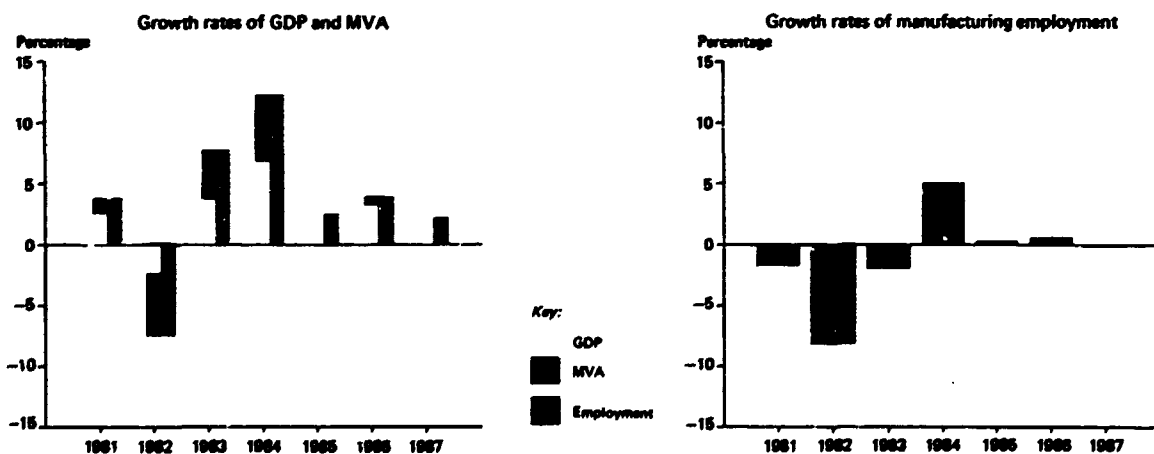
The prospects for the United States trade balance have improved somewhat as a result of the exchange rate realignment. However, the fall of the dollar against the Japanese yen may not bring as much improvement as expected. In 1986 the United States bilateral trade deficits with Japan could even worsen, because it takes time for United States buyers to change supply sources when Japanese products become relatively more expensive. Japanese export producers, however, are determined to maintain their share of the United States market by absorbing the exchange rate impact and by further cost reduction measures. Moreover, Japan imports inputs from the United States for export production. Thus, when exports decline, Japan's imports from the United States also tend to decline, leaving only a limited possibility of improvement on the bilateral trade position.

Nevertheless, Japan's rising share of the United States market for manufactured goods could begin to stabilize as a result of adjustments brought about by the new exchange rate. At the same time, manufactured goods from some developing countries would increase their share of the United States market since their currencies are tied to the dollar.

2. Western Europe

The slow pace of economic growth expected in Western Europe in 1986 and 1987 remains a major disappointment for the South, particularly Tropical Africa and North Africa and West Asia, major suppliers of commodities to the region. Concern about

Figure 1.3. Growth rates of GDP, MVA and manufacturing employment: North America, 1981-1987



Sources: United Nations National Accounts Statistics, United Nations Industrial Statistics and estimates and forecasts by UNIDO/IS/GLO.

inflation and budget deficits is expected to override the view that more expansionary policies are needed to reduce the high level of unemployment. The fall in oil prices and interest rates provides more room for policy manoeuvres, but UNIDO forecasts of economic growth will still show weak demand for imported commodities and a high level of unemployment as a major social problem.

This region stands to gain most in absolute terms from the low oil prices compared with North America and Japan. UNIDO calculations show that Western Europe's savings on oil imports could amount to over \$28 billion in 1986 compared with \$16 billion for Japan and \$15 billion for North America. Partly because of the oil windfall and lower interest rates, reflationary prospects would appear somewhat improved. The region is expected to record a GDP growth rate of 3.0 per cent in 1986, an improvement over 2.1 per cent in the previous year. In 1987, the growth rate is likely to remain at 3.0 per cent, and the corresponding MVA growth rates are expected to be 3.8 per cent in 1986 and 3.4 per cent in 1987 (see figure 1.4).

The Federal Republic of Germany would appear as the major gainer in the region, with a GDP growth rate of 3.4 per cent in 1986 and 3.5 per cent in 1987. Next comes France, with an expected GDP growth of 2.8 per cent in 1986 and 3.1 per cent in 1987. But the United Kingdom, with GDP growth rates of 2.3 per cent and 1.2 per cent in 1986 and 1987, respectively, is expected to pull down the regional average.

In spite of improved room for policy manoeuvres, there remain deep-seated obstacles to stronger growth, including high labour costs, lagging progress in the development of high technology compared with North America or Japan, and lingering fear of inflation ([10], [11]). These belong to long-term structural problems of the region, and the oil price change alone, while possibly serving as a temporary relief to low profits, cannot be relied upon to solve them.

External conditions do not allow any optimism for Western Europe. The cheaper dollar implies that exports from Western Europe will be discouraged and its imports encouraged. The effect of budget-cutting

exercises in other regions would mean reduced Western European exports to them. Membership of Spain and Portugal in the European Economic Community has led to agricultural trade disputes between the United States and the Community, with the threat of a possible trade war. Cheaper oil prices would tend to reduce demand for Western European goods in North Africa and West Asia and the centrally planned economies of Eastern Europe, which are sizeable customers of the region.

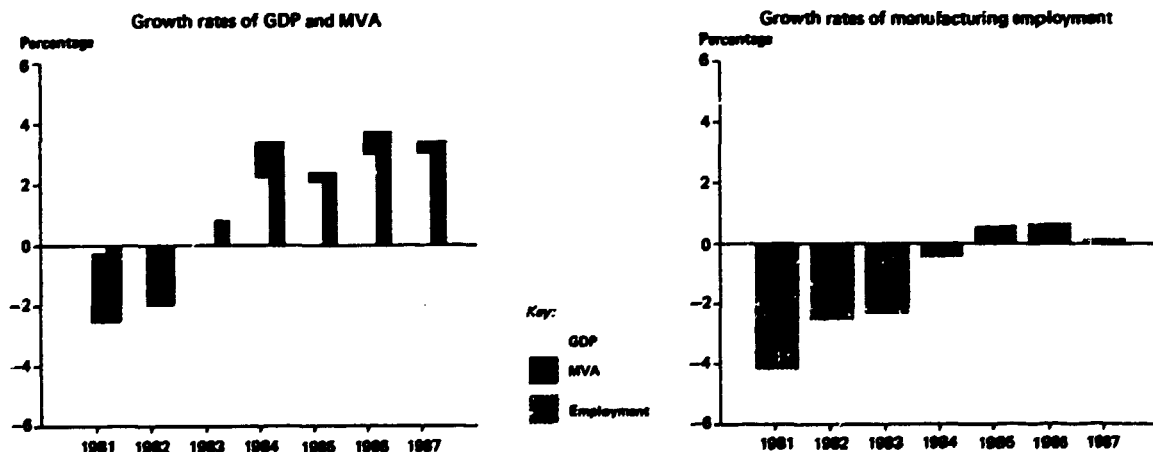
Faced with these international uncertainties, Governments in the region have disavowed any claim to a locomotive role in the world economy. The policy makers could be right in suspecting that their economies, even collectively, are not big enough for the role, even if the weight of existing government debt could be disregarded. Their strategy is that the market will somehow move along a low-growth path, with low inflation as both a consequence and a reward. Little sign of change is discernible nor expected in this policy stance in 1986 and 1987.

3. Japan

Although the market size of Japan for goods from the South is only smaller than that of the United States and Western Europe, developing countries, as a whole, have been providing 60 per cent of Japan's total imports. Japan has been a dynamic market for suppliers in developing countries of South-East Asia and West Asia (the Gulf countries), but it is now faced with the urgent need for fundamental restructuring of its economy. The structural shift from export-led growth to domestic-oriented growth, as imposed upon Japan by the dollar-yen realignment, may lead to a phase of slow-down in growth.

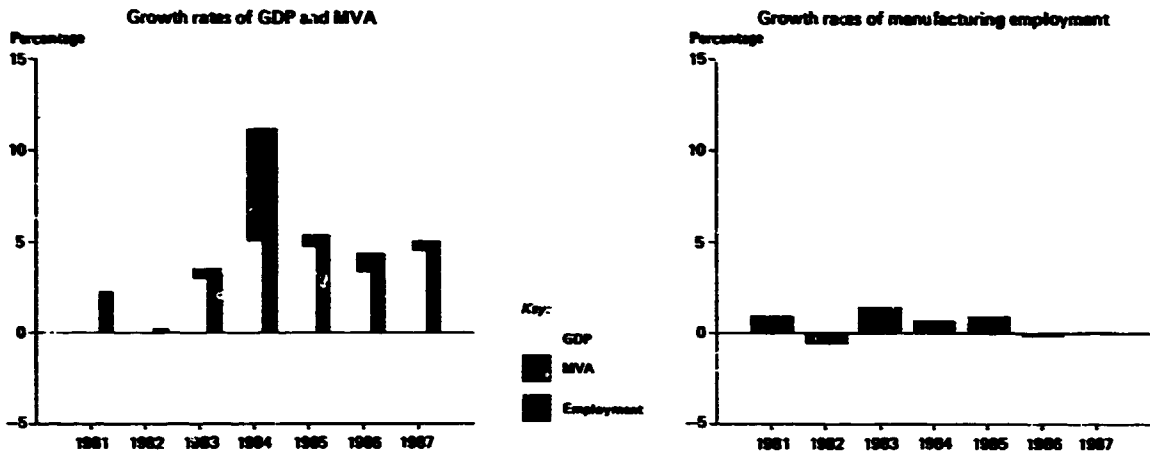
The short-run prospects do not seem too encouraging because of the enormous task of structural transformation required, though the timing looks propitious for Japan to begin initial steps, particularly because of recent drops in oil prices. UNIDO projections indicate that Japan's GDP will grow at 3.3 per cent in 1986 and 4.5 per cent in 1987, as compared

Figure 1.4. Growth rates of GDP, MVA and manufacturing employment: Western Europe, 1981-1987



Sources: United Nations National Accounts Statistics, United Nations Industrial Statistics and estimates and forecasts by UNIDO/IS/GLO.

Figure 1.5. Growth rates of GDP, MVA and manufacturing employment: Japan, 1981-1987



Sources: United Nations National Accounts Statistics, United Nations Industrial Statistics and estimates and forecasts by UNIDO/IS/GLO.

with 4.7 per cent achieved in 1985. This implies that Japan's MVA will grow at 4.4 per cent in 1986 and 5.1 per cent in 1987 (see figure 1.5).

The appreciation of the yen will reduce profitability to zero on a number of manufactured products, such as household electrical equipment, duplicating and telephone equipment, agricultural and construction machinery, steel products, bicycles, chemical fibres and tyres. Resistance by its major trading partners, especially the United States, to increased Japanese exports will lead to a fall in export growth, some of it self-imposed and some caused by the higher yen.

These projections represent a "mediocre" performance compared with what Japan achieved during the 1950-1980 period. Ordinarily, such a steep revaluation of a currency as that recently experienced by the Japanese yen could easily spell negative growth for other countries. The projection figures for Japan reflect its unusual ability to adjust to external stimuli [12] and the special favourable circumstances in the oil market. Japan imports 99 per cent of its oil consumption and the yen price of oil and raw materials could fall substantially to absorb the profit squeeze in export production. It should be kept in mind, however, that the projections are based on the assumption that the exchange rate stabilizes at around 180 yen per dollar. A further fall of the dollar cannot be ruled out.

The task of transforming the export-oriented industrial structure into one oriented towards domestic demand requires an adequate source of demand within the economy itself. To meet this requirement, the Government has announced a series of measures based on the Maekawa Commission Report, but the question arises as to whether, and how soon, the measures collectively would create sufficient aggregate demand to offset the deflationary consequences of the appreciation of the yen.

The measures include the following proposals: the encouragement of urban and housing development (through utility rate rebates, land tax reduction, easing of zoning rules for construction etc.); the promotion of household consumption (including income tax reduction and shorter working hours without pay cuts

combined with subsidies to leisure industry development); the expansion of social infrastructure, such as school buildings and transport systems in local communities; and subsidies to small-scale enterprises, especially those hurt by the high yen. Conspicuously lacking in the list is an increase in government expenditures. The commitment to fiscal austerity does not seem to have changed, although the announcement of a lower interest rate implies a somewhat easier monetary policy.

Thus, the incentive characteristics of the policy package suggest that the pulling effect of domestic demand would come only slowly. Changes in household consumption, for instance, take some time to effect an appreciable impact on the economy, particularly in such decisions as buying or building a house. It is, therefore, judged that the policy impact expected in 1986 will be smaller than in 1987, and that the Government projection of 4 per cent GDP growth in 1986 would seem too optimistic under the circumstances.

4. Eastern Europe and the USSR

Although Eastern Europe and the Union of Soviet Socialist Republics have not traditionally been a very big market for goods supplied by the South, the share of developing countries in the region's imports has gained more rapidly than that of developed countries in recent years [13]. This is a part of the general trend in the region to let international trade play a greater role in its industrial growth. Import-intensity has increased in several branches of industry as a result of domestic industrial restructuring that has required imports of intermediate and capital goods and new technology from outside the region. This tendency is expected to continue, although the oil price drop might somewhat reduce the region's imports in the immediate future, an important factor in its growth prospects.

According to UNIDO projections, the region will maintain a steady growth rate of net material product at 3.2 per cent in 1986 and 3.4 per cent in 1987. The corresponding MVA growth rates are expected to be

4.6 per cent and 4.7 per cent, respectively. In 1985, the region achieved a 3.2 per cent growth rate of net material product, though the target was 4.4 per cent (see figure 1.6).

Factors supporting the regional forecast for 1986 include the expectation of a lower level of high-technology imports into the USSR following the fall in world oil prices. Energy exports account for approximately 80 per cent of USSR hard currency earnings, and the Economic Commission for Europe estimates that USSR convertible currency earnings could fall by 17-22 per cent in 1986. The impact on that country could be made more severe by the possible disruption of food production in the Ukraine and the need to use more foreign exchange to increase food imports. For Eastern Europe, the import restrictions imposed by Western European countries in May 1986 and possible consumer reaction to such imports after the easing of restrictions will mean lower foreign exchange earnings from food exports to those countries and therefore less foreign exchange available for high-technology imports.

The growth in the debt burden of the Eastern European countries and the USSR must be taken into account. In 1985, the region's net debt stood at \$72 billion. Having been hurt by a rising dollar in the past, the countries of the region as a whole have tended to increase the share of their debt denominated in currencies other than the dollar, a policy decision which has contributed to the increase in the level of debt. Western lenders also appear to have become more cautious in their regional risk appraisal and more reluctant to extend new credit to Eastern Europe as a result, in particular, of the falling oil price.

For 1986, however, the official plan targets call for an increase in the region's growth by 1.1 per cent over the 1985 performance, a figure which would exceed the 1981-1985 average results. Within the region every country except the German Democratic Republic plans to improve its growth performance in 1986 over the level of 1985, with the south-eastern European countries (Bulgaria, Hungary and Romania) all aiming at more than double their 1985 growth in 1986 (see table 1.1).

Table 1.1. Annual average growth rates of net material product: Eastern Europe and the USSR, 1981-1986

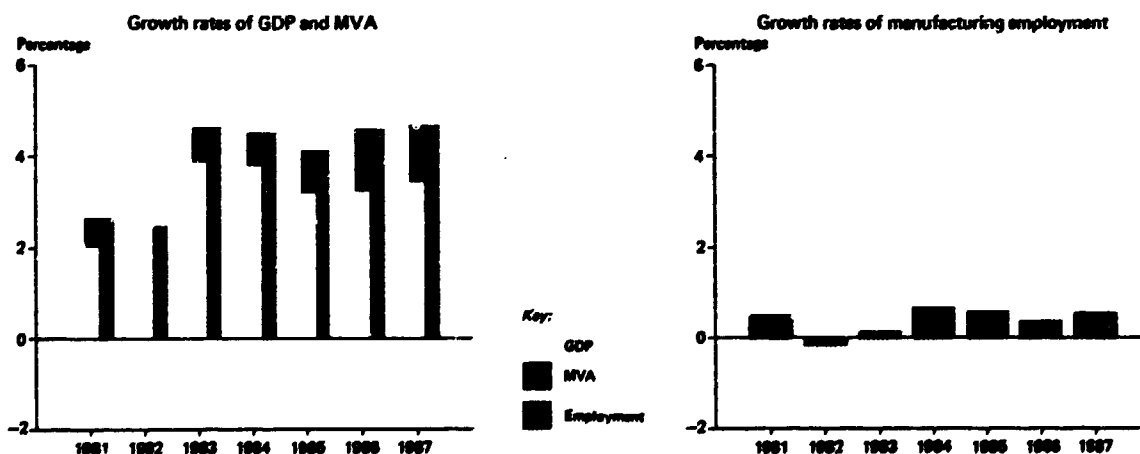
(Percentage change at constant prices)

Country	Average growth rates					Planned 1986
	Actual					
	1981	1982	1983	1984	1985	
Bulgaria	5.0	4.2	3.0	4.6	1.8	4.0
Czechoslovakia	-0.1	0.2	2.3	3.5	3.3	3.5 ^a
German Democratic Republic	4.8	2.6	4.6	5.5	4.8	4.4
Hungary	2.5	2.6	0.3	2.5	-1.0	2.3-2.7
Poland	-12.0	-5.5	6.0	5.6	3.0	3.2-3.5
Romania	2.1	2.8	3.8	7.7	5.9	12.0
Subtotal	-1.2	0.5	3.9	5.4	3.7	5.1
USSR	3.3	3.9	4.2	3.2	3.0	4.0
Total	2.0	2.9	4.1	3.8	3.2	4.3

Sources: Economic Commission for Europe, Vienna Institute for Comparative International Studies and UNIDO/IS/GLO estimates.

^aGrowth rate of gross material product rather than net material product (NMP).

Figure 1.6. Growth rates of GDP, MVA and manufacturing employment: Eastern Europe and the USSR, 1981-1987



Sources: United Nations National Accounts Statistics, United Nations Industrial Statistics and estimates and forecasts by UNIDO/IS/GLO.

One standard justification for the expectation of higher growth in the region as a whole is the increased emphasis on efficiency in the individual countries. But increased growth in the region in 1986 cannot occur without increased labour productivity and efficiency in the internal market. This in turn has very direct implications for policies on investment and the introduction of new technology. Official statements (particularly those of the USSR) also emphasize the positive effect on growth of efforts to achieve greater economic co-operation among members of the Council for Mutual Economic Assistance (CMEA).

C. Structural change and high technology in the industry of the North

The low growth forecasts, in particular those for 1987, could imply many policy problems. One such problem of special interest to UNIDO concerns how industrial structure will be affected by the low-growth projection. In order to illustrate the structural problems arising from that linkage, the MVA forecasts have been translated into sectoral growth for each region. Figure 1.7 shows the result, with the corresponding country-level figures presented in the statistical annex.

Several features are observable for each region. Leading growth sectors in North America comprise plastic products (ISIC 356), chemicals (ISIC 351 and 352) and machinery (ISIC 382 and 383), in that order. For Western Europe, growth leaders are plastic products (ISIC 356), electrical machinery (ISIC 383), chemicals (ISIC 351 and 352) and petroleum refining and related products (ISIC 353 and 354). While North America and Western Europe would appear similar, the structural change looks different in Japan, where electrical machinery (ISIC 383) overwhelms all other major groups, even that of transport equipment (ISIC 384). The short-term forecasts thus indicate that the differences in the nature and pace of structural change among these regions will sharpen.

This development would seem fraught with new conflicts. In the past, trade issues centred around the problem of too rapid penetration by some countries into the markets for selected manufactured items, such as television sets, clothing and automobiles. The speed of growth of the electronics sector in Japan may sooner or later usher in another round of product-specific trade issues. Western Europe has already

erected import barriers against Japanese electronics products such as videotape recorders.

Structural change in Japan has its origin in the country's poor natural resource endowment and its resource-saving strategies, together with an industrial organization designed to accommodate them. Miniaturization, shifts towards a product mix using less imported resources and also toward information-intensive products as a means of maximizing value added, and "just-in-time" input inventory management also lie behind the drive for structural change and greater efficiency in Japan [14], with electronics playing a role of primary importance.

The prominence of the Japanese electronics industry has been propelled by commercialization of high-technology science and supporting investment. Less well-known is the fact that high technology has also been spreading in other industrial sectors as well, facilitating structural change in the economy.

Table 1.2 shows clearly the spread of high-technology inputs throughout the industrial structure of Japan. It also shows how the growth of high-technology investment spurs overall growth of investment and output. Overall high-technology capital outlays accounted for 22.4 per cent of total plant and equipment spending planned by all industries for fiscal year 1984 (April 1984—March 1985). This represents a 31.3 per cent growth in high-technology spending over the previous year, and high technology contributed 56.2 per cent to the overall growth of investment. It is also impressive that there was not much dispersion in the share of high-technology spending between sectors. The lowest share (non-manufacturing industries) was 16.5 per cent, and the highest (processing and assembly industries) 39.9 per cent. Thus, high-technology inputs were permeating the entire industrial structure through investment decisions.

Investment in high-technology inputs is a defensive strategy for industries which are stagnating or beginning to slow down. Thus, the materials industries which grew slowly during 1980-1984 invested 25.1 per cent of their total capital outlay in high technology. But for rapidly growing industries such as the processing and assembly industries, high-technology investment also plays a stimulating role. For industries such as electrical and non-electrical machinery and precision instruments, high technology is both an input and an output, so a rapid growth of high-technology capital outlays also contributes to the growth of their markets.

Table 1.2. Trends in high-technology capital outlays: Japan, 1984

(Percentages)

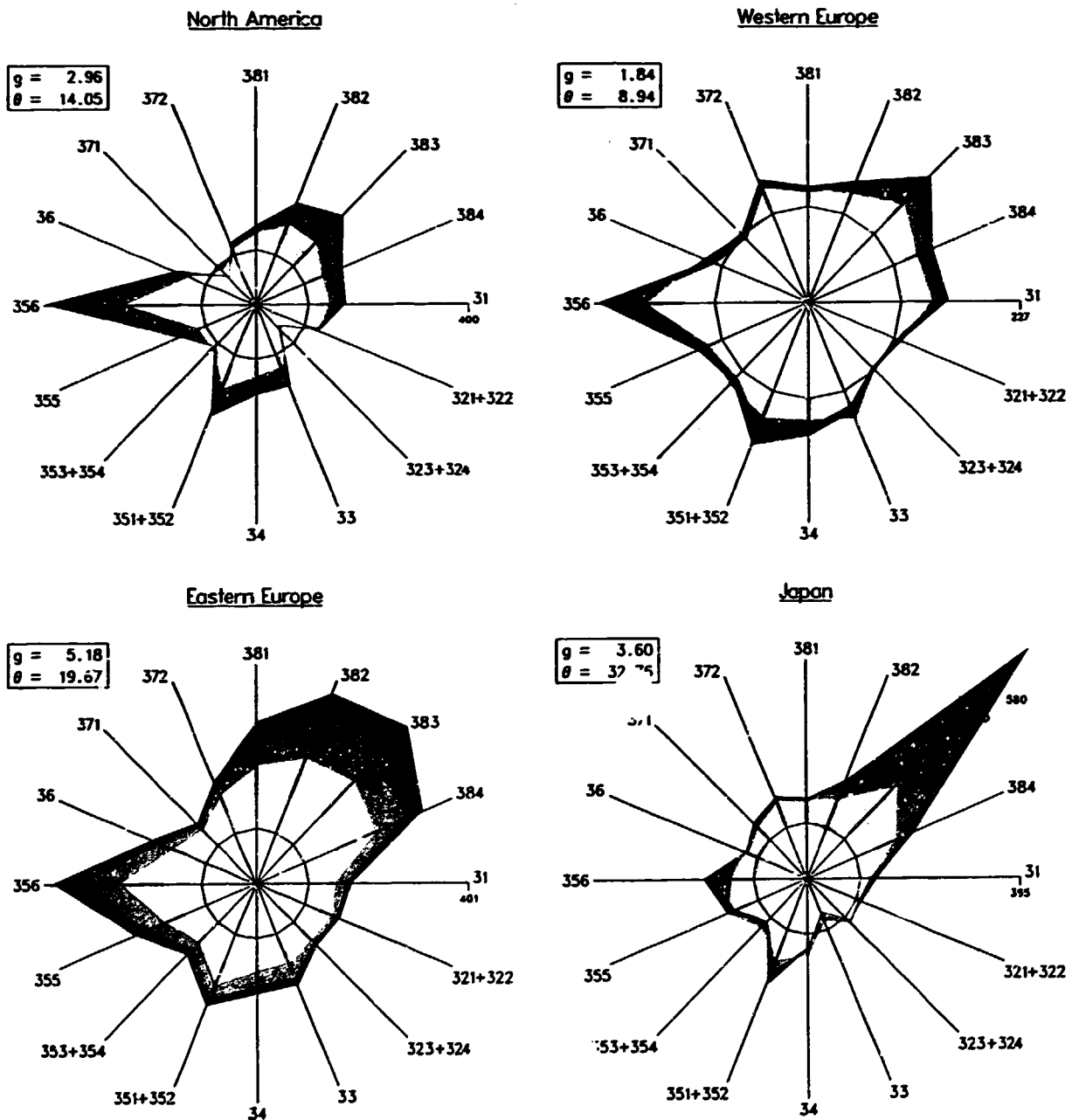
Industry	Growth rate of overall capital investment	Growth rate of high-technology outlays	Share of high-technology capital outlays in total investment	Contribution of high-technology growth to overall capital investment
All industries	10.5	31.3	22.4	56.2
Materials industries ^a	8.2	35.5	18.2	63.2
Materials industries (excluding steel)	23.5	34.7	25.1	34.0
Processing and assembly industries ^b	25.1	50.6	39.9	66.8
Non-manufacturing industry	10.9	13.5	16.5	37.3

Source: Questionnaire survey by the Japan Development Bank (August 1984).

^aTextiles, paper and pulp, chemicals, non-metallic mineral products, steel and non-ferrous metals.

^bFood, non-electrical machinery, electrical machinery, transport equipment and precision instruments.

Figure 1.7. Industrial structural change: North America, Western Europe, Eastern Europe and Japan, 1970-1987



Key:

ISIC code (branches):

- 31 (Food products)
- 321, 322 (Textiles)
- 323, 324 (Leather industries)
- 33 (Wood and furniture)
- 34 (Paper and printing)
- 351, 352 (Chemicals)
- 353, 354 (Petroleum and coal)
- 355 (Rubber products)

- 356 (Plastic products)
- 36 (Non-metal mineral products)
- 371 (Iron and steel)
- 372 (Non-ferrous metals)
- 381 (Metal products)
- 382 (Non-electrical machinery)
- 383 (Electrical machinery)
- 384 (Transport equipment)

Constant prices of 1980

- g Average annual growth rate, 1970-1987 (percentage)
- θ Index of structural change, 1970-1987
- 1985-1987 forecast
- 1980-1985
- 1975-1980
- 1970-1975

Sources: United Nations Industrial Statistics, estimates and forecasts by UNIDO/IS/GLO.

In the United States, as in Japan, the high-technology sector has been the leading force for growth and restructuring in the manufacturing industry. The Federal Reserve Board in its recently revised index of industrial production defined high technology as office and computing machines, copiers and related equipment, electronics, communications, electronics components and medical instruments [15]. According to this definition, high-technology products increased their weight in the overall index from 6.1 per cent in 1977 to 12.9 per cent in 1984, thus accounting for most of the growth in the 1977-1984 period. The average annual growth rate in high-technology products was 14 per cent during 1977-1984, or nearly five times the overall average. Of these, office and computing machines grew at 22 per cent per annum in this period.

By contrast, other products have declined in importance. Industries with low growth rates were farm equipment, construction and mining equipment, railroad equipment, commercial shipbuilding and primary metals. These "low-performing durables" saw their weight decline from 8.0 per cent in 1977 to 4.7 per cent in 1984. For this set of industries, the second oil shock was a massive one, and their output has declined by 40 per cent since 1979.

A third group consists of those industries which were slowly growing or declining. This group includes metal mining, primary metals, leather and leather products and gas utilities. Slow growth implies lack of qualitative change and rising prices. Thus, the producer price index for manufacturing capital goods increased by 63 per cent, in contrast to the 20 per cent decline in the price of office and computing machines.

Looking at the industrial structure from the purchasers' rather than the producers' point of view, the *Federal Reserve Bulletin* index classifies products by market aggregates. Business equipment grew faster than consumer goods over the 1977-1984 period, and defence and space equipment overtook consumer goods in 1980 and business equipment in 1982. This index showed the maximum rise to a level above 160 by 1984 (1977 = 100). Thus, the annual growth rate of consumer goods averaged 2.4 per cent, business equipment 4.4 per cent and defence and space equipment 6.7 per cent for 1977-1984.

This structural shift required heavy investment. As table 1.3 shows, the average gross fixed capital formation in both the United States and Japan exceeded 4.0 per cent per annum during the period 1978-1986, four times the European rate of 1.0 per cent. In Western Europe, investment has been for rationalization and for reducing overmanning rather than for capacity expansion. In Japan it is for capacity expansion, and in the United States the growing demand for private sector services is the major factor.

By contrast, the European developed market economies have lagged behind. The data on industrial restructuring in Europe are scanty compared with the United States and Japan. Nevertheless, the data on the trade balance in high-technology products between Japan, the United States and the European members of OECD demonstrate the extent to which Europe lags behind Japan and the United States in the high-technology area.*

*There are some signs that European manufacturing has been recently adopting micro-electronics in the production process. See, for instance, *Microelectronics in Industry: an International Comparison* published by the Anglo-German Foundation, Berlin, 1985.

Box: Micro-electronics in the clothing industry: a threat to the South?*

Traditionally, production of clothing has been relatively labour-intensive. This has given developing countries a comparative advantage in many branches of the world clothing industry. Much of the production takes place in developing countries, either by complete-garment factories or by production-sharing plants where the more labour-intensive processes of clothing manufacture are performed.

In 1981, the clothing exports of the third world market economies were worth nearly \$17 billion and accounted for 41 per cent of the world total.

The serious question which arises is whether the application of micro-electronics in the industry might erode the advantage enjoyed by developing countries with large supplies of skilled and semi-skilled

labour. The series of repetitive, discrete tasks that characterizes garment production is precisely the type of activity that is most amenable to conversion to automated operations.

For several reasons, the rate of automation in the industry was, until recently, quite slow. The industry is fragmented and short of investment capital, skilled labour is able to respond rapidly to style changes, and the automated handling of cloth has presented technical difficulties. Now, however, advanced micro-electronically controlled equipment is being adopted by the industry.

The application of micro-electronics to garment production raises the distinct possibility that comparative advantage will shift back to developed countries and result in a reordering of the world

clothing industry in a manner that will cause severe disruptions and hardship to developing countries, which have relied heavily on clothing exports for generating employment and earning foreign exchange.

Thus far, micro-electronics has had little effect on clothing trading patterns, since the innovations just described tend to be very costly to install and affect only a small proportion of value added. But, as micro-electronic devices become cheaper and technological advances allow application to a wider variety of tasks, we can expect the pace of automation to pick up. Firms which lag—wherever they are—will be put under increasing pressure to adopt the new technology because of competition from enterprises that are using it.

*Slightly modified extract from F. Blanchard, "Technology, work and society: some pointers from ILO research", *International Labour Review*, vol. 123, No. 3 (May-June 1984).

Table 1.3. Major economic indicators in OECD countries, 1978-1986

(Percentage changes)

Item	1978	1979	1980	1981	1982	1983	1984	1985 ^a	1986 ^a	1978-1986 (average)
Japan										
Gross fixed capital formation	9.4	6.3	1.1	3.6	1.9	0.7	5.7	6.25	4.50	4.2
Industrial production	6.4	7.3	4.7	1.0	0.3	3.5	11.1	6.50	5.25	5.2
Gross national product	5.1	5.2	4.8	4.0	3.3	3.4	5.8	5.25	4.50	4.6
European members of OECD										
Gross fixed capital formation	1.4	3.3	1.9	-3.3	-1.6	0.2	1.9	2.00	3.00	1.0
Industrial production	1.7	3.7	-0.8	-2.2	-1.4	1.0	3.4	3.50	3.25	1.4
Gross national product	3.1	3.4	1.3	-0.1	0.7	1.4	2.4	2.25	2.25	1.9
United States										
Gross fixed capital formation	9.8	3.8	-7.1	3.1	-6.8	9.7	18.0	6.25	4.00	4.6
Industrial production	5.8	4.3	-3.6	2.6	-8.1	6.5	10.7	2.50	3.75	2.9
Gross national product	5.0	2.8	-0.3	2.5	-2.1	3.7	6.8	3.25	2.75	2.8

Source: Organisation for Economic Co-operation and Development, *Economic Outlook 1985* (Paris, 1985), table 11, p. 25.

^aForecast.

Japan has been steadily improving its trade balance in high technology, from about 0.4 per cent of GDP in 1962 to approximately 3.5 per cent in 1984. The United States has broadly maintained its trade balance in high-technology goods at about 0.5 per cent of GDP for the period 1962-1984, though there are fluctuations around that figure. For European members of OECD, the trade balance has been deteriorating steadily over the period and is now at zero per cent.

The United States and Japan have thus made the fastest progress in industrial restructuring, but it has required a large amount of investment. United States investment demand and the public deficit were financed by drawing down United States international capital outflows. There was a sharp drop in lending abroad by United States banks, and this affected debtor developing countries, especially in Latin America.

There was increased funding abroad by United States banks, and United States Treasury securities and corporate bonds found larger numbers of foreign purchasers. There was also a substantial influx of foreign direct investment into the United States. Thus United States growth and restructuring during the 1983-1985 period were financed by cutting off outflows and sucking in greater inflows. The international financial consequences of this increase will have to be spelt out in terms of what it may imply for the South.

Domestic capital formation in Western Europe is stagnating (see table 1.3), and this has been the major factor behind the growth of European capital outflows to the United States. During 1984, the international investment position of the United States declined by \$78 billion from its level of \$106.2 billion in 1983. This change of \$78 billion consisted of an inflow of \$98.8 billion from abroad, matched by only a \$20.8 bil-

Box: Comparison of restructuring strategy in the industries of the United States, Japan and Western Europe

The emerging strategy for restructuring seems to be the following:

(a) A shift in terms of the share in total output from low- and medium-technology industries to high-technology industries;

(b) An increase in investment in high-technology products as capital goods inputs allow all industries to raise productivity levels and reduce technological disparities throughout the industrial structure;

(c) Investment in research and development to find new products and processes and to increase the speed of adoption of new discoveries in order to maintain competitiveness.

The actual mode of implementing a restructuring strategy differs between different countries. One path is to let new firms emerge which embody new technologies or sell new products. The growth of these firms depends on overall economic growth as well as financial factors such as the availability of venture capital. Bankruptcies, acquisitions and mergers are one way in which these new firms acquire a permanence in the industrial structure. This is by and large the United States path. The Japanese path is to rely on the existing conglomerates to bear the high cost of investment in research and development and to generate new technologies and products within the existing industrial structure. The Government, through the

Ministry of International Trade and Industry, plays an active role in this strategy, and small firms play the role of subcontractors. European economies seem to have chosen neither the United States nor the Japanese path. At present they are still searching for an effective mode of restructuring. Various forms of legislative and financial encouragement to small firms—through direct government action or tax and subsidy mechanisms, favourable tax treatment of research and development expenditure and changes in the legal and institutional framework of industrial relations—are being tried. The European macro-economic context remains as much a cause as an effect of moderate economic growth.

lion increase in United States assets abroad. Of this \$98.8 billion, \$50 billion came from Western Europe, with only \$13 billion going from the United States to Western Europe—a net change of \$37 billion, or approximately half of the total change in the United States position. By contrast, Japan contributed \$14 billion. Latin America contributed \$19 billion in capital outflow and suffered a \$1.5 billion reduction in United States capital inflows.

If the United States continues to grow faster than Western Europe, albeit at a smaller differential rate, the excess capital from Western Europe will flow to the United States. Japan is also under pressure to liberalize its financial markets, and this will divert some European excess capital to Japan and make it easier for Japan to invest in the United States. The outflow of capital from Latin America to the United States is a more serious matter, since it combines debt repayments exceeding new loans with capital flight. This question is examined again in considering international financial developments in the concluding chapter.

The prospect for sustained high growth in the developed market economies remains weak. The United States decelerated in 1985, and is not likely to regain in 1987 the high growth rates of 1983 and 1984. For Western Europe, the failure to invest in capacity expansion and in restructuring raises doubts about its ability to sustain a high growth performance. This will have differential regional effects on the South. South-East Asia and, to a lesser extent Latin America may benefit from the high growth of the United States and Japan. But North Africa and West Asia and Tropical Africa depend to a greater extent on European growth and it seems unlikely that the European members of OECD will play a locomotive role in the near future.

D. The South

GDP growth in the South as a whole will remain at its 1985 value of 3.1 per cent in 1986 and improve to 3.4 cent in 1987. This slow growth reflects the pattern

in the North, but the South's 0.3 per cent advantage over the North in 1985 will be erased in 1986, to be regained in 1987. A slightly different forecast holds for MVA growth, which will be 4.5 per cent in 1986, and 4.6 per cent in 1987. The size of the differential between North and South, which was zero in 1985, will favour the South by 0.4 per cent in 1986 and 1.0 per cent in 1987. Productivity growth is expected to improve from -0.6 per cent in 1985 to 0.5 per cent in 1986 and 0.8 per cent in 1987. As a result, employment growth in manufacturing will be 3.9 per cent in 1986 and 3.6 per cent in 1987 (see figure 1.8).*

The slow growth in 1986 to 1987 will unequally affect different regions of the South. The Indian Subcontinent and South-East Asia will have above-average GDP and MVA growth, while North Africa and West Asia and Tropical Africa will be below average. Tropical Africa in particular will have GDP and MVA growth below the growth rate of the population.

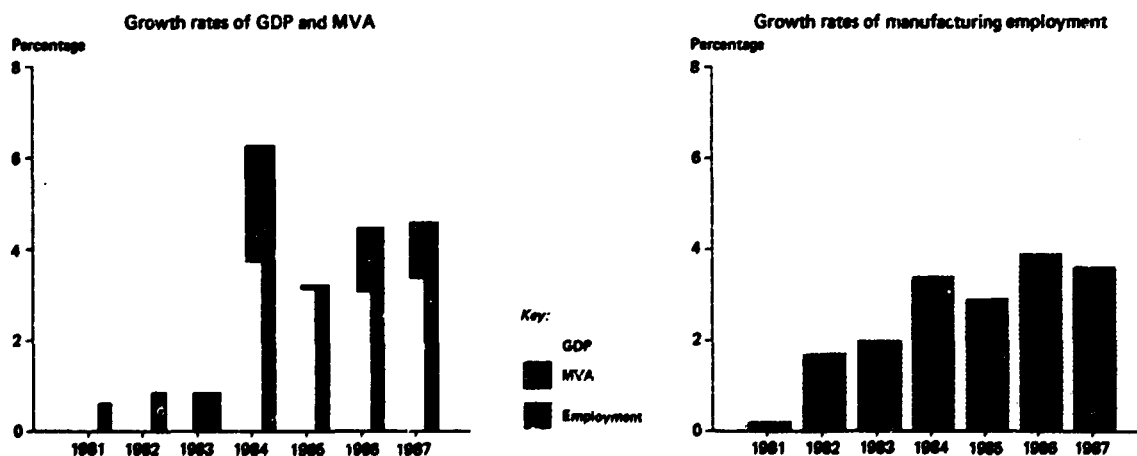
1. Latin America

The prospect in 1986 is for a slow-down in Latin American economic growth to 3.5 per cent from the 1985 rate of 4.0 per cent, and the outlook for 1987 is for continued slow growth at 3.6 per cent, the same level as in 1984, but better than the three years of decline from 1981 to 1983. After the 1974-1975 recession, MVA growth bounced back to 7.5 per cent in 1976 from 0.3 per cent in 1975, and in 1984 the growth rate recovered to 5.3 per cent from -4.4 per cent in 1983. But this time, the debt problem being unresolved, a slow-down is expected from 4.2 per cent in 1986 to 3.9 per cent in 1987 (see figure 1.9).

The main driving force behind the revival of economic activity in 1984 was a significant increase in exports from the region, which reached an all-time

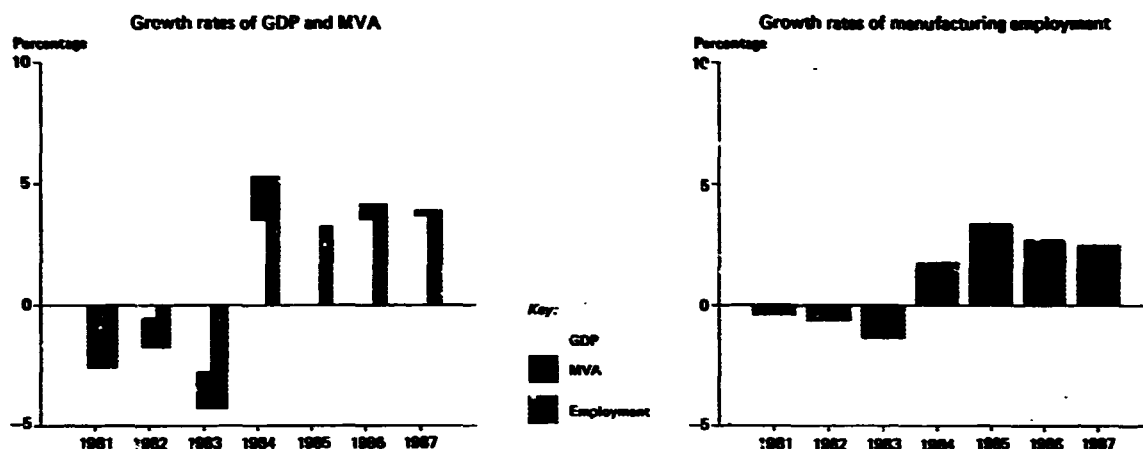
*Note that productivity and employment growth in manufacturing are based on industrial statistics, rather than on national income accounts data.

Figure 1.8. Growth rates of GDP, MVA and manufacturing employment: the South, 1981-1987



Sources: United Nations National Accounts Statistics, United Nations Industrial Statistics and estimates and forecasts by UNIDO/IS/GLO.

Figure 1.9. Growth rates of GDP, MVA and manufacturing employment: Latin America, 1981-1987



Sources: United Nations National Accounts Statistics, United Nations Industrial Statistics and estimates and forecasts by UNIDO/IS/GLO.

high in that year. As a result, the trade balance showed a surplus of \$37.6 billion. At the same time, capital inflows recovered after various rounds of debt rescheduling with the main debtor countries, and the aggregate current account deficit of the region was reduced from \$41 billion in 1982 to \$2.7 billion in 1984. It is noteworthy that the significant recovery in Latin America's external sector permitted an increase in imports by 4.4 per cent in 1984 after drastic balance-of-payments-induced curtailments in the two preceding years, yet imports of the region in 1984 accounted for less than 60 per cent of their record high in 1981.

A closer look at the growth performance of Latin American economies in the recovery reveals significant differences at the country level. In particular, it was the above average growth rate of Brazil in 1984 and its manufacturing sector (6 per cent) which biased the average growth figures upward. The Brazilian economy, which itself accounts for approximately one third of the regional GDP, grew at the rate of 7.8 per cent in 1985, compared with the -3.7 per cent growth rate in Argentina and 3.9 per cent in Mexico. If the largest countries (Brazil and Mexico) are excluded, the regional MVA growth in 1986-1987 will be still lower (see figure 1.10).

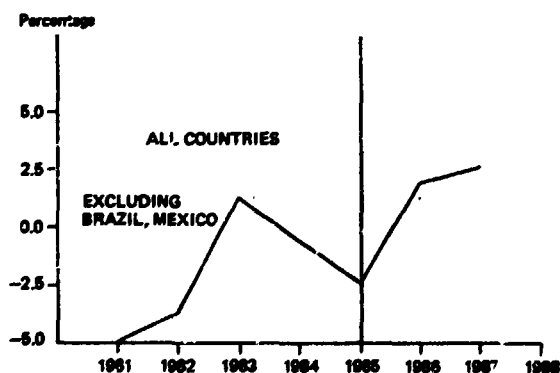
A remarkable feature of the recovery of Latin American exports has been the conclusion of various counter-trade deals [16]. Brazil in particular has been dynamic in promoting such arrangements, paying for crude oil imports from Iraq and the Islamic Republic of Iran with exports of military hardware and foodstuffs. Peru has successfully negotiated with the USSR and other CMEA countries to repay part of its foreign debt through the export of manufactures. Yet in general, the majority of Latin American Governments seem to regard such agreements as a second-best solution only, and the share of Latin American exports channelled through such arrangements remains small.

The recovery of economic activity in Latin America in 1984-1985 was both insufficient and fragile. In the majority of Latin American countries economic growth

lagged behind population growth, and in 12 out of 19 countries per capita income fell in real terms, in many cases for the third or even fifth consecutive year. Hence there is a clear imperative for economic and particularly industrial growth. But the immediate prospect is not bright because of Latin America's dependence on foreign trade, especially with North America (43 per cent of the region's exports go to North America). In 1985, exports from Latin America fell 6 per cent as demand fell in the United States and Western Europe. The current slow-down in growth since the 1984 peak in the United States is projected to continue well into 1987. Latin American exports to North America are expected to grow accordingly [17].

Furthermore, current trends and the political climate in the United States make the imposition of additional obstacles to exports of manufactured goods from developing countries a distinct possibility. To open new outlets in Europe and markets of the South, Latin American countries will therefore need to put much more emphasis on the pursuance of active marketing strategies than in the past.

Figure 1.10. Growth rates of manufacturing value added: Latin America, excluding Brazil and Mexico, 1981-1987



Sources: United Nations National Accounts Statistics, estimates and forecasts by UNIDO/IS/GLO.

A central factor for penetrating new markets, and even keeping actual shares in current markets, is the need to increase the international competitiveness of many Latin American industries. However, the recent encouraging expansion of manufactured exports from several Latin American countries was largely based on the appreciation of the dollar exchange rate and not on a genuine gain in competitiveness through technological improvements and upgrading of the production mix. In addition, it was supported by significant excess capacity resulting from the breakdown of domestic markets in many Latin American countries. The competitiveness of Latin American exports may, therefore, soon turn out to be spurious as they begin to feel the effects of a "softening" dollar.

There is justified concern whether Latin American exporters are sufficiently prepared for this monetary deterioration of their international competitiveness, particularly as the high indebtedness of many enterprises did not allow significant investment for modernization in recent years.

The prospective development of the dollar exchange rate is an external factor on the monetary side. Internally, the acceleration of domestic inflation which accompanied export expansion appears to be equally threatening to future prospects. In terms of simple country averages, inflation increased from 66 per cent in 1983 to 116 per cent in 1984. Weighting countries by population yields an average inflation rate of 165 per cent in 1984, compared with 130 per cent in 1983.

The implication that the larger countries, in particular Brazil, are characterized by higher inflation rates and the fact that it was precisely this country which successfully expanded exports suggest that the two phenomena are not independent. In fact, there are strong indications that the acceleration of domestic inflation is, at least partly, a direct consequence of the instruments used to achieve export expansion. The main stimulus for the tradeables sector comes from exchange rate variations, leading to "expenditure switching". Since Governments did not cut back their expenditure and monetary supply was not strictly controlled, the reduction of resources available for domestic consumption spilled over into price increases. Not coincidentally, 1985 witnessed failures to comply with International Monetary Fund targets by Argentina, Brazil and Mexico.

A fundamental problem which Latin American countries now face, and will continue to face in future, is the need to service their huge debt, which in turn requires them to increase exports and reduce imports and domestic growth ([18], [19]). Basically, however, Latin American industrialization has been import-led. During the 1970s, imports of capital, technology and intermediate input materials fuelled the industrialization process, supported by exports of primary goods and manufactured goods, together with inflows of foreign funds.

In 1985, sluggish growth of export volume plus a precipitous decline in the price of primary commodities reduced Latin America's ability to import and hence its capacity for industrial growth. Particularly hard hit was Mexico, a major oil exporter in the region. This has led to a reduction of credit-worthiness and an inability to service the debt. In addition, the flight of capital from the region, combined with the

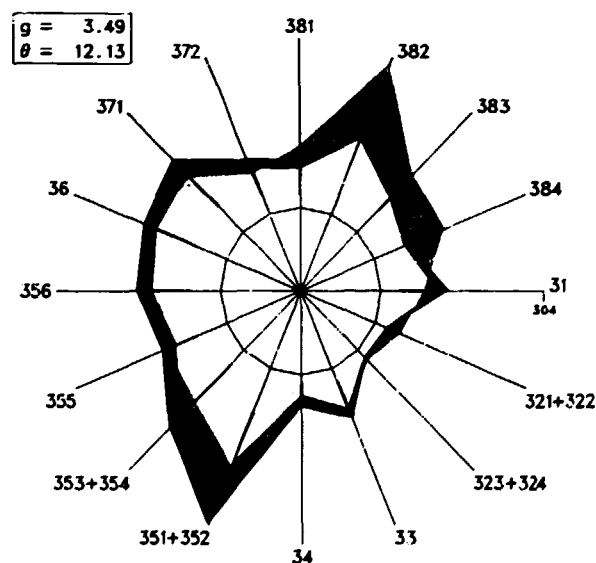
higher debt service burden, has reversed the net flow of credit, which now flows to the North from Latin America. Hence the forced reduction of consumption and industrial growth, involving the risk of political unrest, and debt rescheduling or repudiation have become the only remaining options. The growth and debt relief measures proposed in the Baker Plan represent a positive, if insufficient, recognition of this dire trade-off. The immediate prospects for industrial growth would mainly depend on the easing of the debt burden ([20], [21]).

Nevertheless, the medium- to long-term prospects for the resumption of sustained industrial growth are good in most Latin American countries, given their rich natural resources, their long-standing industrial tradition and experience, their potentially large domestic markets and their proven ability to compete even with highly sophisticated products in international markets. How can these assets be transformed into sustained industrial activity?

Industrial growth will need to be based on a genuine increase in competitiveness of many industrial branches in Latin America. Such an increase will not be achieved simply through indiscriminate trade liberalization, as has been tried in several countries. Genuine competitiveness will require technological improvements, specialization in new products with high growth potential (in other words, structural upgrading in industry) and new, active approaches to marketing. The two main requirements for success are reallocation of existing resources and new investments. Gradual trade liberalization will have a key role to play in meeting those requirements and in setting the course of structural change, but by itself will ensure neither of the two elements of success.

Translating the growth forecasts into the pattern of structural change that such growth will bring about (see figure 1.11), we see the following trends: a slight reversal of the sharp contraction of the capital goods industry (ISIC 381, 382, 383 and 394) that took place

Figure 1.11. Industrial structural change: Latin America, 1970-1987



Sources: United Nations Industrial Statistics, estimates and forecasts by UNIDO/IS/GLO.

Note: See figure 1.7 for key.

during 1980-1985; moderate growth in industries such as rubber and plastic products (ISIC 355 and 356), pottery, glass and non-metallic minerals (ISIC 36), and iron, steel and non-ferrous metals (ISIC 371 and 372); and a continuation of the growth registered during 1980-1985 in petroleum refining and related products (ISIC 353 and 354) and chemicals (ISIC 351 and 352). The latter products reflect Latin America's rich endowment of natural resources, the effect of its import-substitution policy and its relatively weak population pressure as compared, for instance, with South-East Asia. Textiles and clothing (ISIC 321 and 322) and leather and footwear (ISIC 323 and 324) are the industries of least growth in the region, in contrast to the experience of South-East Asia (discussed below). In the face of increasing protectionism in the North against labour-intensive manufactures, the existing pattern of structural change can be expected to continue.

A prerequisite for promoting new investment is increased domestic savings, which could be channelled into industrial activities. In the Latin American context this implies the following:

- (a) The need for monetary stabilization;
- (b) A greater adaptability of the industrial and social system to allow the required changes to take place (for example, a more flexible policy on indexed wages);
- (c) The design and implementation of continuous and consistent industrial policies;
- (d) The creation of a climate conducive to committing resources to industry on a long-term basis.

All these conditions are interrelated and will need to be tackled simultaneously; emphasizing only one aspect, such as monetary stabilization, might lead to economic collapse, as borne out by Latin America's recent economic history. Bringing Latin America's industry back on to a solid growth path remains, therefore, a difficult but essential task, with good prospects of success.

2. Tropical Africa

Compared with other regions, Tropical Africa would seem to enjoy little room for manoeuvre in policy-making. The concurrence of recent adverse events—the worsening debt burden, tumbling commodity prices, famine, drought and political unrest—have made the African situation even worse than before. The urgent need to address these problems would leave few resources for maintaining industrial development. Indeed, in the immediate future the priority for the industrial sector would have to be lower than for the agricultural sector.

The debt problems of Tropical Africa, including the need for rescheduling or the possibility of default, would appear to be no less urgent than those of Latin America. Although the absolute size of the region's debt seems smaller than that of Latin America, its debt looms large compared with its economic size: the debt-to-GDP ratio soared from 18 per cent in 1970 to 52 per cent in 1983. Many countries, among them major ones such as Nigeria, currently have severe

balance-of-payments problems caused partly by large debt-servicing obligations, and partly by the fall of commodity prices on world markets ([22], [23]).

The implications of this situation for industry in Tropical Africa are clear. An overwhelming proportion of manufacturing, though its base is small (on an average, 7 per cent of GDP), is of the import-substitution type and its operation depends on continued supplies from abroad of intermediate products, spare parts and raw materials. This makes the sector fragile and vulnerable to external shocks.*

One important source of such shocks is the price of commodities exported by countries of the region, many of which depend on at most three primary commodities for their export earnings. But the general trend in price movements has been downward since 1977; in 1985 commodity prices hit very low levels, and an improvement is not in sight in 1986.

The region would appear to be further disadvantaged by the patterns of trade linkages with various regions of the world. The upsurge in United States imports in 1984, which provided substantial relief to developed countries, did not benefit this region. The growth rate of United States imports from Africa "improved" from -14.7 per cent in 1983 to -0.5 per cent in 1984, the least of any developing region. Japan's imports from Africa declined by 5.0 per cent in 1984, though this fall was less drastic than in 1983, when a record of -14.6 per cent was reached. The growth rate of imports of the European Economic Community (EEC) from Africa improved from -7.3 per cent in 1983 to 6.7 per cent in 1984, but in absolute terms EEC imports from Africa remained in 1984 at only 80 per cent of the 1980 level.

Intraregionally, the Tropical African countries lack the tight mutual trading, financial, communications and transport connections which characterize other regions. Trade data for Africa as a whole reveal the following two important structural features which also hold for the Tropical African countries as a group: the close dependence on Europe as a destination of exports and source of imports and the minuscule trade between the African countries themselves (see table 1.4).

Against this background, GDP growth in Tropical Africa is expected to be 1.4 per cent in 1986 and 1.6 per cent in 1987. This is lower than in 1985 (2.8 per cent), and it will not be enough to overcome the effects of three years of negative growth from 1981 to 1983. MVA growth will be 1.8 per cent in 1986 and 2.5 per cent in 1987. Thus the prospects for African industrialization remain gloomy (see figure 1.12).

The dismal prospects for the immediate future and over the long term would seem to give little hope for improvement of the serious social and economic situation of the countries of Tropical Africa. For their economies as a whole, developments over the last 15 years may best be characterized as an unfortunate combination of a low starting-point and low or negative growth rates. The social implications of this have been lower adult literacy rates, lower life expectancy at birth and higher child death rates than in any other region. A high and possibly accelerating population growth will, towards the year 2000,

*For a detailed analysis of the debt-industry linkage see "Industry and external debt in Africa: a preliminary analysis", *Industry and Development*, No. 17 (UNIDO publication, Sales No. E.86.II.B.1).

Table 1.4. Trade patterns of developing Africa, 1982
(Percentages)

Item	EEC and EFTA ^a	United States	Eastern Europe	Africa	Other developing countries	Others
Destination of exports	57.0	22.4	3.7	3.3	10.8	2.7
Sources of imports	58.3	9.5	1.3	2.9	15.8	12.2

Source: United Nations Conference on Trade and Development, *Handbook of International Trade and Development Statistics* (United Nations publication, Sales No. E.84.IID.12).

Note: Developing Africa includes the North Africa countries.

^aEuropean Free Trade Association.

accentuate the problems by bringing the size of the population to almost 700 million.

Although the countries of Tropical Africa may be treated as one region for purposes of global analysis, they are in many respects neither uniform nor a group. The area comprises countries such as Nigeria, with a population of 80 million and vast mineral resources and many countries with a population of less than a million and very few resources. Indeed, 26 of the 36 countries designated as least developed are in Tropical Africa, which has a total of 45 countries. With regard to growth and structural change, there are great differences between countries of the region. In terms of industrialization, whereas the manufacturing sector in the Tropical African countries taken together account for 7 per cent of GDP (down from 9 per cent over the last two decades), Kenya, Zambia and Zimbabwe all have manufacturing sectors accounting for more than 10 per cent of the total economy, Zimbabwe's 21 per cent indeed being more in line with industrial market economies.

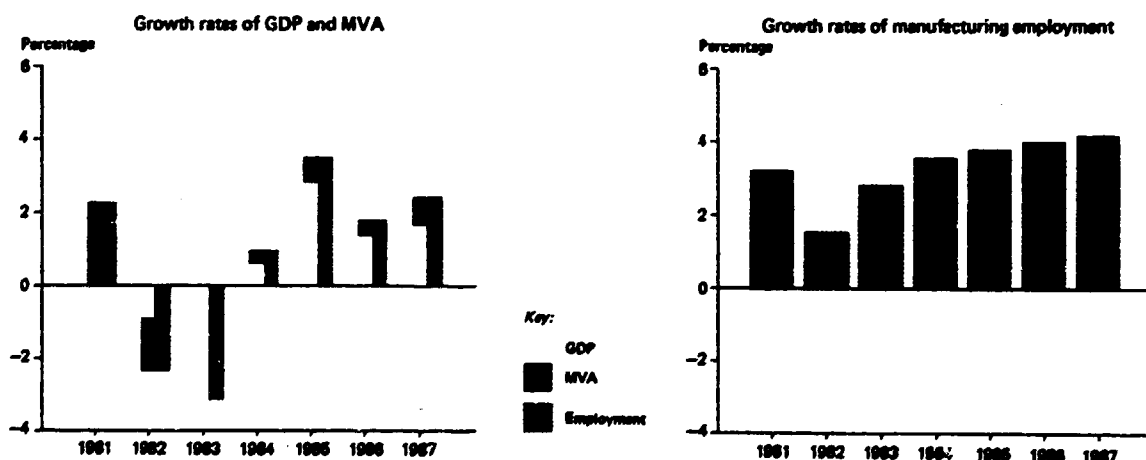
Country disparities are also observable in the growth prospects for the immediate future, though the overall picture for the region looks gloomy. Most of the small countries with few natural resources would seem to suffer more than others. For instance, Chad, Gabon, Nigeria and Uganda are projected to experience a negative growth of MVA in 1986 and 1987, while Zimbabwe should experience MVA growth of 4 per

cent or more for both years. Nigeria, hitherto a leading country in growth, is expected to suffer from negative growth in 1986 owing to the plunging oil price, and will in fact pull down the regional average in 1986 and 1987 (see figure 1.13 and the statistical annex for other countries).

Unfavourable climate and famine have also hit the poorer countries harder. Drought from the Sahel belt to Southern Africa has severely retarded economic growth and industrialization in the 1980s. The effects of drought have been both to weaken the economic base, which for virtually all Tropical African countries is agriculture, and to divert resources into urgent life-saving measures and thus detract attention from long-term policy solutions.

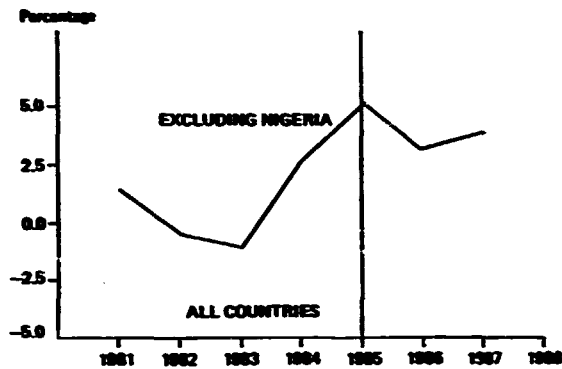
During 1984, a return to normal climatic conditions was reported from most parts of the region. It is generally expected that climatic conditions will have a more positive influence on Tropical African economies in the latter half of the decade. Two questions remain however. To what extent will the manufacturing sector be able to exploit increasing demand from the agricultural sector? And can industrial capacity utilization be readily increased from its present low levels? On the first count, it is generally recognized that such linkages are a weak part of Tropical African economies, and on the second, there is some evidence that a return to higher utilization rates could require considerable investment because of deficiencies in the present capital equipment.

Figure 1.12. Growth rates of GDP, MVA and manufacturing employment: Tropical Africa, 1981-1987



Sources: United Nations National Accounts Statistics, United Nations Industrial Statistics and estimates and forecasts by UNIDO/IS/GLO.

Figure 1.13. Growth rates of manufacturing value added: Tropical Africa, excluding Nigeria, 1981-1987

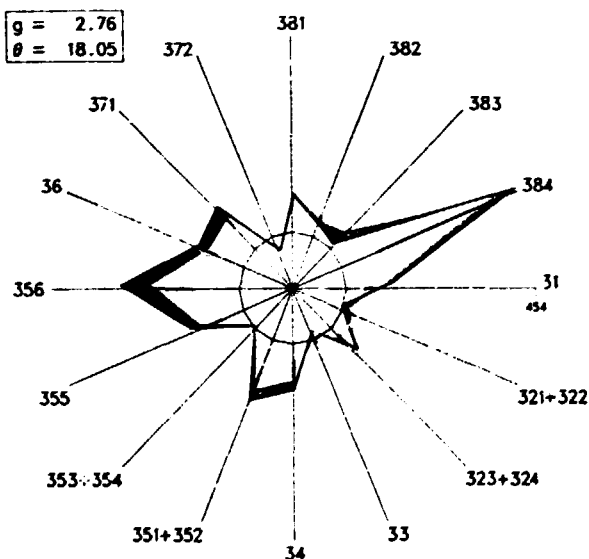


Sources: United Nations National Accounts Statistics, estimates and forecasts by UNIDO/IS/GLO.

The outlook for structural change in the industry of Tropical Africa is illustrated in figure 1.14. Surprisingly, transport equipment (ISIC 384) shows the highest growth from the base year 1970, but this picture reflects the small initial base of the branch and the concentration of automotive production (including trucks and buses) in only a few countries, notably Kenya, Nigeria and Zimbabwe. The three economies together accounted for over 90 per cent of the total number of cars, trucks and buses produced in the region in 1983.

The automobile industry in the region has been fostered by import substitution policies relying on the assembly of imported knocked-down parts. For instance, Kenya has three such plants, namely General Motors Kenya, D.T. Dobie (Datsun) and Fiat Kenya. Zimbabwe has assembly plants for models from foreign companies such as Ford, Mazda, Mitsubishi, Nissan, Peugeot and Renault. These firms enjoy high

Figure 1.14. Industrial structural change: Tropical Africa, 1970-1987



Sources: United Nations Industrial Statistics, estimates and forecasts by UNIDO/IS/GLO.

Note: See figure 1.7 for key.

tariff barriers, but suffer from unfavourable cost-competitiveness by international standards.

Plastic products (ISIC 356) and chemicals (ISIC 351 and 352) are the second and third growth leaders in the region, respectively, after the automotive industry. But the same explanation applies as in the case of automobiles, that is, import substitution behind tariff barriers and production concentration in Kenya, Nigeria and Zimbabwe. Other industrial branches and other countries show mediocre growth performance. In short, structural change in the industry of the region reveals a weak overall industrial base.

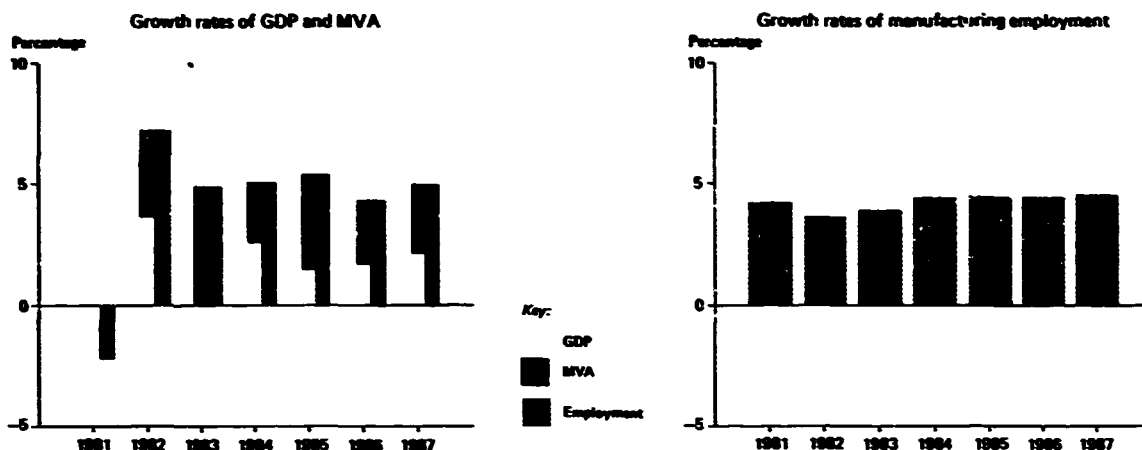
To conclude, Tropical Africa is overall the least industrialized region of the world, although the degree of industrialization varies from country to country. The 1970s and early 1980s have shown the fragility of the industrialization process. There is a prospect of growth in only one out of 28 sectors in 1986-1987, and this happens to be beverages, in particular beer. Policy advice from major development financing organizations has not served to promote further industrial investment on a large scale. In future, development will depend much on what happens to the external environment and the balance-of-payments situation. The major influencing factors, such as economic activity in the EEC, terms of trade, drought and political instability, are, however, outside the control of the Tropical African countries. Actions by the international community could prove to be the only source of improvement and hope for the region ([24], [25]).

3. North Africa and West Asia

With the declining demand for, and falling price of, oil in the world market, the immediate outlook for industrial growth in North Africa and West Asia seems gloomy compared with other regions of the South. GDP growth will decline to 1.7 per cent in 1986 from 2.6 per cent in 1984, but improve to 2.1 per cent in 1987. The expected MVA growth rates are 4.3 per cent in 1986 and 5.1 per cent in 1987, which represents a deterioration from the MVA growth rate of 5.5 per cent in 1985 (see figure 1.15). This fluctuating pattern of MVA growth would appear related not so much to world cyclical conditions as to changes in the level of reserves of foreign exchange earnings. The latter provided a cushion during the recession years of 1981-1983 and helped both demand for and the supply of manufactured goods to grow more or less steadily, until the loss of impetus in 1984.

On the demand side, the size of the domestic market for manufactured goods in North Africa and West Asia multiplied as oil revenues jumped several times since 1973. Although much of oil-revenue-based expenditure leaked out of the economy through imports, domestic industry also benefitted from the demand stimulus. On the supply side, new factories sprang up at a phenomenal speed, often aided by government policies for industrialization. For instance, during the twelve-year period 1970-1982, the number of companies in Saudi Arabia multiplied fivefold to 3,806, joint ventures tenfold to 1,260, and the amount of capital invested 52 times to \$15.6 billion [26]. These economic forces have given an impetus to accelerate the industrialization process in the region, but economic

Figure 1.15. Growth rates of GDP, MVA and manufacturing employment: North Africa and West Asia, 1981-1987



Sources: United Nations National Accounts Statistics, United Nations Industrial Statistics and estimates and forecasts by UNIDO/IS/GLO.

obstacles considered below have begun to arouse concern among policy makers.

The world market for industrial products from the region does not look buoyant in the short term. In particular, refined petroleum and allied chemical products (the growth leader in the region) have begun to reach the world market at a time when the world petroleum refining industry has been experiencing negative growth, an annual average rate of -8 per cent between 1973 and 1983. Saudi Arabia's petrochemical capacity alone, though small at the moment, could reach 4 to 5 per cent of the world total by the time their plants still under construction begin producing at full capacity, which is not very far off. In sum, the emergence of North Africa and West Asia as a power in the petrochemical field seems imminent.

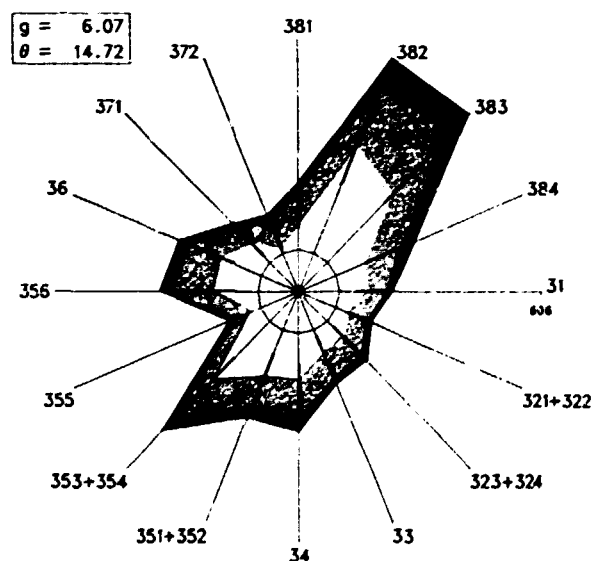
A spectre of protectionism in the North looms large as the refining and allied chemical industry of the North would seem to be rapidly losing its competitiveness. The input cost advantage in North Africa and West Asia is considered to be absolute. For instance, natural gas, an input for the production of ethane and methane, is virtually free. The latter, feedstocks for diverse petrochemical products, can compete easily as a substitute for expensive naphtha, which Japanese and European chemical industries use. In addition, electricity and other utilities cost much less than in industrial countries. The cost advantage of North Africa and West Asia could become the basic force for the dislocation of petrochemical industries in the North, which may react to such a development by resorting to increasing protectionism. In the long run, however, both producers in the South and consumers in the North of chemicals and plastics will have a heavy cost to pay for such a reaction.

Longer-term prospects for industrial development in North Africa and West Asia appear promising, unless the world economy goes through an extended period of slow growth. The region has abundant financial resources, even though the speed of accumulation of oil wealth has slowed down since 1980. It can buy most modern technology and capital goods to process the whole range of petroleum-related and energy-intensive products. The list of downstream

industries is long, including ethylene, liquefied natural gas, methanol, ammonia, urea, aluminium, steel, copper and plastics of various kinds. The skills required for these products can be imported from other regions of the South if indigenous sources prove inadequate. The pattern of structural change in the short term is, however, much along the lines of previous years (see figure 1.16). Petroleum-related industrial sectors have been the driving force behind structural change in the region. The unusually high growth rate of the machinery sector (ISIC 382 and 383) reflects the relatively small initial base and the dominant role of the Islamic Republic of Iran and Turkey, and to a lesser extent Egypt, as capital goods producers in the region.

In addition to the opportunities for exploiting downstream industrial linkages within a country, the

Figure 1.16. Industrial structural change: North Africa and West Asia, 1970-1987



Sources: United Nations Industrial Statistics, estimates and forecasts by UNIDO/IS/GLO.

Note: See figure 1.7 for key.

region would also seem to offer opportunities for South-South co-operation linking industrial sectors between countries. Industrialization in the region has created some complementarities *vis-à-vis* the rest of the South which deserve more attention than hitherto received ([27], [28]).

The first and most obvious complementarity lies in the opportunity for contractors from other regions of the South to participate in the construction of new industrial projects or for their engineering industries to supply equipment. The other principal complementarity involves the following two forms of backwards integration: opportunities for the States of the Gulf to invest in developing countries to obtain the raw materials required for their new industries; and possibilities for selected developing countries with a high share in manufacturing to integrate backwards into joint ventures in the Gulf for production of basic chemicals or intermediate products for their own domestic industries.

Industrial and infrastructure projects in the Gulf offer genuine opportunities for contractors and construction firms of the South. Since the plants are to be built primarily in the Gulf, it is expected that Asian contractors, in particular, will be heavily involved in the projects, reflecting their already important role in the region. This represents added business in the sense that such plants replace comparable facilities in OECD countries, where Asian labour or firms would have little chance of entry.

A second area of complementarity involves the possible supply of raw materials for energy-intensive industries. The major industries are listed in table 1.5, together with their most important raw materials other than energy. The inputs are arrayed alongside the developing countries which are potential sources of supply.

Such opportunities are limited, however, and the only two large inputs are bauxite for aluminium smelters and iron ore for certain types of steel plants. Bauxite can be supplied by a range of countries in the South, including Brazil, Guinea and India, but the most aggressively competitive exporters of bauxite, and now the major source for North Africa and West Asia, is Australia, which, while a major exporter of raw materials, ranks among the industrial countries of the North.

Backwards integration by oil-exporting countries into the supply of industrial raw materials from developing countries has in fact already begun on a small but systematic scale. Kuwait, starting in the early 1970s, has evolved a major financial interest in the iron mines of Mauritania, an interest which remains, however, only a blueprint for backwards

integration since Kuwait's own steel project has been postponed and the Mauritanian ores are marketed elsewhere.

One noteworthy venture is the bilateral arrangement between India and the Islamic Republic of Iran, involving counter-trade in iron ore and crude oil, a model which may be repeated in future. Indian iron ore is supplied to the steelworks in Isfahan under a long-term contract, while crude oil is shipped by the Islamic Republic of Iran to the Madras refinery in India.

Active co-operation has also emerged in the manufacture of compound fertilizers. Kuwait has taken the lead in this sector, and phosphates from Jordan and Tunisia are being processed with ammonia, principally from Kuwait, to produce compound fertilizers. Intra-regional, intra-South joint manufacturing activity in this specialized industry is expected to expand in line with plans for expansion of phosphate production in Egypt, Jordan, Morocco and Tunisia. Such projects are limited to the few developing countries with exportable phosphate deposits.

Kuwait participates in two interconnected fertilizer ventures in Tunisia, namely the *Industrie chimique maghrébine* and the *Société engrais de Gabès*, which produce diammonium phosphate and phosphoric acid. The complementarity between the gas-derived nitrogen supplies of Kuwait and the phosphate deposits of Tunisia is particularly clear. Provision has been made for future extraction of uranium from the phosphoric acid plant, since the Tunisian deposits contain over 100 parts per million of recoverable uranium.

Kuwait and several other Arab oil producers are also involved in integrated manufacture of fertilizers in Jordan through three ventures, namely the Arab Potash Company, the Jordan Phosphate Mining Co., and Jordan Fertilizer Industries, which supply the potassium (potash) and phosphate for processing with Kuwait's gas-derived nitrogen (ammonia).

There are also a few examples where selected developing countries with a high share in manufacturing have undertaken joint industrial ventures in oil-exporting countries. Taiwan Fertilizer Company has a partial interest as a partner with Saudi Basic Industries Corporation (SABIC) in one of the ammonia-urea complexes at Jubail, and the Company's share of the output will replace very high-cost ammonia produced in Taiwan Province of China from naphtha. Similarly, the Lucky conglomerate from the Republic of Korea, has announced its participation with SABIC in a polyvinyl chloride plant using local ethylene to be constructed in Jubail.

Table 1.5. Sources of raw materials required for energy-intensive industries in North Africa and West Asia

<i>Industry</i>	<i>Principal raw material</i>	<i>Source of supply (developing country or area)</i>
Aluminium	Bauxite	Brazil, China, Dominican Republic, Guinea, Guyana, India, Jamaica, Suriname
Chlor-alkali	Salt	Argentina, Bahamas, Benin, Brazil, India, Pakistan, Turkey
Copper	Copper ores (various)	Chile, Papua New Guinea, Peru, Philippines, Zaire, Zambia
Fertilizers	Phosphates	Brazil, Christmas Island, Jordan, Morocco, Nauru, Senegal, Togo
Steel	Iron ore	Brazil, Chile, Democratic People's Republic of Korea, India, Liberia, Mauritania, Peru

Source: UNIDO [27].

Both of the latter cases represent a form of "adaptive complementarity", since the two projects are in effect substituting for related plants located in Taiwan Province of China and the Republic of Korea, which would have used the much more expensive liquid-derived fuels or feedstocks. Both ventures displace domestic capacity, but do provide for participation.

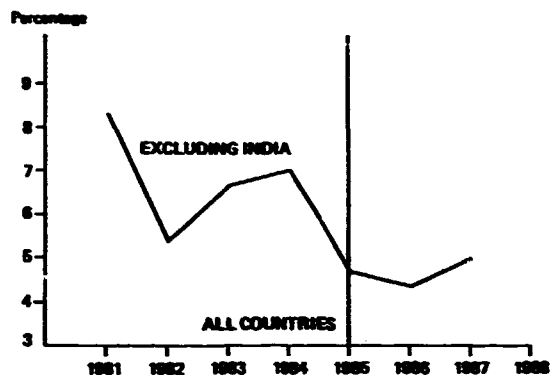
4. Indian Subcontinent

Although the industrial sector has failed, so far, to play the role of growth leader in the region, there are signs of a change in this situation. The GDP growth of the region will drop to 4.2 per cent in 1986 from 5.7 per cent in 1984, but pick up to 4.8 per cent in 1987. India, the dominant economy in the region, is expected to increase its GDP at an average annual rate of 5 per cent under its latest (1985-1990) development plan. Regional MVA is expected to grow at 4.6 per cent in 1986 and 5.5 per cent in 1987, higher than average growth rates in the South. Historically, the effect of the largest country in the region, India, has been to depress the growth rates, but in 1985 India pulled the regional growth rate up, and the same effect is forecast for 1986 and 1987 (see figures 1.17 and 1.18).

The internal factors underlying these forecasts consist of two basic changes in India, namely, the achievement of self-sufficiency in grain production during the late 1970s and early 1980s, and a shift in industrialization policy towards liberalization. In the past, the need to import food grains used up a great deal of foreign exchange. The improved agricultural development means foreign exchange savings and also greater manoeuvrability in resource allocation for industrial development. Rural demand for manufactured goods could provide a further stimulus for industry and spur regional diversification in the location of industry.

In Pakistan, the Government pursues a policy aimed at deregulating industrial activities and assigning a leading role to private enterprises. Recently, how-

Figure 1.18. Growth rates of manufacturing value added: Indian Subcontinent, excluding India, 1981-1987



Sources: United Nations National Accounts Statistics, estimates and forecasts by UNIDO/IS/GLO.

ever, the economy has encountered a number of difficulties such as a poor harvest in agriculture, a slow-down in export growth, reduced home remittances of emigrant workers and accelerated inflation. These events led the Government to scale down the current five-year plan (1983-1988), which accords high priority to the steel-based engineering goods industries.

Throughout the region a gradual movement towards liberalization or decentralization can be observed. Policy makers are gradually attaching importance to the simplification of restrictions on imports, the streamlining of investment sanctioning procedures, the simplification of licensing procedures, the general relaxation of controls on private investment, the partial denationalization of public sector industries and measures to increase the efficiency of public industrial enterprises through more competition with private ones. Since most countries in the Indian Subcontinent have only very recently embarked upon this approach to industrial policy, the extent to which it will bear fruit in the near future remains to be seen. However, the new approach would seem to show some signs of positive results. For instance, in India

Figure 1.17. Growth rates of GDP, MVA and manufacturing employment: Indian Subcontinent, 1981-1987



Sources: United Nations National Accounts Statistics, United Nations Industrial Statistics and estimates and forecasts by UNIDO/IS/GLO.

the rate of capacity utilization had been declining (from 76 per cent in 1970 to 67 per cent in 1983 for 30 selected industries). In 1984-1985, however, there has been some improvement in the capacity utilization rate [29].

The lack-lustre industrial growth performance of India, particularly among public industrial enterprises, has reflected both the lack of effective competition and inadequate infrastructure, including communications, transport and power supplies which have often been the source of bottlenecks. The new five-year plan of India (1985-1990) would seem to be designed to address these problems by allocating a large share of investment to infrastructure projects. Pakistan under its sixth five-year plan (1983-1988), also gives top priority to developing the energy sector [30]. Such investment will undoubtedly help reduce unutilized capacity which is often caused by power shortages, a breakdown in communications or slow delivery of inputs.

With regard to the external factors affecting the industry of the region, the short-term prospects do not appear bright. Remittances of expatriates in North Africa and West Asia have been falling, and will fall more steeply as the oil revenues decline. The remittances were large enough to cover the balance-of-trade deficit almost entirely for Pakistan and substantially for India.* The fall in the world price of major export commodity items has continued in recent years. However, unfavourable external conditions would hurt the region less compared with other developing regions more open to the world economy. It is remarkable that the region's dependence on export demand in general, and on industrial exports in particular, has been substantially lower than in the case of most South-East Asian and Latin American countries. The share of total exports in GDP is as low as 7 per cent for Bangladesh, 6 per cent for India and 9 per cent for Pakistan (Sri Lanka is an exception at 22 per cent). This means that external stimuli for industrialization could be relatively small, and that the major thrust for industrial development must come from internal sources. Greater trade at a measured pace, however, would bring healthy competition to the sluggish and inefficient sections of industry.

The internal sources should include the possibility for intraregional trade, particularly between India and Pakistan. For political reasons, trade between the two countries has been virtually cut off despite their apparently complementary patterns of industrial structure.

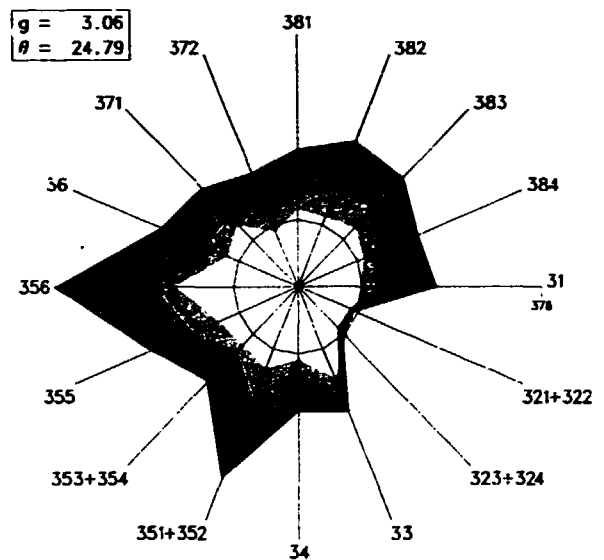
India has a well-developed capital goods sector (for example, electrical machinery), in addition to chemicals and plastics products. It has even been exporting technologies and turnkey plants, with exports of the latter amounting to \$1.9 billion in 1982. The type and destination of plants exports are highly varied, including plants for the production of textiles, cement and metal products, exported mainly to South and South-East Asia, and of sugar, paper, steel and machine tools, exported mainly to Africa.

In contrast, the leading industries in Pakistan are non-electrical machinery, non-ferrous metal products,

fertilizers and petroleum-related products. A substantial amount of these products, in addition to traditional manufactures such as clothing and footwear, has been exported to Africa and West Asia (the Gulf countries) in recent years. Soon to be added to the list may be steel and steel-using downstream products—such as transport equipment and agricultural machinery, which are a top priority under the current five-year plan.

The region also plans to make use of foreign technology and capital funds through joint venture arrangements. To take India again as an example, the number of joint ventures approved jumped from 336 in the first six months of 1984 to 440 in the first six months of 1985, a 30 per cent increase. These are attracted by the size of the internal market and liberalization policies, as well as the abundant labour supply. Policy makers expect these joint ventures to play a catalytic role in bringing new technology to the region. The short-term prospects for industrial structural change in the region are reflected in figure 1.19.

Figure 1.19. Industrial structural change: Indian Subcontinent, 1970-1987



Sources: United Nations Industrial Statistics, estimates and forecasts by UNIDO/IS/GLO.

Note: See figure 1.7 for key.

5. South-East Asia

In contrast to the Indian Subcontinent, the industry of South-East Asia is highly dependent on the world market (particularly the United States and Japan) for sales of manufactured goods. The slow-down in the growth of the world economy will put a brake on South-East Asia's industrial growth performance. Its GDP growth rate will increase to 3.8 per cent in 1986 (from 2.6 per cent in 1985, a very bad year for the region), and then to 4.1 per cent in 1987, below that of the Indian Subcontinent. The MVA of the region is expected to grow at about 5.7 per cent in both 1986 in 1987, and manufacturing employment at 6.1 per cent and 4.9 per cent respectively (see figures 1.20 and 1.21). These growth rates are well below the rates the region was accustomed to in the past.

*See M. Desai, "Arabia with oil: impact on the third world", paper presented at a conference organized by the Arab Research Centre, London, June 1985.

Figure 1.20. Growth rates of GDP, MVA and manufacturing employment: South-East Asia, 1981-1987



Sources: United Nations National Accounts Statistics, United Nations Industrial Statistics and estimates and forecasts by UNIDO/IS/GLO.

For the developing market economies of South-East Asia, which in 1983 and 1984, with the notable exception of the Philippines, were characterized by a rather strong growth performance, 1985 was not a good year. GDP growth in 1985 was markedly slower in China (Taiwan Province), Hong Kong, Indonesia, Malaysia, the Republic of Korea and Thailand, and was negative for the second year in the Philippines and even in Singapore. Growth is expected to be somewhat higher in most of these economies in 1986. Throughout the region there is much evenness in intersectoral growth rates, with a narrow spread around the mean.

The slowdown in 1985 reflected both cyclical and structural factors. The hesitant recovery of the United States economy, which is the dominant market for manufactured exports of most of the countries in the region, combined with the appreciation of many of their currencies against the dollar, has weakened the competitiveness of their exports. The resource-rich among them, for example Indonesia and Malaysia, have also been affected by depressed commodity prices.

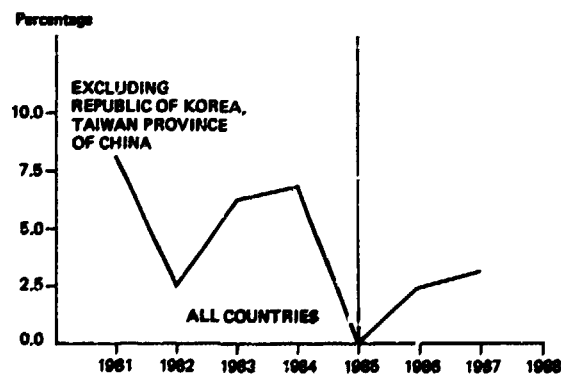
Specific factors have contributed in individual countries. In the Republic of Korea, the declining number of construction contracts with countries of West Asia has coincided with some disruption arising from the planned shift from labour-intensive to high-technology industries. In Thailand, domestic activity has been dampened by fiscal restraint. In Singapore, several developments—severe and increasing excess capacity in oil refining and shipbuilding, temporary saturation of demand for residential and office construction, and over-investment in hotels coinciding with a drop in the tourist trade—have come together to produce a sharp downturn. The problems besetting the economy of the Philippines continue to depress investment, exports and employment.

The two hardest-hit countries, the Philippines and Singapore, are expected to show some improvement in 1986. Throughout the region, Governments are responding with a variety of policy measures, including selective stimulus to domestic activity, etc.

diversify export products and markets, and, in some countries, greater exchange rate flexibility and deregulation of some branches of the economy. How successful these measures will be in restoring higher rates of growth will still depend largely on the performance of the United States economy and especially on the rejection of protectionist pressures in developed countries. The prospects of slow growth for the world economy, combined with growing protectionism in developed countries, would probably force the countries of the region to expand both their domestic and their intraregional markets.

Thus, diversification of product mix and export destination will be a major policy concern of the region in the immediate future. This may involve formulating alternative strategies away from the type based on export-led growth, often associated with "laser beam" tactics practised by some countries to penetrate industrial markets. The concentration of efforts on a few selected industrial products has helped to identify growth leaders such as textiles,

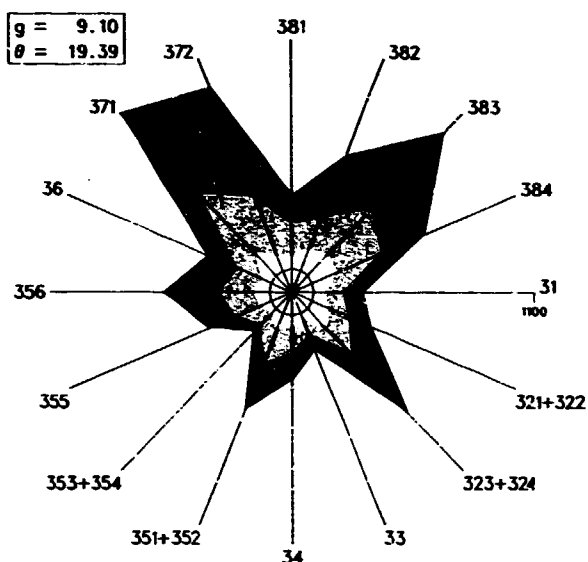
Figure 1.21. Growth rates of manufacturing value added: South-East Asia, excluding the Republic of Korea and Taiwan Province of China, 1981-1987



Sources: United Nations National Accounts Statistics, estimates and forecasts by UNIDO/IS/GLO.

wearing apparel, footwear, electronics and iron and steel (see figure 1.22). But these are the sectors in which demands for protection have lately risen. Such demands stem from an unwillingness to bear the high costs of industrial adjustment in developed countries. The conflict is unlikely to disappear in the near future. One possible response of the South would be to look for additional strategies, for instance, to exploit resource complementarity among countries within the region.

Figure 1.22. Industrial structural change: South-East Asia, 1970-1987



Sources: United Nations Industrial Statistics, estimates and forecasts by UNIDO/IS/GLO.

Note: See figure 1 7 for key.

Such an approach would require co-operation in the industrial restructuring of the region, if only to maintain the dynamism of the recent past ([31], [32]). The available evidence suggests that such structural changes have already been going on since the late 1970s. For instance, third-world multinational companies are more active in this region than elsewhere, and intraregional trade as a share of the region's total exports has steadily increased.

Resource complementarity between countries in the region would seem to have played a part in these developments. The relatively abundant skilled manpower resources of some have been combined with the abundant natural resources of others. It would seem worthwhile to explore the potential of such a new strategy for the region.

6. China*

It is hazardous to attempt short-term sectoral forecasts for Chinese industry, especially as the economy has embarked upon a series of market-oriented experiments and institutional reforms.

*Projection exercises for China have been carried out independently, since the UNIDO model system does not contain China as a region. Hence the forecasts contained in this section do not conform to those for other regions.

Assuming, however, that the Government will pursue a set of policies designed to ensure steady and stable growth toward the goal of quadrupling economic output by the year 2000, a few educated guesses seem possible. The policy measures should deal with, among other things, the following immediate problems, which have mainly resulted from the unusually high industrial growth rate of over 14 per cent in 1984 and an estimated 16 per cent in 1985. First, the infrastructure, especially power supplies, transport and the storage system, has been overloaded. Second, the resulting shortage of input materials and electricity has led to underutilized industrial capacity. Third, expanding demand, partly supported by excess money supply in 1984, has brought inflationary pressure. Based on incomplete data, a 10 to 11 per cent price increase occurred in the major cities in 1985. Fourth, although growing imports might have mitigated excess demand for goods and hence inflationary pressure, the trade deficit has rapidly widened, reportedly from \$1 billion in 1984 to \$7 billion in 1985, threatening China's balance-of-payments position.

In order to address these problems the Government is attempting to reduce the rate of growth, mainly by restricting the money supply and government investment expenditures. Despite problems of fine-tuning of policy tools, this approach seems to be working; tight credit and other control measures brought down the industrial growth rate of 23.1 per cent for the first half of 1985 to 14.7 per cent by September 1985.

A special difficulty in deliberately slowing down industrial growth arises from the fact that, while the decentralized agricultural sector has proved to be one of the major forces driving industrialization, rural industries are not easily controllable. Under the new incentive system allowing farmers to sell in the free market farm output over and above a fixed quota, agricultural production and farmers' income have soared. This, coupled with past savings, has created a surge of demand for manufactured goods such as clothing, shoes, bicycles, tape recorders, television sets, washing machines and refrigerators.

Rural industries have also sprung up very rapidly under the well-publicized profit incentive system introduced in industry. "Growth of rural industry over the first five months of 1985 was more than 50 per cent on an annualized basis, while overall industrial growth was 23.3 per cent in the same period" [33].

The savings that were needed to support expansion of rural industry also came from rural families. Bank savings by peasants have multiplied during the last several years. Per capita savings among more than 800 million rural residents reached 80 yuan renminbi in 1985, compared with 8 yuan renminbi in 1978. The Government which had just liberalized the rural sector is now hard put to reverse its policy and control the activities of 800 million people who have saved, invested and produced in rural industry. Instead, the Government could more easily restrict the State-owned industrial enterprises in urban areas.

It seems reasonable, therefore, to assume the same policy stance and to aim at approximately 8 per cent growth for 1986 and 1987. Based on historical relationships between output (net material product) growth rate and various branches of Chinese industry,

manufacturing growth figures are projected for 1986 and 1987 (see table 1.6). All branches collectively are expected to grow at 9.3 per cent. Machinery leads with a growth rate of 10.7 per cent, which seems consistent with the expected high demand for capital goods, especially in rural industries.

Table 1.6. Forecasts of growth rates for selected industrial branches in China, 1986 and 1987

Sector	Growth rate in 1986 and 1987 (percentage)
Metallurgy	7.8
Electricity	8.1
Coal	4.8
Oil refining	6.7
Chemical products	9.9
Machinery	10.7
Building materials	9.1
Food processing	10.2
Textiles	8.8
Paper products	9.9
Total manufacturing	9.3

Source: UNIDO/IS/GLO.

Notwithstanding the encouraging performance of the economy of China since 1979 [34], one might ask the following question: how likely is it that China will enjoy a favourable external environment in future? The answer to this question involves guesswork concerning international market forces relating to trade, capital inflows, joint ventures, technology flows and the policy positions of other countries.

China has decided to adopt an open-door policy because foreign inputs, if effectively combined with domestic inputs, could accelerate industrialization faster than in a closed economy. The lure of the giant market in China has attracted the attention of entrepreneurs in both developed and developing countries in recent years. There is evidence of increasing trade with and foreign investment in China, although the current global recession seems to have curbed it somewhat.

The openness of a country may be measured by the share of imports plus exports in the national income. According to this definition, the openness of the Chinese economy would seem to have advanced quickly from 11.8 per cent in 1978 to a peak of 19 per cent in 1981. Since then, the ratio has remained at between 18 and 19 per cent. This compares with the trend in the United States, where the ratio jumped from 17 per cent in 1978 to 21.6 per cent in 1979, and thereafter steadily declined to 17.1 per cent in 1984. Considering the recent protectionist pressures and trade deficit in the United States, it would not be surprising if the ratio diverges, with the ratio for China increasing and that for the United States remaining at the same level (see figure 1.23).

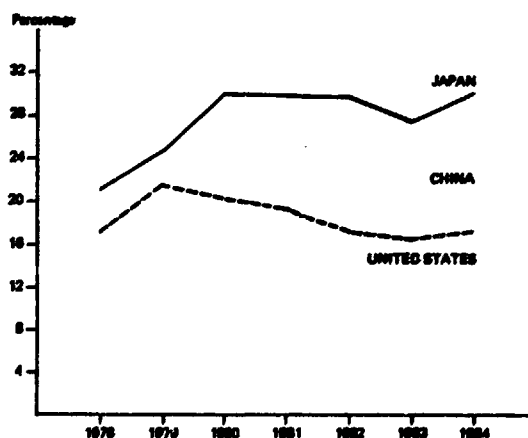
Between 1979 and 1984, China's total exports increased from \$13.6 billion to \$24.8 billion in current prices, an average annual growth rate of 12.7 per cent, while world exports grew at about 3.1 per cent per year during the same period. China's imports have increased from \$15.6 billion to \$26 billion, a 10.7 per cent annual growth rate.

Various regions of the world seem to have played different roles in the breakdown of the increased trade figures. Japan is China's leading trading partner, followed by the United States (see table 1.7). Japan's share of China's total imports increased from 25.2 per cent to 31.0 per cent during the 1979-1984 period, while its share in China's total exports increased only slightly, from 20.3 per cent to 20.8 per cent. The United States trails far behind Japan, accounting for 14.8 per cent of China's total imports in 1984 (up from 11.9 per cent in 1979) and 9.3 per cent of its total exports (up from 4.4 per cent in 1979). Both the EEC and the European centrally planned economies have had a declining share of trade with China. Broadly speaking, geographical proximity would seem to be a dominant factor in trade increases.

Developing countries have played an important role as China's trading partners, taking 53 per cent of its total exports in 1984, up from 41.5 per cent in 1979. The share of developing countries in China's total imports has also increased rapidly, from 16.7 per cent in 1979 to 24.2 per cent in 1984. Much of this increase may be attributed to the growing importance of South-East Asia [35]. Geographical proximity and the oft-reported Asian dynamism would seem to be accountable for the prominence of South-East Asia as a trading partner of China.

A question of interest is whether the pattern of shifting trading partners will continue in the future. Several factors make this likely. First, resource complementarity has developed between China and other South-East Asian countries since the end of the Second World War, but only recently has China opened its doors. For instance, Japan and the rapidly industrializing economies around China would be eager to provide consumer durables, technology, capital and know-how to China in return for China's natural-resource-intensive commodities, including agricultural products and energy. An invisible asset of these countries would be their own experience of industrialization. A more short-term consideration is the recession experienced by the EEC and the United

Figure 1.23. Openness to the world economy: China, Japan and the United States, 1978-1984



Source: International Monetary Fund, *International Financial Statistics Yearbook 1985* (Washington, D.C., 1985).

Note: Openness index = $100 \times (\text{exports} + \text{imports}) / \text{national income}$. National income of China = net material product.

Table 1.7. Share of trading-partner regions in China's exports and imports, 1979 and 1984

(Percentages)

Economic grouping	Share in exports of China			Share in imports of China		
	1979	1984	Difference 1979-1984	1979	1984	Difference 1979-1984
Developed countries	41.3	41.9	+0.6	70.7	69.0	-1.7
United States	4.4	9.3	+4.9	11.9	14.2	+2.9
Japan	20.3	20.8	+0.5	25.2	31.0	+5.8
European Economic Community	12.3	8.7	-3.6	20.9	12.0	-8.9
Developing countries	41.5	53.0	+11.5	16.7	24.2	+7.5
Africa	0.7	2.2	+1.5	1.0	1.2	+0.2
Asia	31.9	37.7	+5.8	4.7	16.0	+11.3
Europe	4.4	1.6	-2.8	4.7	2.5	-2.2
Latin America	1.0	1.8	+0.8	5.2	3.4	-1.8
North Africa and West Asia	3.5	9.8	+6.3	1.2	1.1	-0.1
Centrally planned economies (CMEA)	8.9	5.0	-3.9	8.5	5.9	-2.6
World total ^a	13 614	24 831		15 621	25 950	

Source: International Monetary Fund, *Direction of Trade Statistics Yearbook* (Washington, D.C., International Monetary Fund, 1985).

Note: The shares do not add up to 100 per cent because of residuals unaccounted for and countries and regions omitted.

^aIn millions of dollars.

States in recent years. Japan is looking for markets in China to sell its products, such as cars, trucks, television sets and refrigerators, which face low demand or import barriers in developed countries.

Moreover, when the bilateral trade balance turned in favour of Japan in 1985, China asked Japan to increase purchases of petroleum, coal and agricultural products (corn, cotton etc.). Having been unable, because of the infrastructure bottleneck, to fulfill such requests, Japan agreed to provide technical assistance, to invest in railways, port and storage facilities, and in some cases even to accept repayment for such investment not in dollars, but in commodities spread over future years. This type of co-operative and problem-solving approach differs from the conventional arms-length transactions in international trade. The organizing ability of Japanese General Trading Companies facilitates the integrated approach from production phases to transport and marketing in Japan, or even in a third country. How effectively this approach could help to overcome the gaping bilateral trade balance in favour of Japan remains to be seen.

E. Regional comparison and synopsis

Our forecasts for 1986 and 1987 show that the world economy will grow at a moderate rate. The effect of this on the outlook for the South is seen in the projected growth rates of MVA in Tropical Africa at one end and South-East Asia at the other. Tropical Africa needs a much greater boost to its economy to achieve growth rates of 3.0 per cent and above. The key may be in internal agricultural development, stable if not rising prices of primary products and higher growth in Western Europe, which is Tropical

Africa's traditional market. For South-East Asia, the slow-down in the North means a substantial decline in its growth rate from the high years of the late 1970s and early 1980s. These countries geared their development to external markets and their very success has been held as an excuse against them for protectionist retaliation. But even without such retaliation, a slow-down in the North has a dampening effect on growth rates in South-East Asia.

Even allowing for a small margin of error on the pessimistic side in the forecasts, it is quite clear that the 1986-1987 period will not see a substantial improvement in the industrial position of the South *vis-à-vis* the North. For total manufacturing, the share of the South was 11.0 per cent in 1980. If the forecast growth rates prove to be accurate, in 1987 the share of the South will remain 11.0 per cent. This constant figure implies, as a consequence, a decline in Latin America's share from 5.7 per cent to 5.0 per cent, no change in Tropical Africa's share of 0.5 per cent, and a rise from 2.2 per cent to 2.7 per cent for South-East Asia, from 1.1 per cent to 1.3 per cent for the Indian Subcontinent, and from 1.4 per cent to 1.5 per cent for North Africa and West Asia. Such a shift after seven years shows what a terrible toll the recession and the modest recovery have taken on the world economy and makes it difficult to entertain any hopes about the implementation of global industrialization as endorsed by UNIDO in the Lima Target.

If the world economy functioned like a well-oiled machine with its various component parts moving in harmony, more confidence could be placed in the future course of events. But past experience has shown it to be a fragile mechanism which can malfunction and fail to achieve its full potential if there is a lack of collective effort.

METHOD USED FOR SHORT-TERM PROJECTIONS

The short-term forecasts of GDP, MVA and employment presented in chapters I and II and in the statistical annex were derived from quantitative time series analysis of historical data. GDP and MVA data are supplied by the United Nations Department of International Economic and Social Affairs (starting in 1960). In order to base the forecasts on the most recently available information, the data have been supplemented by collecting information from various national statistical organizations or research institutes and United Nations regional commissions or by UNIDO estimates based on press releases etc. (the last updating of the data was in April 1986). Thus, time series of GDP and MVA up to 1985 for 180 countries were available for the forecasting procedure. For each country, GDP and MVA were forecast by means of a regression model estimating time trends and cyclical behaviour, as well as the interdependence of GDP and MVA.

These forecasts, however, are not consistent with each other since the interdependencies between countries through, for instance, trade and financial linkages are not taken into account. Therefore, the UNIDO-UNCTAD (UNITAD) global model was used to achieve interregional consistency of the individual country forecasts. The UNITAD model

simulations were carried out on a regional level and the resulting growth forecasts of regional GDP and MVA were finally disaggregated into country forecasts.

In order to forecast 28-sector value added, 82 of the 180 countries were selected for which sufficient data from United Nations industrial statistics were available. Again, various national sources and UNIDO estimates were used to improve the coverage of the data and extend the time series up to 1984. The forecasts of value added for each of the 82 countries in each of the 28 industrial sectors are based on estimates of the contribution of the following two components: (a) the dependence of the sector on the overall economic situation in the country expressed in terms of GDP; and (b) the sector-specific time behaviour expressed in terms of a lag-structure of the value added of the sector.

The employment forecasts for each manufacturing sector were derived from the forecast of value added of the same sector. The forecast was again determined by two components: the dependence of employment on value added in the sector (expressed in terms of a labour productivity function and the specific time behaviour of employment in the sector).

II. Profiles of 28 branches of industry: short-term outlook, present situation and long-term prospects

The aim of this chapter is to consider the following aspects of each of the 28 individual branches of industry that comprise the manufacturing sector: the short-term outlook for 1986 and 1987; the present situation in the industry; and the long-term prospects for the industry.

Under the heading "short-term outlook" UNIDO presents estimates of the growth in the level of output of each of the 28 branches of industry for the South, the North and five regions of the South. The forecast was made first at the country level for 82 countries; after that the regional aggregates were compiled. The industrial output of those 82 countries is only a sample, but it is a sample that covers 95 per cent of industrial output in the South and almost 100 per cent of industrial output in the North.

Under the heading "present situation" the stage reached in development of each branch of industry in the South is considered. This section examines trends in the level of output of specific products, raw material requirements, the role that small-scale enterprises and transnational corporations play in the industry, the level of self-sufficiency reached in terms of local production, the types of products still imported and the export performance of the industry. Relevant UNIDO activities specific to each industrial branch in the field of technical assistance and the System of Consultations are also considered.

Under the heading "long-term prospects" some of the factors determining the world-wide development of each branch of industry in the future are considered. Prospects for rapid growth are found in sectors such as electrical equipment, plastic products and industrial chemicals. The prospects for further import substitution in the South and increased exports to the North are assessed. The impact of recent technological innovations in the industry is considered.

A. Summary of the outlook for 28 industrial branches in 1986 and 1987

The short-term outlook in most branches of industry in the South and the North is for a larger increase in output in 1986 and 1987 than the average rate achieved in the period 1980 to 1985. Total output of manufactured goods in the South is forecast to increase by 4.4 per cent in both 1986 and 1987, compared with growth in the North of 3.8 per cent in 1986 and 3.3 per cent in 1987.

At the regional level, growth in manufacturing output is forecast to be faster in the Indian Subcontinent, Latin America and Tropical Africa than during the period 1980-1985, but in North Africa and West Asia and South-East Asia the rate of increase is expected to be slower. These overall trends were described in chapter I and are reflected in the short-term outlook for each branch of industry in 1986 and 1987 summarized in table 2.1.

The forecasts depend mainly on the level of manufacturing output achieved in 20 developing economies that accounted for 86 per cent of the total output of the South in 1980, their contribution in individual branches of industry ranging from 80 to 95 per cent (see table 2.2). The short-term outlook for Latin America depends critically on the level of manufacturing output expected in Brazil, Mexico and Argentina, which, in 1980, respectively accounted for 35 per cent, 24 per cent and 20 per cent of the total manufacturing output of the region. In the Indian Subcontinent, India (80 per cent) and Pakistan (14 per cent) accounted for most of the manufacturing output of the region in 1980. In the South-East Asia region, important contributions were made by China (Taiwan Province) (27 per cent), the Republic of Korea (21 per cent), the Philippines (13 per cent), Indonesia (11 per cent) and Hong Kong (9 per cent). In Tropical Africa, Nigeria (40 per cent), Zimbabwe and Ghana (each 12 per cent) and Kenya (7 per cent) contributed 71 per cent of the region's total, whereas in North Africa and West Asia the contribution of Turkey (36 per cent), the Islamic Republic of Iran (21 per cent) and Egypt (9 per cent) were important. Sufficient data are not available to include Saudi Arabia in the total for North Africa and West Asia.

A substantial expansion of exports to the North helped the South to increase its output in some industrial branches in the 1970s. In the period 1980-1983, the growth of these exports slowed down, but there was a sharp rise in 1984 when the high value of the United States dollar encouraged an exceptional increase in the level of imports of that country. This was followed by slower growth in 1985, a period when import gains were consolidated. The outlook for expanding exports in the period 1986 and 1987 is not as favourable as in 1984, although the physical volume of world trade is expected to increase by 5 per cent in 1986 and 1987, compared with 3 per cent in 1985.

In such an international trade environment, in which the prospects for increasing exports are uncertain,

the attention of developing countries has already switched to strategies which emphasize increased local production of inputs required for each industrial branch, thus making the country more self-sufficient. Hence in 1986 and 1987 the replacement of imports from the North by increased production in the South is likely to play an important role in raising manu-

facturing output. This greater inward orientation of industrial strategy is expected to help developing countries to achieve a faster rate of industrial growth than developed countries in 1986 and 1987. Table 2.3 reflects trends in the growth of the South's share of world value added in various branches of industry up to 1987.

Table 2.1. Growth of output in 28 branches of industry, 1970 to 1987

(Percentage changes in value added)

ISIC Branch	Region									
	South					North				
	1970-1979	1980-1984	1985	1986	1987	1970-1979	1980-1984	1985	1986	1987
3 Total manufacturing	6.2	2.6	2.3	4.4	4.4	3.8	1.7	3.8	3.8	3.3
311 Food products	4.6	3.9	4.0	3.7	3.7	3.3	2.3	2.6	3.0	2.9
313 Beverages	7.2	2.8	3.5	3.2	3.5	3.6	0.8	1.1	2.8	2.7
314 Tobacco products	5.0	4.1	3.0	3.1	2.7	2.2	0.2	0.3	1.7	1.8
321 Textiles	3.2	1.1	-0.5	2.4	2.4	2.4	-0.2	0.3	2.1	1.6
322 Wearing apparel	4.8	3.3	0.5	4.1	4.1	2.6	0.1	2.4	1.5	1.2
323 Leather and fur products	2.8	-1.3	1.6	2.8	1.7	1.7	0.6	-1.8	1.7	1.2
324 Footwear	3.2	3.3	3.6	3.6	3.1	1.0	-1.0	-0.9	0.7	1.2
331 Wood and wood products	4.6	2.4	2.9	4.0	3.9	2.1	0.6	0.1	2.2	1.1
332 Furniture and fixtures	5.0	-0.4	5.0	3.9	3.7	4.3	0.4	2.7	3.7	3.2
341 Paper and paper products	6.2	3.9	4.2	5.2	5.3	3.0	1.6	4.3	3.1	3.0
342 Printing and publishing	1.6	1.3	2.4	1.8	2.9	2.8	2.4	-0.4	3.3	2.4
351 Industrial chemicals	10.7	5.3	4.6	7.0	6.8	5.5	2.3	4.3	5.0	3.8
352 Other chemical products	8.4	5.0	5.0	5.8	6.0	4.7	2.1	3.8	4.9	4.1
353 Petroleum refineries	7.5	4.3	3.3	3.2	3.8	3.6	-0.5	-1.2	2.1	2.8
354 Miscellaneous petroleum and coal products	3.8	2.0	3.4	4.9	5.1	2.6	0.8	2.5	2.4	2.4
355 Rubber products	6.5	2.1	0.9	5.6	5.1	3.8	1.5	4.9	3.9	3.4
356 Plastic products	9.5	4.6	3.8	6.0	6.0	7.3	3.4	6.2	6.3	6.4
361 Pottery, china and earthenware	5.9	-0.2	-0.9	3.6	3.2	3.4	-0.9	1.1	3.3	3.5
362 Glass and glass products	7.4	2.5	0.5	4.6	4.6	4.4	0.4	4.4	4.3	4.0
369 Other non-metal mineral products	7.9	2.9	2.4	5.0	5.2	3.1	-0.4	0.4	1.7	1.6
371 Iron and steel	7.7	2.7	4.7	6.4	6.5	1.7	-1.5	0.2	2.1	1.3
372 Non-ferrous metals	4.5	4.4	2.3	5.5	4.3	3.5	0.7	0.5	2.6	2.0
381 Metal products	6.7	0.8	-0.2	4.1	4.2	3.4	-0.2	2.7	2.5	2.1
382 Non-electrical machinery	11.4	-2.2	2.2	6.1	5.4	4.9	2.4	7.2	5.0	4.3
383 Electrical machinery	10.5	4.9	0.4	6.1	6.2	5.3	6.6	7.1	6.5	5.9
384 Transport equipment	8.0	-0.7	0.3	4.0	3.5	4.1	2.0	6.4	3.7	3.2
385 Professional and scientific equipment	11.4	1.7	2.2	6.2	6.7	5.2	1.4	6.9	6.6	5.6
390 Other manufacturing industries	5.8	0.2	-3.7	4.4	3.9	5.4	1.5	4.5	4.8	4.6

Source: UNIDO data base.

Box: Schedule of UNIDO Consultations on industrial sectors

ISIC	Branch	First Consultation	Second Consultation	Third Consultation	Fourth Consultation
311/312	Food products	1981	1984		
3114	Fish processing	1987 ^a			
3115	Vegetable oils and fats	1977	1984 ^b		
323/324	Leather, leather products and shoes	1977	1980	1984	
331	Wood and wood products	1983			
3511	Petrochemicals	1979	1981	1985	
3512	Fertilizers	1977	1978	1980	1984
3522	Pharmaceuticals	1980	1983	1987 ^a	
381/382 and 389	Building materials	1985			
371	Iron and steel	1977	1979	1982	1986
372	Non-ferrous metals	1987 ^a			
381-385	Capital goods	1981	1985		
3822	Agricultural machinery	1979	1983	1986 ^a	
3838	Electrical power equipment		1987 ^c		

^aConsultations planned for the biennium 1986/1987.

^bIncluded as special topic of the Second Consultation on the Food Processing Industry.

^cIncluded as special topic of the Second Consultation on the Capital Goods Industry.

Table 2.2. Contribution of 20 selected developing economies^a to the total manufacturing output of the South in 1980

(Percentages)

ISIC Branch	Top 5 countries and areas ^b	Top 10 countries and areas ^c	Top 20 countries and areas ^d
3 Total manufacturing	56.3	72.9	89.5
311 Food products	54.3	70.0	85.9
313 Beverages	40.1	54.6	83.4
314 Tobacco products	33.8	61.1	80.8
321 Textiles	52.4	68.2	88.2
322 Wearing apparel	45.6	59.1	85.7
323 Leather and fur products	59.5	67.8	81.4
324 Footwear	60.5	71.0	82.2
331 Wood and wood products	56.5	73.1	87.4
332 Furniture and fixtures	64.2	72.7	84.0
341 Paper and paper products	57.7	73.5	90.4
342 Printing and publishing	62.7	72.4	90.3
351 Industrial chemicals	62.6	85.5	94.6
352 Other chemical products	57.1	71.4	89.9
353 Petroleum refineries	22.9	69.2	86.3
354 Miscellaneous petroleum and coal products	38.3	59.8	91.6
355 Rubber products	54.6	74.4	90.1
356 Plastic products	62.5	73.4	92.8
361 Pottery, china and earthenware	66.4	82.6	93.9
362 Glass and glass products	60.3	77.9	94.3
369 Other non-metal mineral products	56.4	72.5	89.5
371 Iron and steel	67.4	85.3	95.1
372 Non-ferrous metals	41.0	56.2	95.5
381 Metal products	63.5	76.1	90.5
382 Non-electrical machinery	77.6	88.0	95.0
383 Electrical machinery	59.2	74.8	91.7
384 Transport equipment	66.7	78.2	93.0
385 Professional and scientific equipment	53.1	71.0	94.5
390 Other manufacturing industries	79.0	88.0	95.3

Sources: United Nations Industrial Statistics, estimates and forecasts by UNIDO/IS/GLO.

^aThe 20 developing countries and areas with the largest industrial output in 1980 measured in terms of value added.

^bArgentina, Brazil, China (Taiwan Province), India and Mexico.

^cTop 5 plus Indonesia, the Philippines, the Republic of Korea, Turkey and Venezuela.

^dTop 10 plus Chile, Colombia, Egypt, Hong Kong, Iran (Islamic Republic of), Malaysia, Nigeria, Pakistan, Peru and Thailand.

B. Forecasts and analysis of data

1. Food products (ISIC 311, 312)

Slaughtering, preparing, preserving meat
 Dairy products
 Canning, preserving fruits and vegetables
 Canning, preserving, processing fish
 Vegetable and animal oils, fats
 Grain mill products
 Bakery products
 Sugar factories, refineries
 Cocoa, chocolate, sugar confectionery
 Other food products
 Animal feed

(a) Short-term outlook

The output of the food-processing industry in developing countries is expected to increase by 3.7 per cent in the years 1986 and 1987, which is in line with the average 3.9 per cent per annum achieved from 1980 to 1985. Demand for processed food comes mainly from the growing urban population, which in the past has increased by 4 per cent per annum or more in many developing countries.

The fastest increase in output, 6.7 per cent in 1986 and 7.1 per cent in 1987 is expected in the Indian Subcontinent. In Latin America, a region that produced 64 per cent of the output of the South in 1980, output is expected to increase by 3.2 per cent in 1986 and 1987, continuing the recovery which started in 1984. In South-East Asia, which accounted for 18 per cent of the South's output of processed food in 1980, the annual growth rate is expected to be 4.6 per cent in 1986 and 4.1 per cent in 1987. This is an improvement over the downswing in 1984 and 1985, but less than half the growth rate of the early 1980s. In North Africa and West Asia the recovery from the 1984 recession is expected to be weak, with growth rates of around 3 per cent being far below the level of previous years. The outlook for Tropical Africa, the region which most needs greater food production, has improved with better weather and more emphasis on increasing local food production; as a result, the need for food imports is less and the rise in food prices has been contained.* Output in developed countries is expected to increase by around 3.0 per cent in 1986 and 1987 in line with recent trends.

*See "The critical situation in Africa", paper presented to the twenty-third session of the Conference on the Food and Agriculture Organization of the United Nations, Rome, 9-28 November 1985.

Table 2.3. South's share of world value added in 28 branches of industry, 1970, 1980 and 1987

		(Percentages)		
ISIC Branch		1970	1980	1987
3	Total manufacturing	8.9	11.2	11.5
311	Food products	14.2	16.2	17.4
313	Beverages	11.7	16.0	17.6
314	Tobacco products	22.2	26.9	31.0
321	Textiles	19.5	20.8	21.6
322	Wearing apparel	10.8	12.7	14.7
323	Leather and fur products	13.1	15.1	14.8
324	Footwear	12.4	14.9	18.5
331	Wood and wood products	8.6	11.5	13.0
332	Furniture and fixtures	6.5	7.3	7.3
341	Paper and paper products	6.8	9.0	10.2
342	Printing and publishing	8.3	7.8	7.6
351	Industrial chemicals	6.1	9.7	11.2
352	Other chemical products	11.6	15.6	17.7
353	Petroleum refineries	15.9	22.7	27.4
354	Miscellaneous petroleum and coal products	9.0	11.0	12.0
355	Rubber products	10.7	14.5	14.7
356	Plastic products	9.9	12.1	12.3
361	Pottery, china and earthenware	9.1	11.5	11.6
362	Glass and glass products	9.2	11.8	12.3
369	Other non-metal mineral products	9.8	15.3	18.3
371	Iron and steel	5.5	9.6	12.6
372	Non-ferrous metals	8.2	8.8	10.7
381	Metal products	6.5	8.9	9.3
382	Non-electrical machinery	2.7	4.6	3.7
383	Electrical machinery	5.0	7.7	8.8
384	Transport equipment	5.2	7.6	6.6
385	Professional and scientific equipment	2.0	3.5	3.4
390	Other manufacturing industries	16.1	16.1	14.2

Sources: United Nations Industrial Statistics, estimates and forecasts by UNIDO/IS/GLO.

(b) *Present situation*

In 1980 the food-processing industry employed 4.5 million of the 29 million workers employed in the manufacturing sector in the South. It is one of the largest industrial branches in most developing countries in terms of both output and employment, though its relative importance declines as a broader range of industries is established. The contribution of the food-processing industry to the total manufacturing output of a developing country varies from 7 per cent in the Republic of Korea to 20 per cent in Ethiopia. In most of the least developed countries, processing of agricultural crops account for one third of total manufacturing output. Food processing also makes a higher-than-average contribution to industrial output in countries that export processed food (for example, Denmark, Kenya, New Zealand and Uruguay).

Developing countries contributed only 14 per cent of the world's output of processed food in 1980 because only a small proportion of food is processed in industrial establishments rather than in the home or on the farm. Cereals are the largest item of food consumption. Developing countries produce about 95 per cent of world rice output and most of this is not subject to industrial processing; it is mainly wheat and coarse grains that are processed industrially. Developing countries also consume more root crops such as cassava and pulses than developed countries, and much of this is not processed industrially.

Developing countries produce more than 50 per cent of world output of sugar and oil-bearing crops, but they account for only about a third of meat output and 20 per cent of dairy products world-wide.

The South exports more processed food to the North than it imports. Cereals and dairy products still account for half the food imports of developing countries; coffee, tea, tropical fruits and sugar account for two-thirds of their exports. At present, exports of processed food from the South are discouraged by the efforts of developed countries to become more self-sufficient in agriculture, by the level of effective protection on imports of processed food, by the taxes imposed on the sale of certain food products in some developed countries and by the strict health regulations which apply to processed food imports.

At the end of the 1970s, the United Nations Centre on Transnational Corporations identified 813 investments by transnational corporations in the food-processing industry in developing countries. The Centre estimated that transnational corporations accounted for about 12 per cent of the output of the food-processing industry in developing countries, chiefly in the branded food and export market sectors [36]. Transnational corporations have made a major contribution in the processing of coarse grains which in many countries are imported from the North. They have contributed to the processing of wheat and oil-bearing crops. They have made little contribution to the processing of root crops, pulses and sugar, but they have been active in the export-oriented processing of fruit and vegetables, fish, meat, coffee, tea and cocoa.

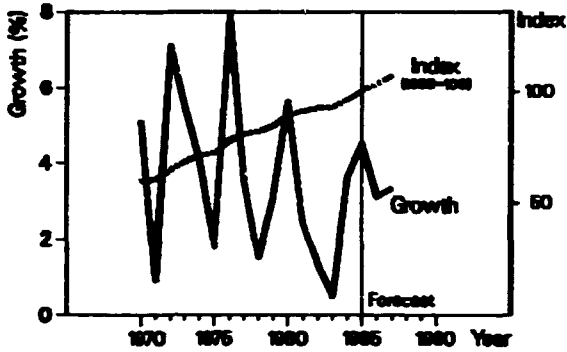
Although large-scale food processing plants represent an important part of this industry in some countries, in the majority of developing countries food processing is undertaken on a much smaller scale as a rural industry. In two recent studies by UNIDO and the International Labour Organisation (ILO), food-processing is viewed as a means of meeting the basic needs of the population; it then becomes important to consider not only the most appropriate choice of technology, but also the nutritional value of the food after processing. In the ILO study, processes for manufacturing different types of food were considered and related to the availability of raw materials and the traditional ways of processing food in rural areas.*

Examples of UNIDO technical assistance to the food processing industry in 1985 include a plant to extract edible oil from rice bran in Bangladesh, an industrial bakery in Mozambique, a soya-milk-processing plant in El Salvador and manioc-processing plants in Nigeria and Sierra Leone. Ways to rehabilitate an agro-industry complex in Guinea-Bissau were recommended. Assistance was provided to the Cane Sugar Research Centre in China, and a request was received for a regional project on co-operation among food research and development centres in Latin America. Assistance was also provided to the Centre

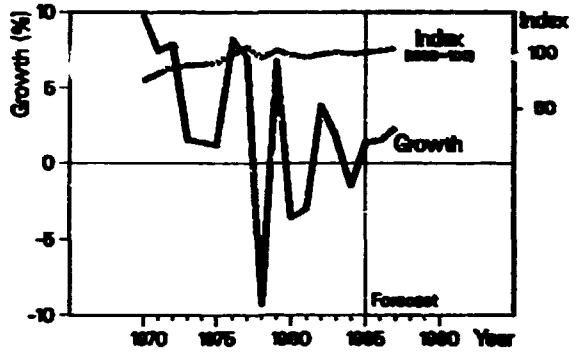
*See "Technical choice and employment in food processing and storage and related policy issues", paper presented to the UNIDO International Forum on Appropriate Technology, New Delhi, November 1978; and Christopher G. Baron, ed., *Technology, Employment and Basic Needs in Food Processing in Developing Countries* (New York, Pergamon Press, 1980), containing 10 case-studies on milk processing, fruit and vegetable preservation, fish preservation, coconut oil production, rice milling, maize milling, bread baking, storage of food grains and cane sugar refining.

ISIC 31t: Food products
 (Value added in constant 1980 prices)

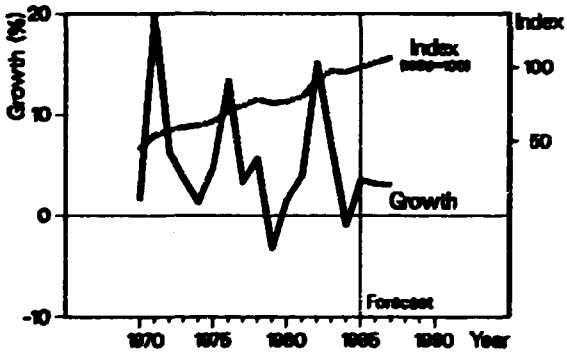
Latin America



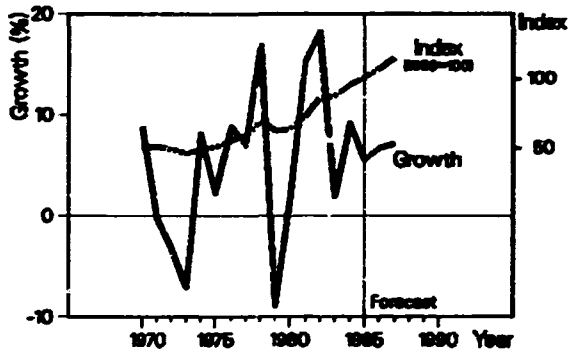
Tropical Africa



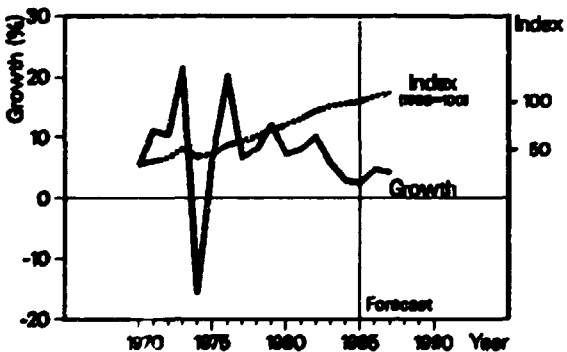
North Africa and West Asia



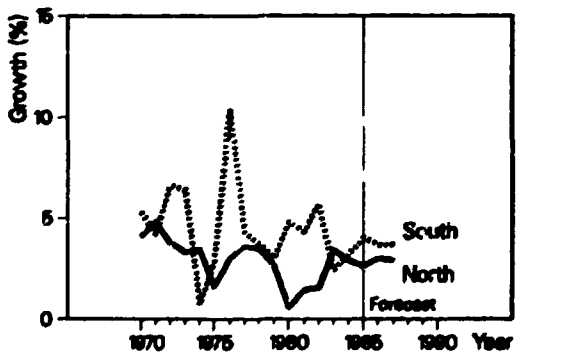
Indian Subcontinent



South-East Asia



North and South



Source: United Nations Industrial Statistics,
 estimates and forecasts by UNIDO/IS/GLO.

**Box: UNIDO Guides to Information Sources
on the food-processing industry**

- No. 1 *Meat-processing industry (ID/163)*
- No. 7 *Vegetable-oil processing industry (ID/197)*
- No. 13 *Animal feeds industry (ID/131)*
- No. 19 *Canning industry (ID/158)*
- No. 23 *Dairy products manufacturing industry (ID/177)*
- No. 27 *Packaging industry (ID/194)*
- No. 28 *Coffee, cocoa, tea and spices industry (ID/198)*
- No. 39 *Flour milling and bakery products industry (ID/268)*

Cassava-based industries (IS/INQ.5)

for Food Packaging Technology in Brazil, the National Packaging Centre in Cuba and the Arab Regional Packaging Centre based in Morocco.

UNIDO has convened two Consultations on the Food-Processing Industry. The first, held at the Hague in November 1981 and attended by 67 countries, discussed the following matters: the strengthening of the food-processing industries through the integrated development of all sectors of the food production, processing and marketing chain; and the expansion of technical and economic co-operation for strengthening the food-processing sector in developing countries [37]. The Second UNIDO Consultation on this industry, held at Copenhagen in October 1984, gave special emphasis to vegetable oils and fats, which had been discussed at an earlier Consultation in 1977. The Second Consultation considered the following: an integrated approach to food processing, vegetable oils and fats, animal feed, meat and dairy industries; and the role of co-operatives and small- and medium-scale enterprises in the industry [38].

(c) Long-term prospects

The output of food in developing countries is expected to double within the next 20 years. Hence there is considerable scope for further expansion of the food-processing industry in most developing countries. As the urban population grows, the proportion of marketed food supplies is expected to increase and enhance the need for additional food-processing capacity. The greater storability of processed food represents an improvement in food security. The processing of food also contributes significantly to the reduction of post-harvest losses which now represent a serious drain on food supplies in many developing countries.

As incomes rise and the urban population grows, the long-term outlook is for a higher share of consumed food to be processed industrially rather than in the home and on the farm. Just how rapidly this share will rise depends on the priority which developing countries give to expanding this branch of industry. Some countries have already adopted self-sufficiency in food production as a major development policy goal, and have reinforced this by establishing closer and more effective links between agricultural production, food processing and food marketing.

However, many countries have yet to consider fully the stimulation which the food processing industry can and should give to increasing food production.

The long-term outlook for exports of processed food is uncertain. The new round of international trade negotiations now under consideration by the General Agreement on Tariffs and Trade may re-examine the whole system of protecting agriculture used by developed countries at present. It is, however, by no means certain that these negotiations will immediately help to improve the outlook for developing countries' exports of food and processed food. The main policy emphasis of developing countries in 1986 and 1987 is therefore likely to be on expanding capacity in the food-processing industry to satisfy fast-growing domestic demand.

2. Beverages (ISIC 313)

Distilling of alcoholic spirits

Wine

Beer and other malt liquors

Soft drinks

(a) Short-term outlook

The output of the beverages industry in developing countries is expected to increase by 3.2 per cent in 1986 and 3.5 per cent in 1987. This means a strong improvement over the recession of 1982 and 1983, but is still far below the high growth rate of the 1970s.

Growth is expected to be fastest in the Indian Subcontinent, but even at above 7 per cent it will still be less than the average achieved since 1975. Growth rates of around 3.3 per cent sustain the recovery in Latin America, while an average growth of 3.5 per cent in South-East Asia conforms with the downward trend in growth rates since 1978. In North Africa and West Asia the forecast growth rates of 1.7 and 2.4 per cent still represent a slow growth trend. In Tropical Africa the beverages industry contributed over 12 per cent to manufacturing output in 1980. Although only moderate growth is expected (2.1 per cent in 1986 and 2.8 per cent in 1987), the share of this industry will increase to almost 15 per cent.

In the North output is expected to grow by 2.7 per cent in 1986 and 1987. This continues the upward trend in growth rates which started in 1983.

(b) Present situation

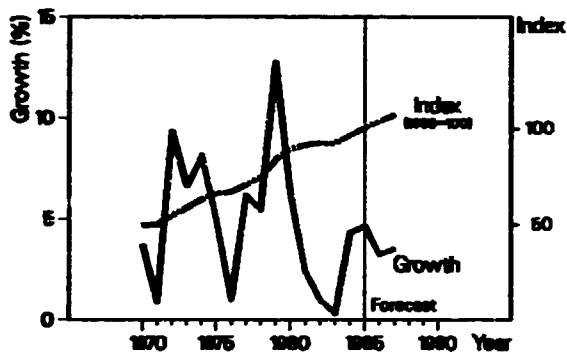
Beverages are produced in virtually all developing countries, but output is largest in a few countries with a large population, and 10 developing economies* accounted for 72 per cent of the South's output in 1980. The contribution of the top 20 economies was 87 per cent of the output of the South in 1980.

Soft drinks account for the major part of the output of the beverages industry in terms of volume. Demand

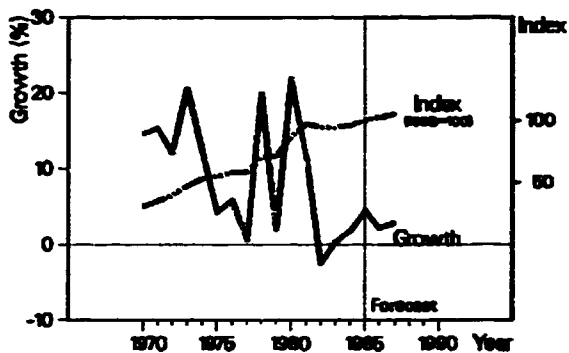
*These were Argentina, Brazil, China (Taiwan Province), Colombia, Mexico, Nigeria, Peru, the Philippines, the Republic of Korea and Venezuela.

ISIC 313: Beverages
 (Value added in constant 1980 prices)

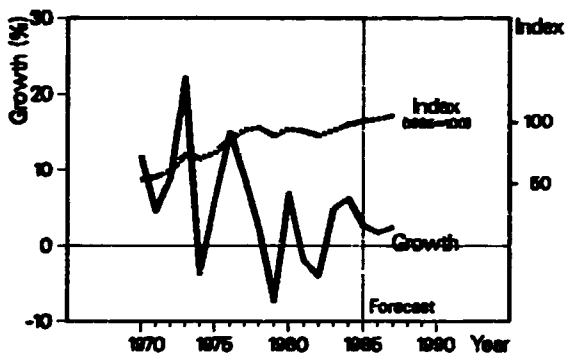
Latin America



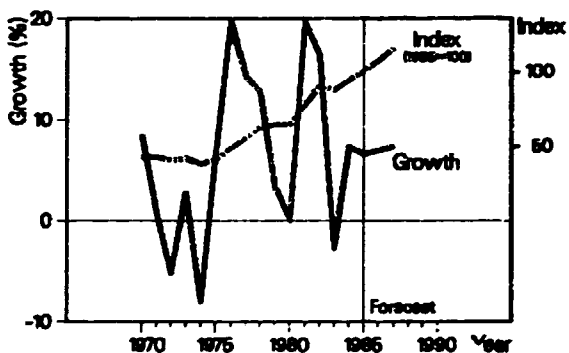
Tropical Africa



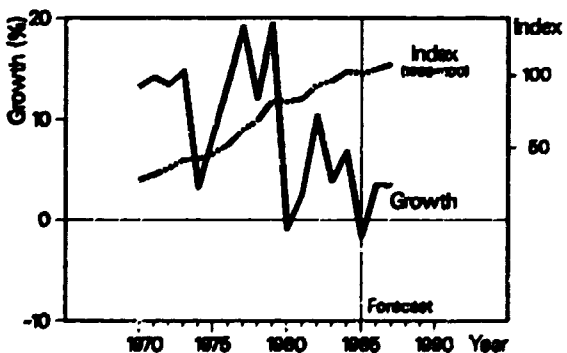
North Africa and West Asia



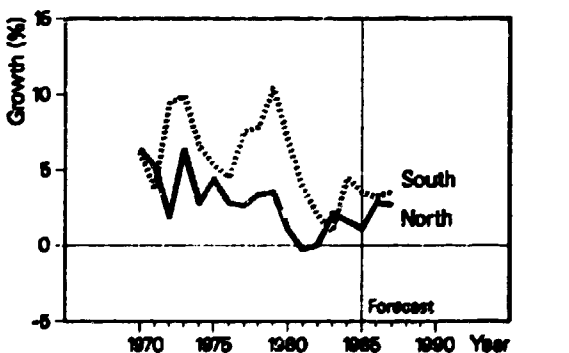
Indian Subcontinent



South-East Asia



North and South



Source: United Nations Industrial Statistics, estimates and forecasts by UNIDO/IS/GLO.

for these products grows faster than consumer incomes partly because soft drinks are heavily advertised. Production of soft drinks is undertaken mainly by domestic producers in developing countries.

Transnational corporations use bottling and distribution activities (either locally or jointly owned) that operate under licence. They produced soft drink concentrates in 30 developing countries in the mid-1970s. This output was valued at about \$2.5 billion and, for the three largest corporations, constituted one quarter of world-wide sales [36].

Beer is produced in a more limited range of developing countries, but in countries where the industry is well established, demand has grown rapidly.

Wine is produced in a few developing countries, and three countries (Algeria, Argentina and Chile) have developed exports of wine to Europe and North America. The role of transnational corporations in wine production is small, though some wine producers in Western Europe have developed production affiliates in Latin America.

The production of distilled alcoholic beverages in developing countries is mainly carried out by local firms. While transnational corporations have affiliates in a few developing countries, and have traditionally been engaged in rum production in the Caribbean countries, the trend is for the production of rum to come under local control with the nationalization of the related sugar industry. Since 1980, there has been slower growth consumption of distilled alcoholic beverages world-wide.

Trade between the North and the South in this industry represents less than 5 per cent of the total consumption of developing countries. The regions with the largest imports were Latin America and North Africa and West Asia.

(c) Long-term prospects

The long-term prospects are for further growth of the production of soft drinks in most developing countries. Consumption of soft drinks has reached a level of between 200 and 800 hectolitres per 1,000 inhabitants in developed countries, while consumption in developing countries, with the exception of some in Latin America, is less than one quarter of this level despite a warmer climate.* Production of beer can be expected to follow a similar trend.

There have been few recent developments in technology in the beverages industry. Technical co-operation is usually obtained from suppliers of machinery or through licensing or joint-venture agreements.**

3. Tobacco products (ISIC 314)

Curing tobacco leaves

Cigarettes, cigars

Smoking tobacco

*Estimates of per capita consumption of soft drinks are given in *Handbook of Industrial Statistics* (United Nations publication, Sales No. E/F/84.II.B.8).

**See also *Information Sources on the Beer and Wine Industry* (ID/190), July 1977.

(a) Short-term outlook

The output of cigarettes and other tobacco products in developing countries is expected to increase by 3.1 per cent in 1986 and 2.7 per cent in 1987.

Growth is expected to be negative in Tropical Africa and to slow down further in South-East Asia (2.8 per cent in 1986 and 2.0 per cent in 1987). Steady growth of more than 3 ½ per cent can be expected for the Indian Subcontinent. Latin America and North Africa and West Asia regions, which showed strong growth fluctuations in the last decade.

An increase in output of 1.7 per cent in 1986 and 1987 is expected in the North. However, health warnings associated with smoking, which have reduced consumption in a number of developed countries, may exert an influence that overrides this forecast.

(b) Present situation

Cigarette production is one of the first industries to be established in the industrialization process, and most developing countries already produce enough cigarettes to meet domestic demand. Many countries utilize locally grown tobacco, while cigarette paper and cigarette filters are generally imported. United Nations statistics report production of cigarette paper in only six countries: Brazil, Colombia, Indonesia, Mexico, the Republic of Korea and Turkey [39].

Production of tobacco products is not as highly concentrated as other industrial branches, with 10 developing economies*** accounting for only 63 per cent of the output of the South measured in terms of value added in 1980. In terms of physical volume, Brazil is the largest producer, accounting for almost twice as many cigarettes as the next largest producers (India, Indonesia and the Republic of Korea). While world production of cigarettes grew at a rate of 2.7 per cent per annum between 1970 and 1980, the growth of cigarette output averaged 6 per cent per annum among the eight largest developing-economy producers.

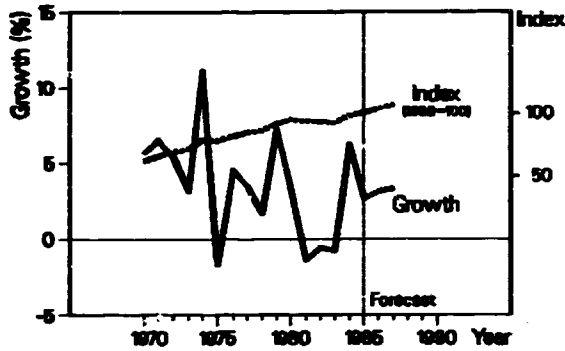
Production of cigars and smoking tobacco form a small part of the output of the South. Brazil, Cuba, Guatemala, Jamaica, Malaysia, and the Philippines are large producers of cigars, while Indonesia, the Islamic Republic of Iran, Madagascar, Thailand and Turkey produce significant quantities of smoking tobacco.

The spread of cigarette production to a very wide range of developing countries has been spurred by the competition between the four largest transnational corporations in this industry, which seek to market their own brands on a world-wide scale. One transnational corporation operates 120 tobacco plants in 52 countries and has 30 per cent of its sales in developing countries; a second manufactures cigarettes in 30 countries and operates under licence in another 31 countries; a third manufactures in 20 countries; and the fourth derives 45 per cent of its sales from international markets.

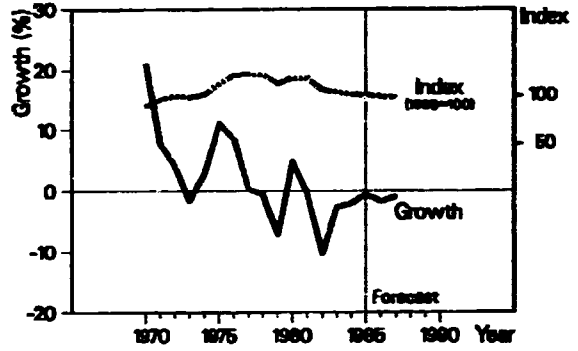
***These were Argentina, Brazil, China (Taiwan Province), India, Indonesia, Mexico, Nigeria, the Philippines, Turkey and Venezuela. Cuba is not included in the sample.

ISIC 314: Tobacco products
(Value added in constant 1980 prices)

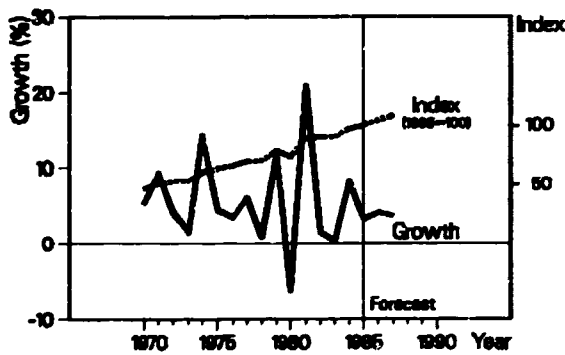
Latin America



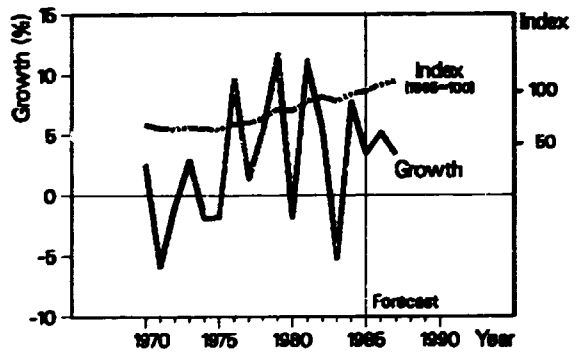
Tropical Africa



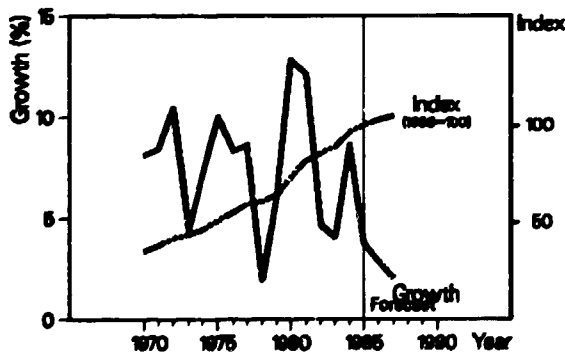
North Africa and West Asia



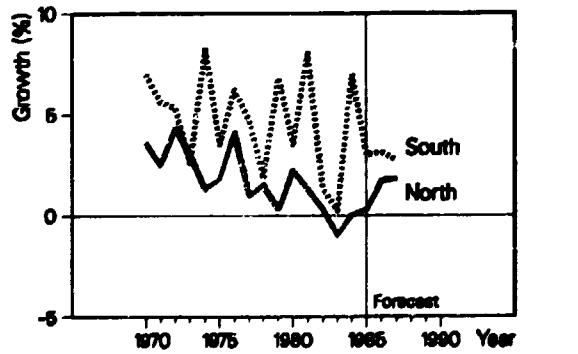
Indian Subcontinent



South-East Asia



North and South



Source: United Nations Industrial Statistics, estimates and forecasts by UNIDO/IS/GLO.

(c) *Long-term prospects*

Per capita consumption of cigarettes in developed countries was in the range 600 to 2,600 in 1980. Although per capita consumption exceeds 1,000 cigarettes in some developing countries, the more typical range is 50 to 600 cigarettes, giving some scope for further growth as a higher proportion of the population joins the market economy.

Developing countries produced 27 per cent of world output of tobacco products in 1980 and their share is expected to exceed 31 per cent in 1987. Their share of world output will continue to rise in the long-term, since little or no growth in consumption is expected in developed countries.

4. *Textiles (ISIC 321)*

- Spinning, weaving, finishing of textiles
- Household textile goods
- Knitted goods
- Carpets and rugs
- Cord, rope and twine
- Other textile products, including tyre cord

(a) *Short-term outlook*

The output of the textile industry in developing countries is expected to increase by 2.4 per cent in 1986 and 1987. This is a significant improvement over 1985 (-0.5 per cent) but not as strong as in 1983 and 1984.

The fastest output growth in 1986 and 1987 is forecast for South-East Asia (6.8 and 5.2 per cent). Slower growth, but with an increasing trend, is forecast for North Africa and West Asia (1.9 per cent), Tropical Africa (1.4 per cent) and the Indian Subcontinent (1.1 per cent). This marks a major improvement for Tropical Africa, where output appears to have overcome its long decline from 1978 to 1983. North Africa and West Asia will not be able to sustain the high growth of the early 1980s, and in Latin America output is expected to stagnate in 1986 and 1987, though this still means an improvement over the recession period of 1980-1985.

The output of the textile industry in the North is expected to increase by 2.1 per cent in 1986 and 1.6 per cent in 1987, assuming that the long and steady decline in output in OECD countries between 1973 and 1983 can be reversed through continued tight import controls. Consumer expenditure on clothing in developed countries is expected to grow by 2.5 per cent per annum, as was the case from 1973 to 1983 [40].

(b) *Present situation*

The textile industry employed 5.3 million of the 29 million workers employed in the manufacturing sector in developing countries in 1980, the largest number of any industrial branch. But with 18 per cent of total employment in the manufacturing sector, it contributed only 11 per cent of the value added. More

importantly for the South, its value added per employee was one third that of the North.

The 20 developing economies with the largest domestic markets accounted for 90 per cent of the textile output of the South in 1980, while 11* accounted for almost 76 per cent of its output. Only in a few countries which have developed large exports of textiles, does the volume of output in textiles not reflect the size of domestic demand.

Contrary to a widespread belief, developing areas, as defined by the General Agreement on Tariffs and Trade (GATT), import a higher value of textiles from the North than they export to the North. Although exports to the North increased in the 1970s, imports from the North exceeded exports by \$2.3 billion in 1984. All of this excess was accounted for by Japan's surplus in its textile trade with developing countries (\$2.55 billion in 1984). In 1982 North Africa and West Asia and Tropical Africa were net importers of textiles, worth \$4.1 billion and \$2.7 billion, respectively, while South-East Asia had a textiles trade surplus of \$3 billion.

Developing countries won an increased share of the textile imports of OECD countries between 1968 and 1973. Thereafter, import restrictions froze the share of imports from developing countries at the level of 17 per cent, while imports from China, Eastern Europe and Southern Europe increased their market share from 10 per cent to 14 per cent [40].

Although the original intention of regulating trade in textiles was to achieve an orderly expansion and liberalization of trade, the barriers faced by developing countries have been progressively increased—rather than reduced—in response to protectionist pressures by the textile industry in developed countries. The GATT review of the operations of Multi-fibre Arrangement III, which ran until the end of July 1986, indicated that restraints have become generally more extensive and more restrictive compared with the arrangements of previous years.

(c) *Long-term prospects*

The major part of the textile output of the South is supplied to huge domestic markets which are expected to grow at about the same pace as GDP. Exports are not expected to increase much more, since imports have already penetrated OECD markets to a much greater extent than in other industrial branches.

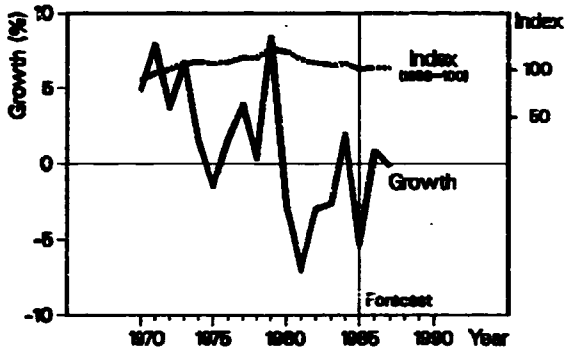
The textile industry employs a mixture of old and new equipment. There was a very high level of investment in new machinery and modernization in developed countries during the period 1966-1974, which helped the industry in OECD countries to become more competitive. Investment in labour-saving equipment continued after 1974, and is the main reason for the continuing decline in employment in the textile industry.

An important long-term policy goal for developing countries is to ensure that the textile industry becomes more efficient. As one of the oldest industries, the time is ripe for restructuring and modernization. Some

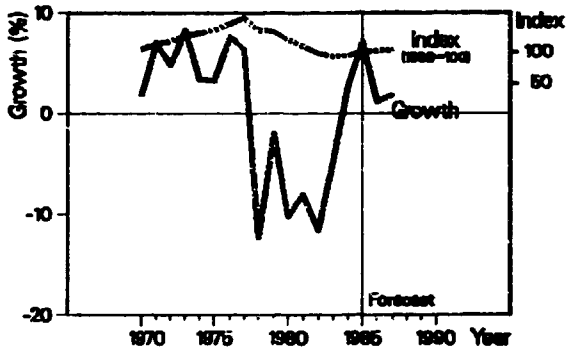
*These were Argentina, Brazil, China (Taiwan Province), Egypt, Hong Kong, India, Mexico, the Islamic Republic of Iran, Pakistan, the Republic of Korea and Turkey.

ISIC 32: Textiles
 (V₁ value added in constant 1980 prices)

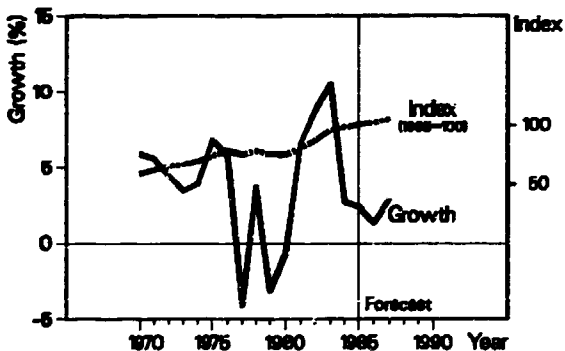
Latin America



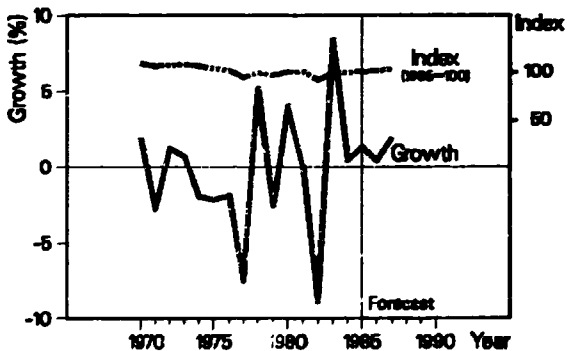
Tropical Africa



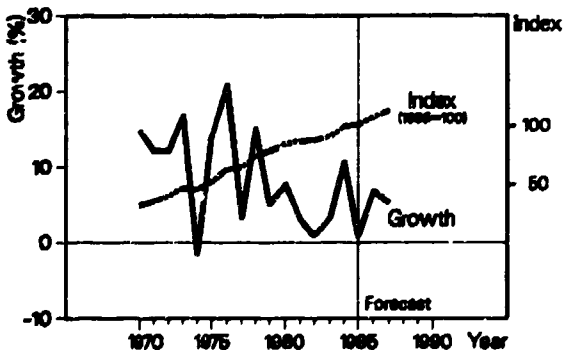
North Africa and West Asia



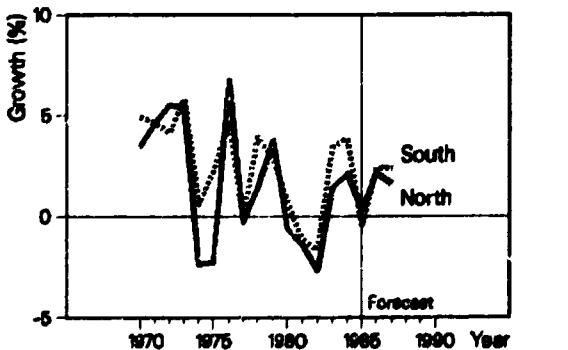
Indian Subcontinent



South-East Asia



North and South



Source: United Nations Industrial Statistics, estimates and forecasts by UNIDO/IS/GLO.

developing countries, including in particular leading exporters, have already begun to modernize their textile industry, aided in part by large-scale UNIDO technical assistance projects, which in 1984 were operating in nine developing countries.

5. Wearing apparel (ISIC 322)

(a) Short-term outlook

The output of the clothing industry in developing countries is expected to increase by 4.1 per cent in 1986 and 1987. This is above the 3.7 per cent average growth from 1978 to 1985, a period characterized by a regular cyclical pattern.

Output of clothing in 1986 and 1987 is expected to increase fastest in South-East Asia. After the -2.0 per cent drop in 1985, growth rates of 7.4 and 5.3 per cent will put the region back at the growth level of the period 1975-1984. High growth rates of around 5.6 per cent are also forecast for North Africa and West Asia, although this means a continued slow-down from the peak in 1981 and 1982. Tropical Africa is expected to maintain a growth of more than 2.0 per cent, while the recovery in Latin America is still weak (2.3 per cent and 1.0 per cent). Growth forecasts of -2.3 per cent and 5.8 per cent for the Indian Subcontinent reflect the cyclical performance of previous years.

Output of the clothing industry in developed countries is expected to increase by 1.5 per cent in 1986 and 1.2 per cent in 1987. This forecast assumes that the steady loss of markets to imports over the period up to 1984 will be reduced in 1986 and 1987.

(b) Present situation

The clothing industry, which is labour-intensive, employed 1.6 million workers in developing countries in 1980. The average value added by each worker is only half the value added by workers in this industry in the North. In 1980, developing economies* accounted for 79 per cent of the output of the South, seven of which rely on a large domestic market and three of which (Hong Kong, Mexico and the Republic of Korea) have a substantial export industry.

Developing economies have won a much higher share of developed countries' total imports of clothing (46 per cent) than of textiles (17 per cent), and China (Taiwan Province), Hong Kong and the Republic of Korea accounted for about 75 per cent of clothing exports from the South in 1984. The United States purchased almost 60 per cent of those exports, EEC 25 per cent, and Japan only 6.5 per cent (see table 2.4).

International trade in clothing has seen more dynamic growth than trade in textiles. The imports of developed countries from all sources increased from \$10.4 billion in 1973 to \$25.1 billion in 1978 and

*These were Algeria, Argentina, Brazil, China (Taiwan Province), Hong Kong, India, Mexico, the Philippines, the Republic of Korea and Thailand.

Table 2.4. Developed countries' imports of clothing from developing areas, 1981-1984

(Billions of dollars)

Country or economic grouping	1981	1982	1983	1984
Canada	0.55	0.56	0.69	0.86
Japan	1.13	1.14	0.88	1.24
United States	6.71	7.13	8.35	11.45
European Economic Community	5.69	5.23	4.78	4.99
European Free Trade Association	0.80	0.80	0.72	0.79
Total	14.88	14.86	15.42	19.33

Source: General Agreement on Tariffs and Trade, *International Trade 1984/85* (Geneva, 1985), appendix, table A.18.

\$33.3 billion in 1983. There was a further 17 per cent increase to \$39.9 billion in 1984, mainly because United States imports increased by 40 per cent. In developing countries, exports increased from \$14.9 billion in 1981 to \$19.3 billion in 1984.

Although the Multifibre Arrangement was progressively extended to clothing after 1973, imports of clothing have proved to be more difficult to regulate, and the main impact has been to encourage exporters to diversify the range of articles of clothing exported. The rent element in prices that can be charged when supplies are limited by import quotas has also been a significant factor boosting export earnings and preventing consumers from obtaining the benefits of international free trade. To some extent, increased exports of clothing have been offset by higher imports of textiles, but offshore processing in developing countries is estimated to account for no more than 10 per cent of the clothing imports of Western Europe and the United States.

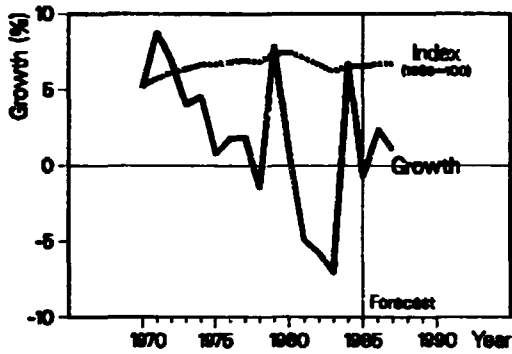
(c) Long-term prospects

The outlook for the clothing industry in most developing countries depends on the domestic market rather than on export markets. Demand is likely to increase steadily at a rate close to that of GDP, and the clothing industry will remain labour-intensive. The countries that are leading exporters have been forced to introduce the production planning and quality control associated with mass production, and over the long term an even wider range of countries can be expected to introduce such improvements in the manufacturing process.

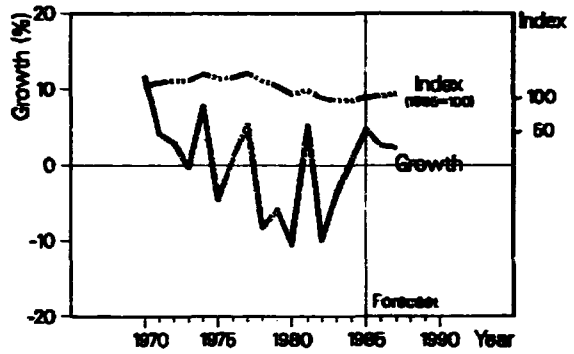
Since developing countries have already won a large share of markets for clothing in developed countries, the scope for increasing exports is limited. Consumers favour the cheaper source of supply, but the clothing industry and its trade unions have come to look on the Multifibre Arrangement as a permanent form of protection. As a result, there has been strong pressure to extend the Arrangement in July 1986. Developing countries hope that this will be the last extension of the Arrangement and that a clear commitment to liberalize world trade in clothing over a fixed period will be made.

ISIC 322: Wearing apparel
(Value added in constant 1980 prices)

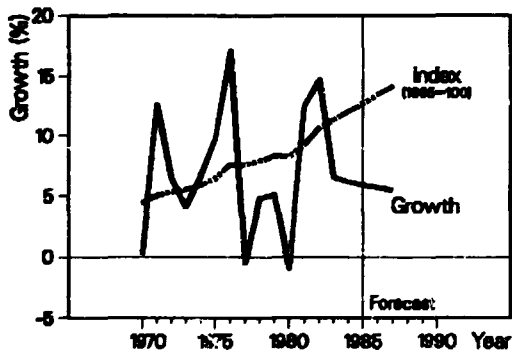
Latin America



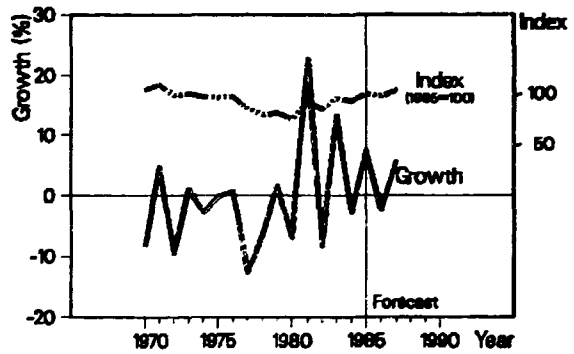
Tropical Africa



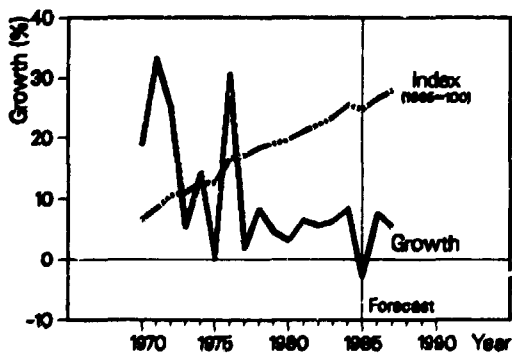
North Africa and West Asia



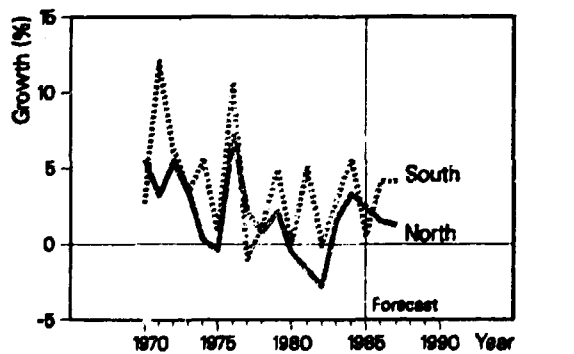
Indian Subcontinent



South-East Asia



North and South



Source: United Nations Industrial Statistics, estimates and forecasts by UNIDO/IS/GLO.

6. *Leather and fur products (ISIC 323)*

Tanneries, leather finishing
Fur dressing, dyeing industries
Products of leather and leather substitutes, except footwear

(a) *Short-term outlook*

The output of leather and leather products in developing countries is expected to increase by 2.8 per cent in 1986 and 1.7 per cent in 1987. This is a major improvement over the period of negative growth between 1978 and 1984.

Latin America, which accounts for almost 60 per cent of the leather output of the South, suffered a 30 per cent decline in output between 1978 and 1984. An increase in output of 2.0 per cent is forecast for 1986, but in 1987 it is expected to stagnate again. Rapid growth is forecast for South-East Asia (5.8 per cent and 4.7 per cent) after a slow-down in 1984 and 1985. Tropical Africa is expected to sustain the recovery of 1984 (2.8 per cent), while North Africa and West Asia continue to grow steadily though at a slower rate. For the Indian Subcontinent, the South's largest producer of hides, a further decline in output is forecast.

The output of leather and leather products in developed countries is expected to increase by 1.7 per cent in 1986 and 1.2 per cent in 1987, recovering from the fall of 1.8 per cent in 1985.

(b) *Present situation*

In 1980, 10 developing economies* produced 75 per cent of the South's output of leather and leather products. Raw material supplies limit production. The local supply of calf, goat and sheep skins increased by 1.9 per cent per annum between 1973 and 1982, and the local supply of cattle and horse hides by 1.4 per cent per annum. Some countries imported hides and skins; there was also an increase in the use of leather substitutes.

The substitution of plastic and rubber materials in the production of shoes has left an increasing proportion of leather supplies for other leather products. Leather garments (15 per cent), other personal products (11 per cent) and upholstery (5 per cent) now account for 30 per cent of the leather end-uses, compared with 15 per cent 20 years ago.

Achievements in promoting the leather industry in developing countries have been far from uniform. While some economies have developed a large and modern industry (for example, Argentina, Brazil, China (Taiwan Province), India and the Republic of Korea), others, particularly those in Africa, have yet to reach this stage. The tanning industry is so efficient in India that hides and skins can be imported from Australia and sold as finished leather to Western Europe. Brazil imports leather to supplement its own resources for leather shoe production, while the Republic of Korea has built a large export-oriented leather products industry based on imported leather.

*These were Algeria, Argentina, Brazil, China (Taiwan Province), Colombia, India, Mexico, Pakistan, the Republic of Korea and Uruguay.

There was a rapid expansion of tanning capacity in developing countries in the 1970s, and some tanneries in developed countries were closed down. There has also been a marked trend over the last 20 years for the leather products industry to relocate to developing countries where wage costs are low. The important role of developing countries as suppliers of hides and skins is one reason why the substantial relocation of the leather industry from developed to developing countries has not been opposed by leather industry interests in the North. Another reason is the high cost of complying with more stringent pollution control measures introduced for tanneries.

UNIDO has convened three Consultations on the Leather and Leather Products Industry to discuss ways to increase output of leather and improve its quality in developing countries, as well as to adapt the design of leather products to world market requirements.** The Panel of Experts established by the First Consultation has provided a forum for a regular exchange of views between representatives of the leather industry from developed and developing countries. Both the Panel and Consultation meetings have discussed possible changes in world trading arrangements that would guarantee freer access to raw material supplies and markets throughout the world, but no definite agreement has been reached.

(c) *Long-term prospects*

The long-term prospects for the leather and leather products industry in the South are favourable, particularly since most of the future increase in the world's supply of hides and skins will be in developing countries.

Leather output will, however, be constrained by the limited supply of hides and skins. Although there are opportunities for improved recovery of hides and skins in Africa and the Indian Subcontinent, the funding of a programme proposed by the Food and Agriculture Organization of the United Nations (FAO) and UNIDO to achieve this has not yet been agreed.

Developing countries will concentrate on the further development of the technological and managerial skills needed to produce leather of consistently good quality. Such advances are a precondition for increased exports of leather and leather products. The application of computer-assisted design and manufacturing systems (CAD/CAM systems) has helped to make leather and leather goods production in developed countries more efficient, and developing countries will need to improve efficiency in the industry if they are to remain competitive.

7. *Footwear (ISIC 324)*

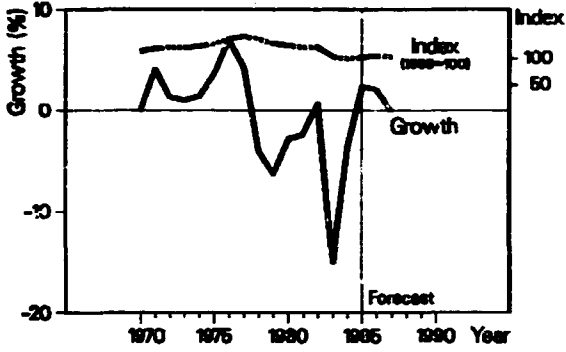
(a) *Short-term outlook*

The output of the shoe industry in developing countries is expected to increase by 3.6 per cent in 1986 and 3.1 per cent in 1987. This continues the recovery from 1982-1983.

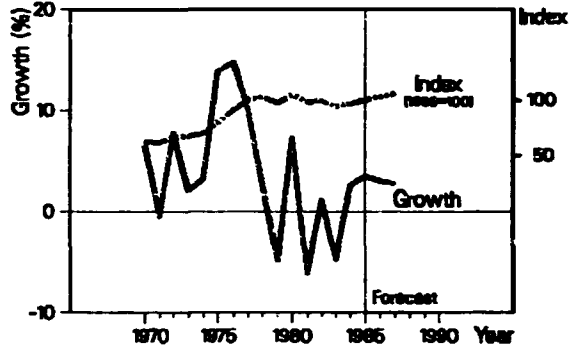
**See the reports of the First, Second and Third Consultations on the Leather and Leather Products Industry (ID/WG.358/9, ID/255 and ID/318).

ISIC 323: Leather and fur products
(Value added in constant 1980 prices)

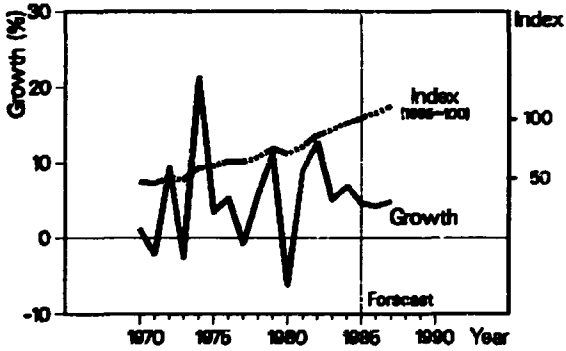
Latin America



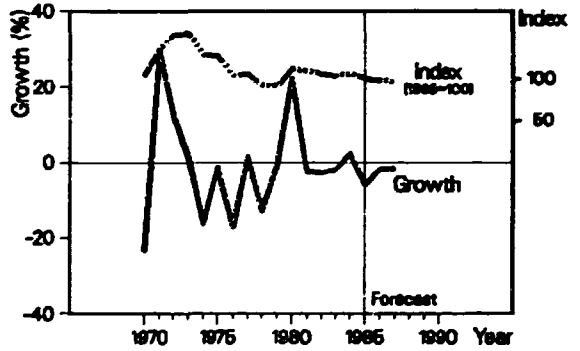
Tropical Africa



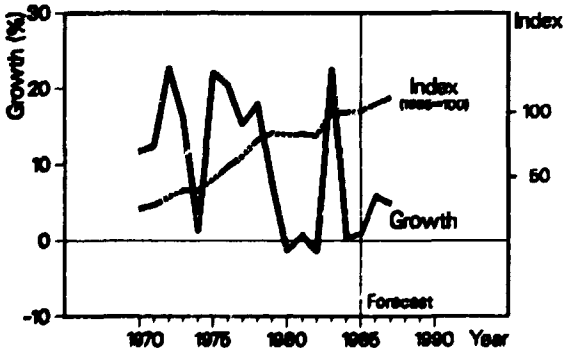
North Africa and West Asia



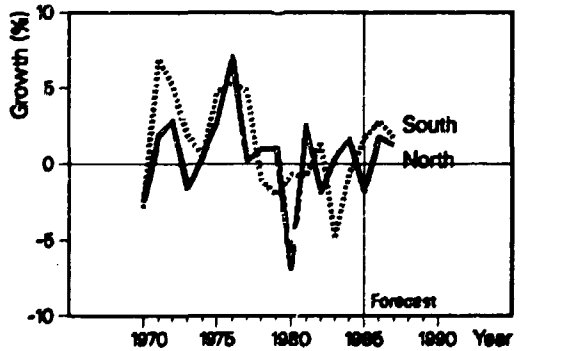
Indian Subcontinent



South-East Asia



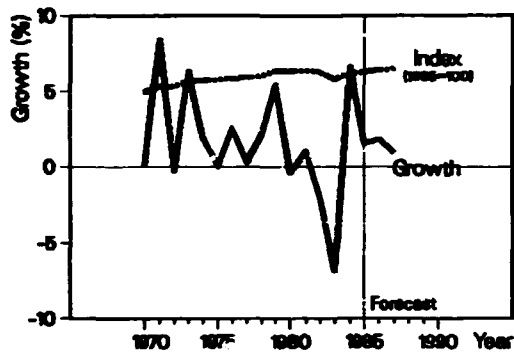
North and South



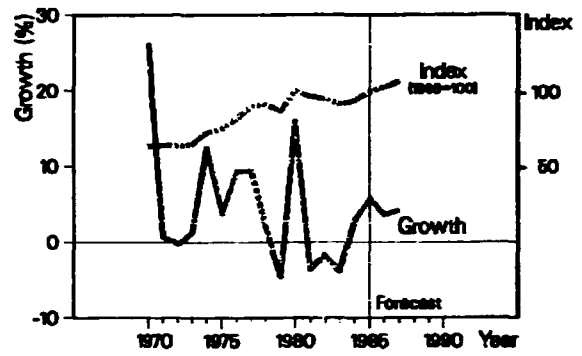
Source: United Nations Industrial Statistics, estimates and forecasts by UNIDO/IS/GLO.

ISIC 324: Footwear
(Value added in constant 1980 prices)

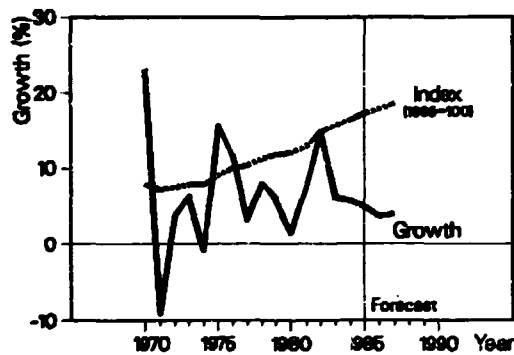
Latin America



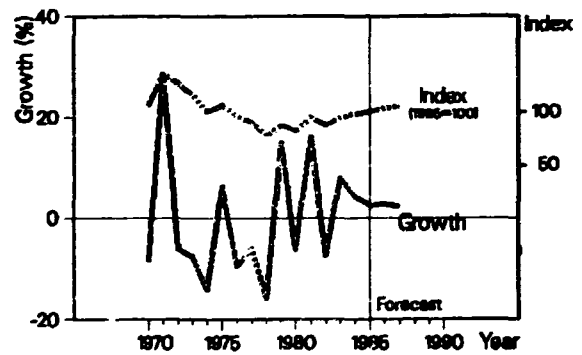
Tropical Africa



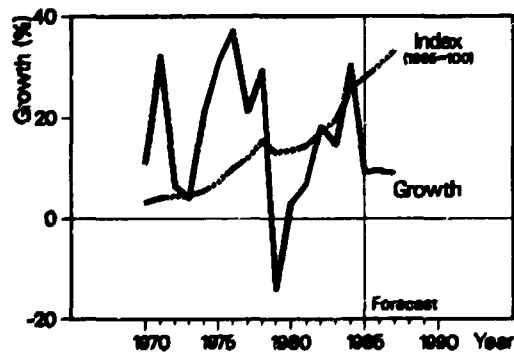
North Africa and West Asia



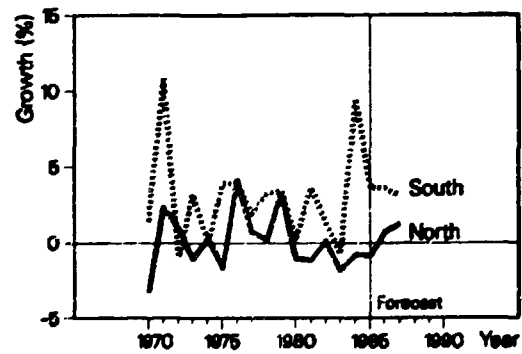
Indian Subcontinent



South-East Asia



North and South



Source: United Nations Industrial Statistics, estimates and forecasts by UNIDO/IS/GLO.

Shoe output in South-East Asia is expected to grow fastest at around 9.0 per cent, and in Latin America, after the strong recovery in 1984, output is expected to slow down again. Shoe output is forecast to grow by 3.5 and 4.1 per cent in Tropical Africa, continuing the positive trend since 1984. The Indian Subcontinent and North Africa and West Asia are forecast to grow steadily but at a slower pace.

The growth of shoe output in developed countries is expected to be 0.7 per cent in 1986 and 1.2 per cent in 1987, thus ending a period of five consecutive years of negative growth.

(b) *Present situation*

The production of shoes in the South is concentrated in a few economies: Brazil and Mexico accounted for 44 per cent of the output of the South in 1980, and 10 developing economies* produced 74 per cent of the total. In these 10 economies, the volume of output grew by 6.9 per cent per annum between 1973 and 1980. If Brazil is excluded from the total (because it substantially increased exports of shoes in this period), growth averaged 5.6 per cent. The growth of output of leather shoes has been slower, averaging 4.5 per cent per annum between 1970 and 1982.

There was no increase in total output of shoes in developed countries between 1973 and 1980. Output fell in Canada, the United States and Western Europe, where imports have supplied a growing share of the market, and output increased in the USSR and Eastern Europe. The output of leather shoes also declined slightly during this period.

Developing countries have demonstrated their international competitiveness in the shoe industry, the average price of shoes imported by developed countries from developing countries being half the average price of domestically produced shoes. Although this reflects a concentration on higher-quality shoes by domestic producers in the North, it is clear that developing countries have a marked competitive advantage in the mass production of shoes in the lower price range.

As a result, imports have won a large share of the domestic market in most developed countries: 71 per cent in the United States and 32 per cent in EEC countries, but only 4 per cent in Japan [41]. The principal suppliers are Italy, Spain, the centrally planned economies and developing economies, Brazil, China (Taiwan Province), Hong Kong and the Republic of Korea; they supplied over half of United States shoe imports in 1984.

The United States concluded orderly marketing agreements with the Republic of Korea and Taiwan Province of China between June 1977 and June 1981. But when these lapsed, imports claimed 63 per cent of the market in 1983 and 71 per cent in 1984. EEC monitors the level of shoe imports, but despite calls for protective arrangements similar to those on textiles and clothing, it has so far not yielded to protectionist pressures.

*These were Algeria, Argentina, Brazil, Chile, China (Taiwan Province), India, Mexico, the Republic of Korea, the Syrian Arab Republic and Venezuela. Cuba is not included in the sample.

(c) *Long-term prospects*

The further development of the shoe industry in developing countries is likely to focus on domestic needs and upgrading of the style and quality of shoes exported. The introduction of improved technology and greater use of material other than leather will be needed to satisfy the rapid growth of domestic demand.

The footwear industry in developed countries sees considerable scope for improving the efficiency of its operations and hence the cost disadvantage of high-cost labour. A recent study for the United States Department of Commerce attached priority to improving the technology involved in leather cutting, injection moulding, stitching, cement bottom attachings, and toe-, side- and heel-lasting operations of shoe manufacture. It suggested that use of computer-aided design, engineering and manufacturing would provide the basis for substantially automating shoe production [42].

8. *Wood and wood products (ISIC 331)*

Sawn lumber, plywood, particle board, veneers

Wooden containers

Other wood products, except furniture

(a) *Short-term outlook*

The output of wood and wood products in developing countries is expected to increase by 4.0 per cent in 1986 and by 3.9 per cent in 1987. Thus the South is expected further to improve its performance in this industry from the downturn in 1983.

The largest contribution will come from Latin America, where growth of around 4.4 per cent in 1986 and 1987 is expected, accounting for over 50 per cent of the output of the South. Faster growth is also expected on the Indian Subcontinent (5.7 per cent), which reflects its good performance since 1982. In South-East Asia growth of around 3.9 per cent is almost up to the pace achieved before the decline in 1985. Growth is expected to slow down considerably in North Africa and West Asia (1.6 per cent) and to stagnate in Tropical Africa after a short recovery in 1984 and 1985.

In developed countries the growth of output is expected to be 2.2 per cent in 1986 and 1.1 per cent in 1987.

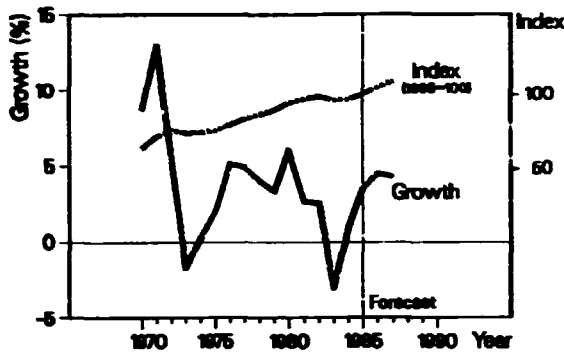
(b) *Present situation*

Developing countries use most wood for fuel. At present, the major industrial use of wood in developing countries is in the form of logs and sawn woods (70 per cent); 10 per cent is used for the production of pulp and paper, and 20 per cent for wood products such as plywood, particle board and fibreboard.

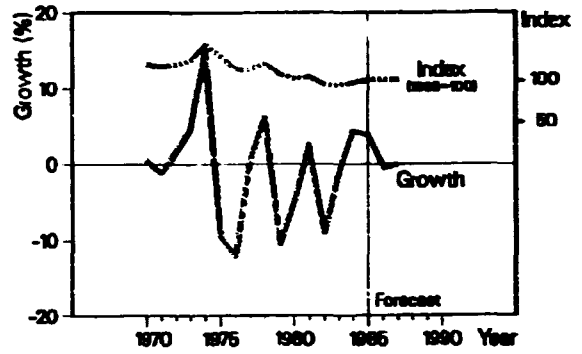
The developing countries' output of wood and wood products increased by 5.5 per cent per annum between 1970 and 1980, with the output of panel products—plywood, particle board and fibreboard—increasing faster than the output of sawn wood. This

ISC 331: Wood and wood products
(Value added in constant 1980 prices)

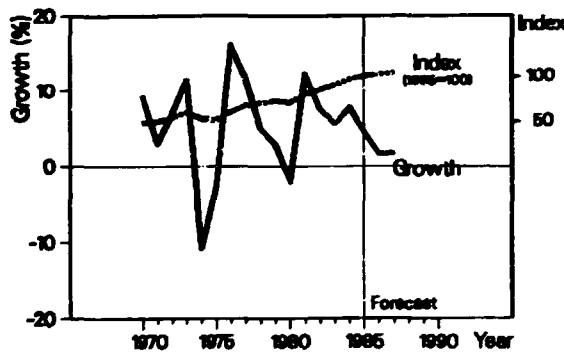
Latin America



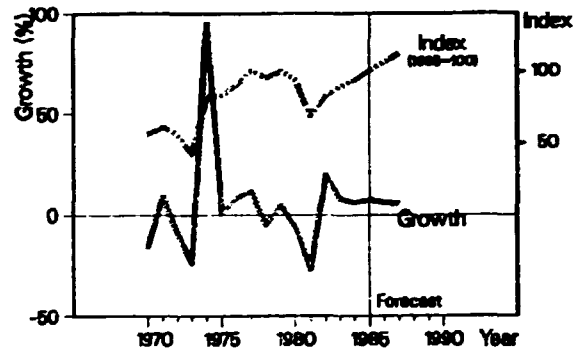
Tropical Africa



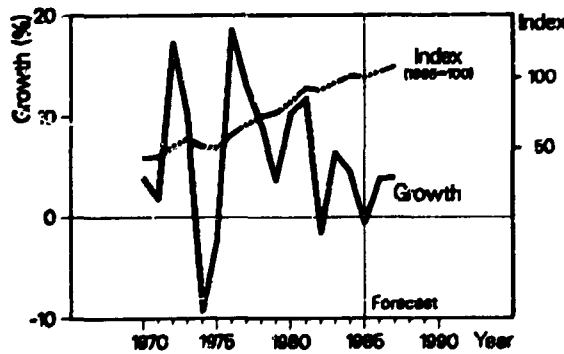
North Africa and West Asia



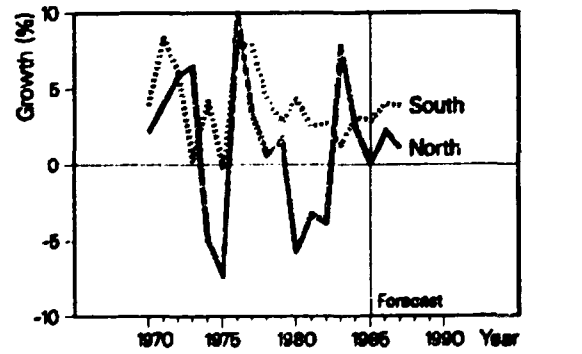
Indian Subcontinent



South-East Asia



North and South



Source: United Nations Industrial Statistics, estimates and forecasts by UNIDO/IS/GLO.

output growth is expected to continue in the future [43].

Ten developing countries accounted for 73 per cent of the output of the South in 1980. Brazil has the most diversified industry and accounted for 24 per cent of the output of the South, and India has a large wood products industry.

The developed countries' physical output of wood and wood products increased by 0.5 per cent per annum between 1970 and 1980. Output declined in the centrally planned economies and increased by 1.0 per cent per annum in the developed market economies. Output of particle board doubled, reflecting more efficient use of waste materials from saw mills.

Tariff structures and non-tariff barriers (affecting 17 per cent of wood and wood products) act as barriers to exports of hardwood products from developing countries. Western Europe's imports of hardwood plywood have been growing, and United States imports from Indonesia, Malaysia and the Philippines accounted for two thirds of hardwood plywood consumption in 1984 on a value basis [44]. Western Europe imports three times as much hardwood as hardwood plywood, and developing countries can expect to remain a principal source of that region's hardwood requirements.

Japan's imports of wood and wood products were worth \$5.3 billion in 1984. Logs represented 70 per cent of imports and wood chips 12 per cent; sawn lumber accounted for 15 per cent, and plywood and veneer for only 1 per cent. However, imports of plywood jumped from 6 million cubic metres in 1983 to 18 million cubic metres in 1984, and can be expected to rise further as nearly all South-East Asian countries have adopted a policy of banning shipments of logs and developing their own plywood industry. While China (Taiwan Province), Japan and the Republic of Korea have cut back plywood production, the countries of South-East Asia have expanded their plywood production and exports. In Indonesia, where labour-intensive production methods are used—one mill employs 3,000 instead of 150 persons in a mill of similar size in the United States—the industry has grown to 100 mills, and is still expanding.

(c) *Long-term prospects*

Developing countries have more than 50 per cent of world forest resources, yet because most of the wood harvested is used as fuel (85 per cent in 1975 and a projected 79 per cent in 2000), they accounted for only 11.8 per cent of world output of wood and wood products in 1980. FAO expects their share to rise to 17.5 per cent by the year 2000 [45].

The pattern of world consumption of softwood and hardwood is not expected to change very significantly between 1980 and 2000. About half the harvest of softwood and 45 per cent of hardwood will be used for producing pulp and paper. Sawn wood and sleepers will account for one-third of the use of softwoods and 25 per cent of hardwoods, while panels of reconstituted wood will use 8 per cent of the softwoods and 9 per cent of the hardwoods.

The wood products industry, particularly the plywood industry, is improving operating efficiency by

embracing new technologies such as electronic scanners and sensors combined with computerized controls. Veneer lathes have been improved so that they can use logs of smaller diameter and obtain higher yields. Developing countries can benefit from these new technologies in their efforts to upgrade the quality and value of their processed wood exports.

9. *Furniture and fixtures (ISIC 332)*

(a) *Short-term outlook*

The output of the furniture industry in the South is expected to increase by 3.9 per cent in 1986 and 3.7 per cent in 1987. This means a drop compared with the 5.0 per cent achieved in 1985, but is still far above the level of the recession years 1980-1983.

The growth trend mainly reflects the recovery in the output of the furniture industry in Latin America, which accounted for 70 per cent of the output of the South in 1980. High rates of growth of output are also expected in all other regions except Tropical Africa: 5.5 per cent in North Africa and West Asia, 5.2 per cent on the Indian Subcontinent and 4.5 per cent in South-East Asia, all of which are slightly less than in previous years. Tropical Africa, at 1.0 per cent, is expected to sustain the recovery which started in 1983.

The output of the furniture industry in developed countries is expected to grow by 3.7 per cent in 1986 and 3.2 per cent in 1987, continuing the recovery from the recession years of 1980-1982.

(b) *Present situation*

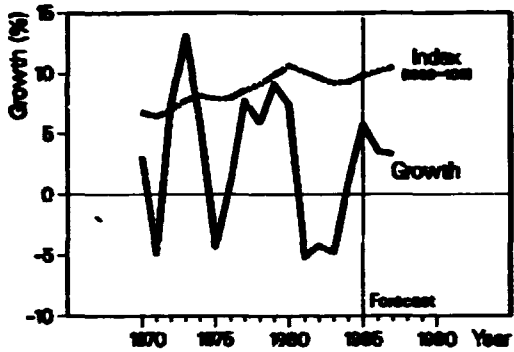
The furniture industry makes a small contribution to total manufacturing output: 1.2 per cent in the South and 1.9 per cent in the North in 1980. Output in the South is concentrated in countries with a large urban population, and in 1980 Brazil accounted for 27 per cent of the output of the South, Argentina, Mexico and Venezuela for a further 36 per cent, and India for 2 per cent.

International trade in upholstered furniture and bedding is small, but trade in wood furniture is growing rapidly. Exports of developing countries to OECD countries almost doubled between 1978 and 1981, and have continued to increase in more recent years. In 1984 the United States and Japan were the major importers; Taiwan Province of China, with exports valued at almost \$600 million, was the leading supplier to the United States.

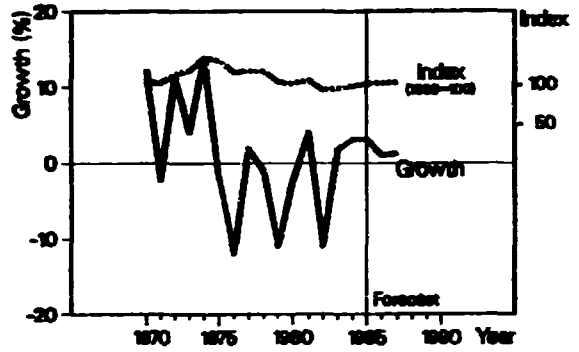
Asian exporters have been able to increase their exports because, while many furniture plants in the United States use outdated machinery, the new producers invested in automated machinery. Oak and other typical United States woods are imported for conversion into component parts of furniture, and are shipped back to the United States manufacturer for finishing and final assembly [46]. Ready-to-assemble furniture has won a larger share of the Western European market in recent years, and this trend is starting in developing countries. Indeed, most of Singapore's exports of \$50 million of furniture to the

ISIC 332: Furniture and fixtures
(Value added in constant 1980 prices)

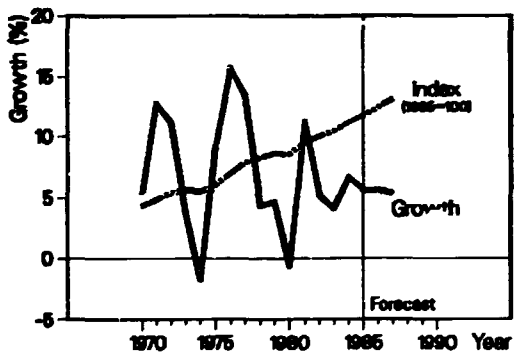
Latin America



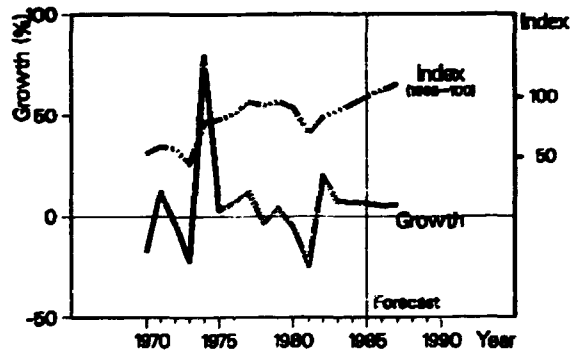
Tropical Africa



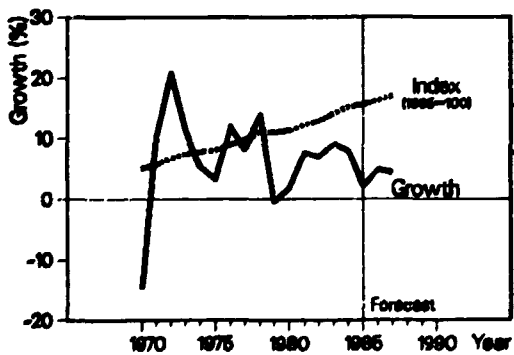
North Africa and West Asia



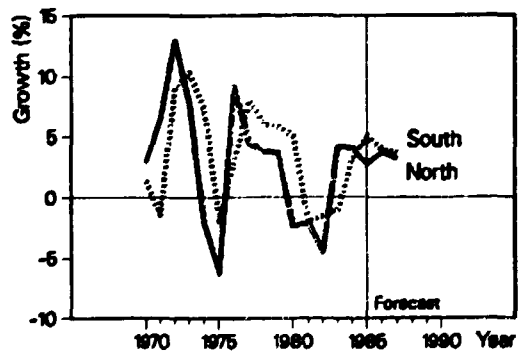
Indian Subcontinent



South-East Asia



North and South



Source: United Nations Industrial Statistics,
estimates and forecasts by UNIDO/IS/GLO.

United States in 1984 were in this form, and manufacturers in Taiwan Province of China have also begun to ship kitchen cupboards to Western Europe.

(c) *Long-term prospects*

In developing countries, demand for furniture is expected to grow faster than consumer incomes in the long term. However, as furniture is a consumer durable, demand tends to be cyclical, with purchases postponed in recession years. The main focus of the industry in developing countries is to supply the growing urban population. The market for school furniture is also important, and UNIDO has provided assistance in this field. The International Trade Centre has made a study of major import markets for wooden household furniture [47], while UNIDO has published a guide to information sources on the industry [48].

The furniture industry is becoming more international, with mass production methods lowering costs so that high transport costs can be overcome. This means that developing countries should be able to increase their exports in the long term.

10. *Paper and paper products (ISIC 341)*

Pulp, paper and paperboard

Containers and boxes of paper and paperboard

(a) *Short-term outlook*

The output of paper and paper products in developing countries is expected to increase by 5.2 per cent in 1986 and by 5.3 per cent in 1987. This continues the good performance and steady growth achieved since 1982.

For the Latin American region, which accounts for 63 per cent of the output of the South, the forecast increase in output is 4.4 per cent in 1986 and 4.6 per cent in 1987. The outlook for other developing regions is equally good. The Indian Subcontinent and South-East Asia are both forecast to grow by 6.9 per cent during 1986 and 1987, while North Africa and West Asia will grow by 4.9 per cent in 1986 and 6.0 per cent in 1987, which is significantly below the strong growth trend between 1979 and 1983. Growth forecasts of 2.5 per cent and 2.9 per cent for Tropical Africa indicate that this region is expected to have overcome the recession of 1981-1983.

The output of paper and paper products in developed countries is expected to increase by 3.0 per cent in 1986 and 1987.

(b) *Present situation*

World production of paper and paperboard in 1984 was 190 million tonnes. Developing countries consumed 21.6 million tonnes of paper and paperboard in 1984, and produced 17.2 million tonnes, or 80 per cent, of these requirements. Latin America produced

95 per cent of its requirements, the Indian Subcontinent 83 per cent, South-East Asia 69 per cent, North Africa and West Asia 56 per cent, and Tropical Africa 38 per cent. About 75 per cent of the output of the South was concentrated in nine economies,* with Brazil contributing 21 per cent, and Argentina, India and Mexico a further 32 per cent.

Wrapping paper, paperboard and other packing materials accounted for about 55 per cent of the output of developing countries in 1984, newsprint for 15 per cent, and other printing and writing paper for 30 per cent. In the nine developing economies accounting for the major share of the output of the South, demand in the period 1973 to 1980 grew by 4.0 per cent per annum for newsprint and by 6.3 per cent per annum for other printing and writing paper. In the period 1980-1984 the annual growth rate slowed to 1.2 per cent for newsprint and 3.5 per cent for other printing and writing paper. The expansion of the educational market accounts for the faster growth of demand for printing paper.

Demand for paper and paperboard in Tropical Africa increased strongly in the period 1980 to 1984, and is expected to continue to do so because of the present low level of per capita consumption and the fast-growing population. At present, Kenya, Nigeria and Zimbabwe account for almost 80 per cent of the production of the region. Kenya has expanded capacity, and Nigeria has completed one new paper mill and is finishing two others. A sharp increase in the production of the region is expected when the additional capacity is fully utilized.

Similar production increases are expected in North Africa and West Asia, where consumption of packaging and paper increased very sharply in 1984 in the two largest consuming countries, Egypt and Turkey. In Turkey, both public and private sector enterprises are modernizing existing mills and expanding capacity. In Egypt, renovation and modernization of existing mills is under way, together with an expansion of capacity to cope with growing demand which caused imports to double in 1984. Consumption is likely to grow less rapidly in the major oil-producing countries, but the impact will be small because they account for only about 20 per cent of demand in the region.

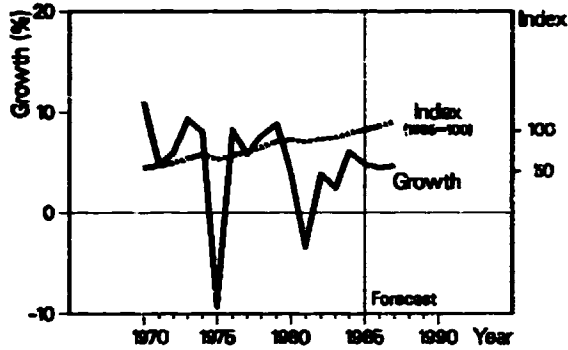
In South-East Asia the emphasis is on modernization and expanding capacity to replace imports. Indonesia, which imported 40 per cent of its requirements in 1984, completed two new newsprint plants at the end of 1985, and a large kraft paper plant and a major expansion of a paperboard mill have been planned, in addition to a new pulp mill. In the Republic of Korea, a 14 per cent increase in output in 1984 and a 5 per cent increase in 1985 is expected to be followed by a 10 per cent increase in 1986. Its increased capacity will be used to produce newsprint, paperboard and other paper, although the country will continue to depend on large imports of pulp.

In the Indian Subcontinent, the industry of India had a difficult year in 1985 because of frequent power cuts in some states and rising energy and raw material costs. A long-term programme of modernization to

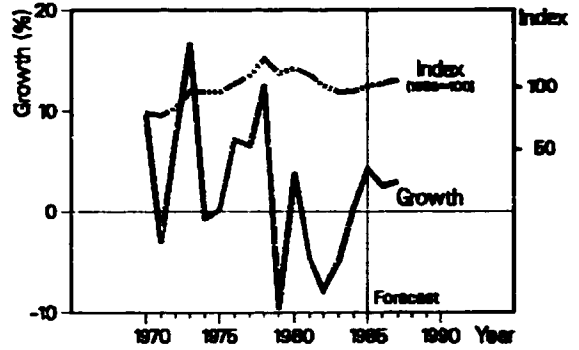
*These were Argentina, Brazil, Chile, China (Taiwan Province), India, Mexico, the Republic of Korea, Turkey and Venezuela.

ISIC 34: Paper and paper products
(Value added in constant 1980 prices)

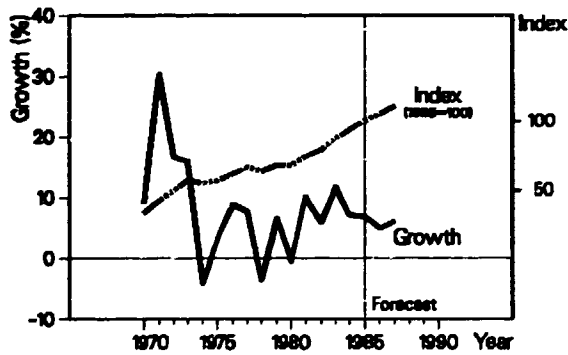
Latin America



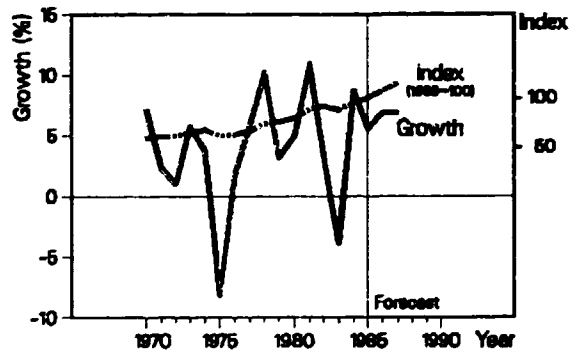
Tropical Africa



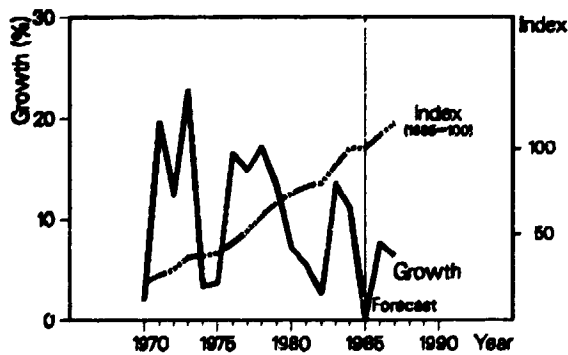
North Africa and West Asia



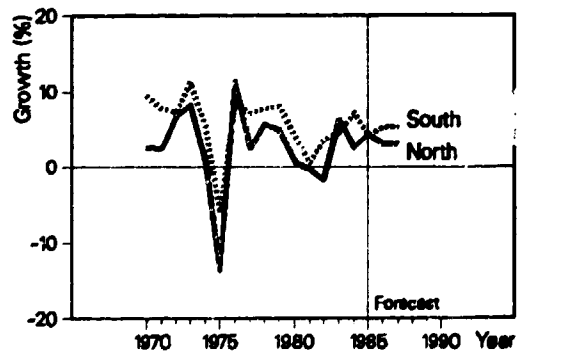
Indian Subcontinent



South-East Asia



North and South



Source: United Nations Industrial Statistics, estimates and forecasts by UNIDO/IS/GLO.

make existing mills more efficient and save energy has been launched for both large and small-scale producers. Major additions to newsprint and paperboard using bagasse and recycled paper are also planned. Pakistan imports over 40 per cent of its paper requirements and construction of a newsprint mill and 15 small paper mills are planned for the period 1986 to 1990. Bangladesh imports 35 per cent of its paper requirements.

In Latin America, paper output increased between 1980 and 1984 despite a decline in consumption. The production of Brazil increased by 9 per cent in both 1984 and 1985 and is expected to increase by 7 per cent in 1986 as a result of rising exports and falling imports. Paper and paperboard capacity is being expanded and a major increase in pulp output is under consideration, including a doubling of capacity at Aracruz Cellulose where trees are ready for pulping six to nine years after planting. Mexican output increased by 8 per cent in both 1984 and 1985 and a 5 per cent increase is projected for 1986. Newsprint production, which includes a grade of paper used for textbooks, rose 34 per cent in 1984 and 11 per cent in 1985. Paper-, paperboard- and pulp-producing capacity are being expanded.

(c) *Long-term prospects*

The outlook is for further steady growth of demand for paper and paperboard. Economic development is accompanied by a rising demand for packaging materials (half the output of the industry), and education for a fast-growing population spurs demand for writing and printing paper as well as for newsprint. Although developing countries have half of the world's forest resources, they produced only 8.2 per cent of world output of paper and paper products in 1980, a share which is expected to rise to 9.1 per cent by 1987.

The modernization of existing plants is a high priority in many countries. Additional capacity is needed, but in some countries only existing producers can afford to finance it. There may be a danger that domestic production will not be sufficient to meet rising demand in Tropical Africa and North Africa and West Asia, and imports of these regions may grow. Developing countries as a group, therefore, are likely to continue to import almost 20 per cent of their total requirements of paper and paperboard.

Improvements in technology have been introduced in the North to reduce the large quantities of energy consumed by the industry and to reduce the level of pollution, which is a major problem in this industry. Additional investment to control pollution is very expensive. Developing countries which established new plants with the latest technology can expect to be internationally competitive provided the cost of wood supplies is reasonable. The investment costs of a large pulp mill have remained constant in real terms for two decades, but have been rising fast in money terms. This means that new producers have to finance a much larger capital investment than was the case ten years ago.

11. *Printing and Publishing (ISIC 342)*

(a) *Short-term outlook*

The output of the printing and publishing industry in developing countries is expected to increase by 1.8 per cent in 1986 and 2.9 per cent in 1987.

Growth will be fastest in the Indian Subcontinent (6.5 per cent), thus continuing the good performance of 1980 to 1985. North Africa and West Asia will also maintain a steady growth in this period, though at a lower level of around 4.4 per cent. South-East Asia is expected to recover strongly from the 1.0 per cent growth of 1985 to reach about 5.5 per cent in 1986-1987. In Tropical Africa this sector has undergone strong growth fluctuations in the past and is forecast to grow by 1.8 per cent in 1986 and 3.8 per cent in 1987. The output of Latin America has stagnated since the beginning of the 1970s, and there is no indication that higher growth than in 1984 and 1985 (around 1.5 per cent) can be achieved.

In developed countries, the output of the printing and publishing industry is expected to increase by 3.3 per cent in 1986 and 2.4 per cent in 1987. This follows the sudden drop in 1985 which interrupted the recovery that started in 1983.

(b) *Present situation*

The printing and publishing industry contributes 2.5 per cent of total manufacturing output in the South and 3.7 per cent in the North. In a typical developed country, the main output of printing and publishing is divided between general printing and publishing (60 per cent), newspaper and periodicals (30 per cent) and stationery (10 per cent). In developing countries the contribution of newspaper publication is much higher.

Ten developing economies* produced 78 per cent of the printing and publishing output of the South in 1980. The consumption of newsprint and other printing and writing paper increased by 4.0 per cent per annum from 1972 to 1974 and by 5.5 per cent per annum from 1979 to 1981, with the rate of growth in the use of newsprint and paper being more than double the rate of growth of printing and publishing output.

(c) *Long-term prospects*

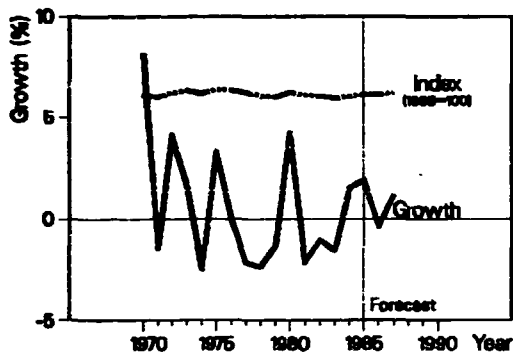
The long-term prospects for the printing and publishing industry in developing countries are excellent, since per capita consumption of newsprint and other printing and writing paper is still less than 10 per cent of the per capita consumption in developed countries.

The publishing and printing industry is in the midst of its most important technological revolution in the last 100 years. Improvements in technology will both favour and compete with other means of communication. In developed countries, the labour-intensive job of

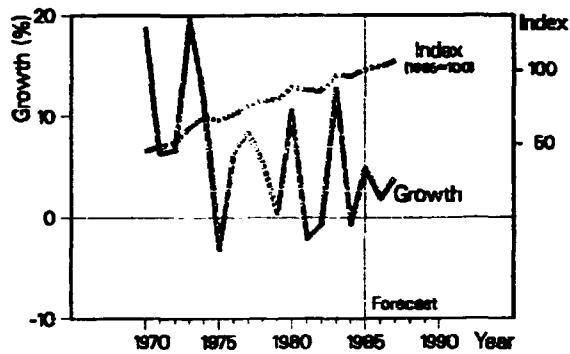
*These were Argentina, Brazil, Chile, China (Taiwan Province), Colombia, Hong Kong, India, Malaysia, Mexico and the Republic of Korea.

ISIC 342: Printing and publishing
(Value added in constant 1980 prices)

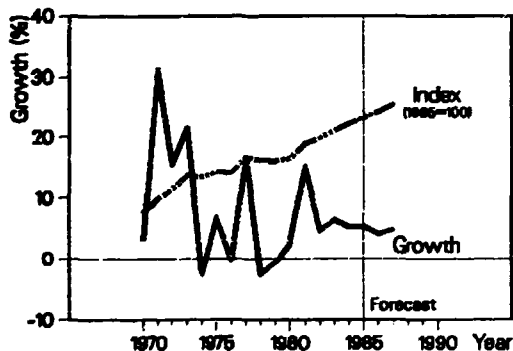
Latin America



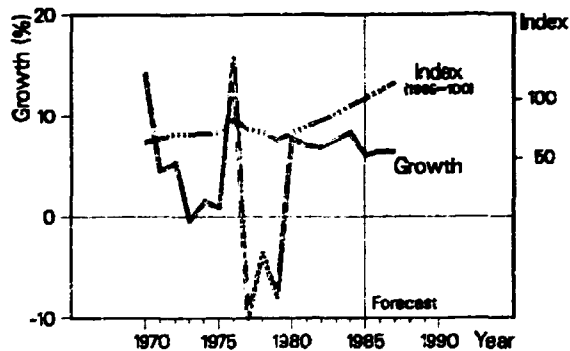
Tropical Africa



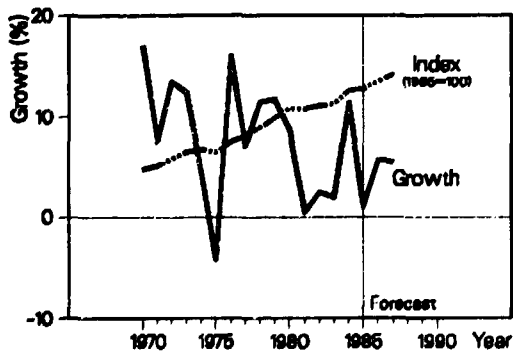
North Africa and West Asia



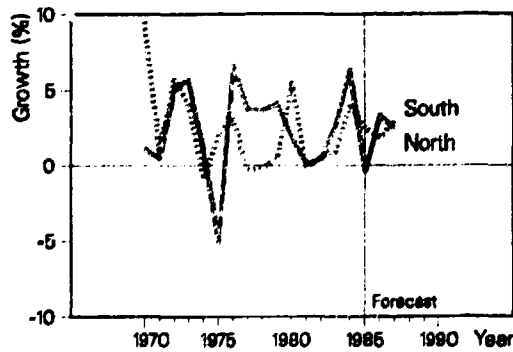
Indian Subcontinent



South-East Asia



North and South



Source: United Nations Industrial Statistics, estimates and forecasts by UNIDO/IS/GLO.

setting up type has been replaced by computerized typesetting or photo-typesetting systems; printing machines have been developed which are fully automated and require very few manual controls; and modern communications systems via satellite make the simultaneous publication of a text in different geographical centres more economic than shipping the newspaper or magazine.

Developing countries have only just begun to be affected by this revolution, which is bound to raise the efficiency of printing and publishing as new technology is applied. Only book-publishing is likely to remain an activity in which labour costs are important and one in which developing countries can maintain a competitive advantage.

12. Industrial chemicals (ISIC 351)

Basic industrial chemicals
Fertilizers and pesticides
Synthetic resins

(a) Short-term outlook

The output of industrial chemicals in developing countries is expected to increase by almost 7.0 per cent in 1986 and 1987. This partly reflects the favourable impact of cheaper intermediate inputs through lower oil prices, although growth is at a lower level than in the 1970s.

The growth of output in 1986 and 1987 is expected to be 8.4 per cent per annum in the Indian Sub-continent, where petrochemical and fertilizer plants have been established to utilize the growing output of oil and natural gas. Despite 8.9 and 7.8 per cent growth in 1986 and 1987 for South-East Asia, the growth rates of the region appear to be on a downward trend in this industry. The same seems to be the case for North Africa and West Asia* (6.2 per cent), Latin America (5.6 per cent) and Tropical Africa (3.7 per cent), although all of them have recently had to overcome recessions.

The output of industrial chemicals in developed countries is expected to increase by 5.0 per cent in 1986 and 3.8 per cent in 1987, sustaining the recovery which started in 1983.

(b) Present situation

The industrial chemicals sector manufactures a very broad range of products and is one of the largest industrial sectors. Its contribution to total manufacturing output is 7 per cent in Italy, 6 per cent in Germany, Federal Republic of, 5.5 per cent in France, 5 per cent in the United States and 4 per cent in Japan. In developing countries, it contributes 7.5 per cent in India, 6 per cent in the Republic of Korea and Mexico, 5 per cent in Brazil and 4 per cent in Argentina.

*The forecast for North Africa and West Asia does not take into account the large increase in the production of petrochemicals from new plants in Saudi Arabia during the period 1985 to 1987, since Saudi Arabia is excluded from the sample of countries from which the output of the region is estimated.

This sector comprises eight major branches of the chemical industry—organic chemicals (mainly petrochemicals), chloralkalies, other inorganic chemicals, fertilizers, pesticides, plastics, synthetic fibres and synthetic rubber. In a typical developed country, organic and inorganic chemicals account for 60 per cent of the output of the industry, fertilizers and pesticides for 25 per cent, and plastics, synthetic fibres and synthetic rubber for the remaining 15 per cent. In a typical developing country, the contribution of the fertilizer industry is usually larger, the contribution of basic chemicals depending on the stage reached in the development of the petrochemical industry.

The industrial chemicals sector is at a very early stage of development in most developing countries. In 1980 production was concentrated in 10 developing economies,** which accounted for over 87 per cent of the output of the South. While most of these 10 economies produced fertilizers, sulphuric acid, caustic soda and synthetic fibres in 1980, only a few produced ethylene, the main building-block of the petrochemical industry. This situation is reflected in the high level of imports of chemicals into developing countries. The largest and fastest-growing group of imported products are plastics (\$5.1 billion in 1983) and man-made fibres (\$2.1 billion in 1983). Fertilizer imports declined between 1979 and 1983 as developing countries became more self-sufficient, while imports of organic and inorganic chemicals continued to grow slowly.

UNIDO monitors world production capacity, world output and world demand by maintaining data bases for 23 major petrochemical products.*** Demand for petrochemicals in developing countries continued to grow rapidly during the period 1980-1984, despite the recession. In this four-year period, demand for the five major thermoplastics increased by almost 50 per cent and demand for ethylene by a similar amount. Demand for methanol and benzene also increased by almost 50 per cent. The long-term outlook is for further rapid growth in demand that will absorb most of the increase in capacity to produce petrochemicals planned to come on stream before 1990.

In developing countries there has been a very large expansion of capacity to produce ethylene from 2.8 million tonnes in 1980 to 6.8 million tonnes in 1985. Capacity is expected to reach 9.6 million tonnes in 1990, more than three times the 1980 level.**** The largest increase was in Saudi Arabia, where three export-oriented plants were brought on stream in 1985. The new ethylene capacity is matched with downstream plants that produce polyethylene and other ethylene derivatives.

In Saudi Arabia, over 3 million tonnes of ethylene-based derivatives will be produced. Taken together with the 2 million tonnes of methane-based products

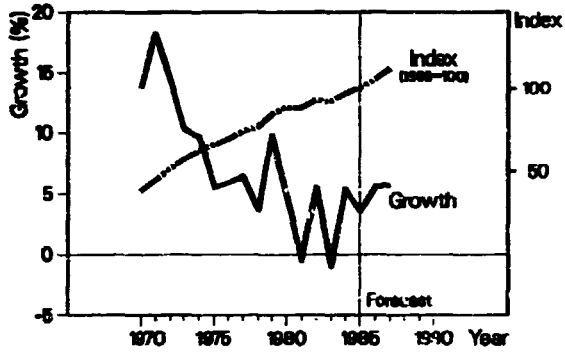
**These were Argentina, Brazil, China (Taiwan Province), India, Mexico, Pakistan, the Philippines, the Republic of Korea, Turkey and Venezuela.

***See "Current world situation in petrochemicals" (UNIDO/PC.126), prepared for the Third Consultation on the Petrochemical Industry.

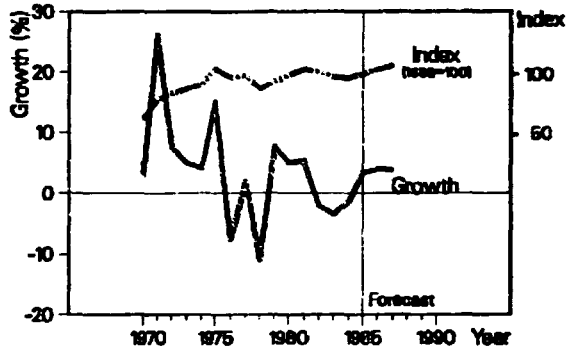
****This estimate excludes six major ethylene complexes that were planned in the early 1980s but have been postponed, so that they cannot be completed by 1990. The locations of the plants (with their capacity in thousands of tonnes) are as follows: Algeria (500), Indonesia (356), Kuwait (350), Mexico (500), the Philippines (225) and the United Arab Emirates (450).

SIC 351 Industrial chemicals
(Value added in constant 1980 prices)

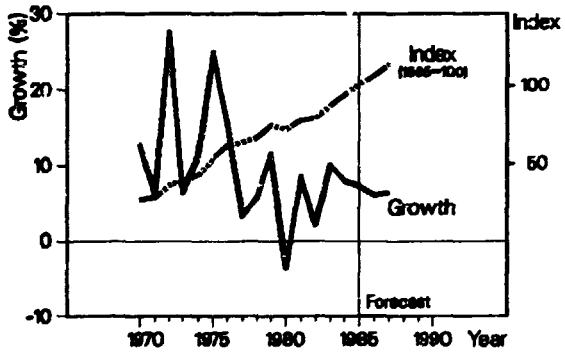
Latin America



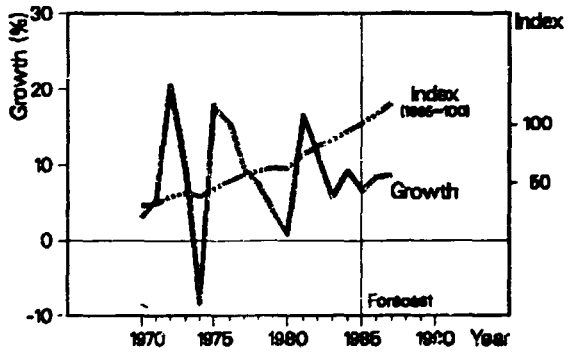
Tropical Africa



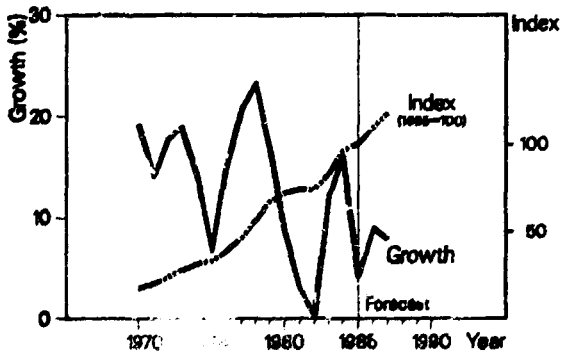
North Africa and West Asia



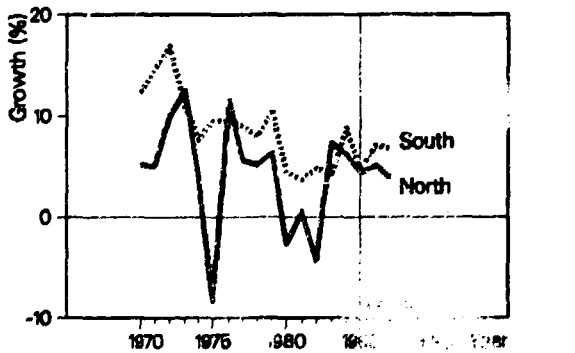
Indian Subcontinent



South-East Asia



North and South



Source: United Nations Industrial Statistics: estimates and forecasts by UNIDO/IS/GUL

produced in three methanol plants, Saudi Arabia's exports of chemical products were scheduled (at 1985 prices) to reach \$4 billion when all plants are at full production. More than \$12 billion was invested in the petrochemical plants and a much larger sum in the associated infrastructure and gas-gathering systems. The plants utilize the associated gas and gas liquids derived from crude-oil production, and they are viewed as a major step in diversifying the country's economic base and increasing the value-added of its natural resources [49].

When the Saudi Arabian plants were planned, the consensus view was that oil would remain in short supply and that the dollar price would continue to increase in real terms. The fall in the price of crude oil from \$40 per barrel when the joint-venture contracts were signed in 1979 to less than 50 per cent of this level has reduced some of the cost advantage of the plants. But since the plants were built in a period when the dollar was strong and the plant construction and equipment markets were weak, capital costs were kept to a minimum. The plants are expected to be strong competitors in the markets of Asia, but less strong in markets such as those of Western Europe [50].

The developing countries made rapid progress in the fertilizer industry between 1980 and 1984. Estimates prepared by the UNIDO/FAO/World Bank Working Group on Fertilizer [51] show that whereas demand for nitrogenous fertilizers increased by 25 per cent in this period, production increased by 60 per cent; as a result, dependence on imported fertilizers fell from 28 per cent to 12 per cent. For phosphate fertilizers, demand increased by 7 per cent and production by 28 per cent between 1980 and 1984, and dependence on imports fell from 22 per cent to 6 per cent.

In 1986 and 1987, developing countries will remain small net importers, supplying nearly 90 per cent of their requirements for nitrogen fertilizer and over 95 per cent of their requirements for phosphate fertilizer; domestic supplies of potash will meet 25 per cent of needs by 1987.

The consumption of synthetic fibres (mainly polyester, polyamide (nylon) and acrylic fibres) increased more than threefold in developing countries between 1971 and 1978. By 1980, consumption of synthetic fibres at the mill level accounted for 25 per cent of total fibre consumption, compared with 42 per cent in developed countries. Growth was particularly rapid in South-East Asia, where part of the increased consumption of synthetic fibres was exported as textiles and clothing. In this period, cellulosic fibres lost part of their share of the fibres market in both developing and developed countries.

Synthetic rubber was produced in six developing countries in 1980. Demand for synthetic rubber is mainly for the production of truck, bus, and bicycle tyres (see rubber products below). Demand in the eight developing countries that were net consumers increased by 8.5 per cent per annum between 1973 and 1980. The prospect is for demand to continue to grow rapidly in the 1980s as the stock of motor vehicles builds up and more vehicles are manufactured locally or assembled in developing countries.

UNIDO has had three Consultations on the Petrochemical Industry, in 1979, 1981 and 1985,* with the focus on the huge increase in capacity in developing countries and licencing agreements and the transfer of technology. Other key items discussed were long-term marketing arrangements required to accommodate the increased output in world markets and ways to plan future ventures so as to make optimum use of the oil and gas resources of oil-producing developing countries and the markets of other developing countries. There have also been four Consultations on the fertilizer industry,** focusing on guidelines for establishing the required infrastructure, model forms of contracts and ways to reduce capital costs of fertilizer plants. Within the framework of these Consultations UNIDO has also examined the viability of mini-fertilizer plants and developed a programme for South-South co-operation in the industry.

(c) Long-term prospects

As a country industrializes, it requires a greater range of chemicals as well as a higher level of output of industrial chemicals. Demand for industrial chemicals is related to the general level of economic activity. Demand for basic organic chemicals depends on the demand for plastics, synthetic fibres, synthetic rubber and other chemical uses. The demand for inorganic chemicals depends on the level of a wide range of industries including pulp and paper, iron and steel production and non-ferrous metals. Therefore the long-term outlook for this industry in a particular country depends both on the general level of industrial activity and the various rates of growth expected in the different industries that are end-users of industrial chemicals.

There seem to be good prospects for further rapid growth of petro-chemical output in developing countries. Whereas consumption of plastics, synthetic fibres and synthetic rubber in developed countries is expected to grow at between 3 per cent and 4 per cent per annum, the outlook in developing countries is for growth at twice that rate. The faster growth in end-uses means faster growth of demand for organic chemicals, and the demand for inorganic chemicals can be expected to grow at a similar rate.

The outlook is also for continued rapid growth in the production of fertilizers and pesticides, at between 6 per cent and 7 per cent per annum. For nitrogenous and phosphatic fertilizers and potash (which is used on only a small scale in developing countries), rapid growth is also expected.

The much faster rate of growth of demand and output in developing countries will itself ensure that they produce a much higher share of total world output by 1990. The extent to which the share of developing countries will benefit by an increased volume of exports of fertilizers and petrochemicals to the North is likely to be less than was expected in the early 1980s. Some plans to increase production capacity

*See reports of the First, Second and Third Consultations on the Petrochemical Industry (ID/227, ID/273 and ID/340).

**See reports of the First, Second, Third and Fourth Consultations on the Fertilizer Industry (ID/G.242/3/Rev.1, ID/221, ID/260 and ID/314).

in developing countries have been postponed because of world-wide excess capacity in basic chemicals. Now that oil prices have fallen to below the 1979 level, the incentive to build new plants based on low energy and low raw material costs will be less powerful. Developing countries, like transnational corporations in the period 1980-1985, can be expected to give more emphasis to producing downstream products with higher value added content.

The technology of producing petrochemicals and fertilizers is steadily being improved. The main focus of attention in the 1980s has been on saving energy and developing improved downstream products such as linear low-density polyethylene and engineering plastics ([52], [53]). The discussion on research and development at the Third UNIDO Consultation on the Petrochemical Industry, recognized the need for developing countries to play a more important role in these technological advances.

13. Other chemical products (ISIC 352)

Paints, varnishes, lacquers

Drugs, medicines

Soaps, detergents, perfumes, cosmetics, essential oils

Explosives

(a) Short-term outlook

The output of other chemical products in developing countries is expected to increase by about 5.9 per cent in 1986 and 1987, which is approximately the average achieved between 1977 and 1982.

Output in Latin America is forecast to increase by 6.0 per cent in 1986 and 6.4 per cent in 1987, maintaining the high growth achieved after the recession in 1983. Output is expected to grow faster in South-East Asia (7.9 per cent and 6.7 per cent), but the growth rates are decreasing. There have also been slower growth trends since 1980 in North Africa and West Asia, where 3.9 per cent growth is forecast for 1986 and 4.5 per cent for 1987. In the Indian Subcontinent 5.3 per cent and 6.0 per cent growth will continue the recovery from the 1982 recession. Recovery from the 1983 recession remains weak only in Tropical Africa, with growth forecasts of 0.6 per cent and 1.0 per cent. Output in this region could be considerably higher than forecast if the past level of dependence on imports were reduced.

The output of other chemical products in the North is expected to grow by 4.9 per cent in 1986 and 4.1 per cent in 1987, continuing the recovery from the 1982 recession.

(b) Present situation

In 1980 ten developing economies* accounted for 74 per cent of the South's output of other chemical products, Brazil accounting for 35 per cent and

*These were Argentina, Brazil, China (Taiwan Province), India, Mexico, Nigeria, the Republic of Korea, Thailand, Turkey and Venezuela.

Argentina and Mexico together for a further 20 per cent. Experience suggests that output in this sector grows at double the long-term rate of growth in the first phase of development when imports are replaced by local production, but then slows down.

Developing countries produced 75 per cent of their requirements of finished drugs in 1980, compared with 50 per cent in 1960 [54], and most produce their domestic requirements of paints, varnishes, soaps and washing powder. Production of detergents and explosives is confined to those countries with a broad-based chemical industry.

Developing countries increased their imports of other chemical products from \$6.8 billion in 1980 to \$9.1 billion in 1983, imports of drugs and medicines increasing by 50 per cent in this period to a level of \$5.1 billion in 1983. Another estimate by OECD for the year 1980 sets developing countries' imports of finished drugs at a value of \$2.75 billion and imports of drug intermediates at \$1.7 billion.

The pharmaceutical industry accounted for between 25 per cent and 55 per cent of the output of the other chemical products industry in the 10 economies that produced 80 per cent of the output of the South in 1980. Its contribution was 58 per cent in Brazil, 54 per cent in the Republic of Korea, 57 per cent in Colombia and 49 per cent in the Philippines. It was 27 per cent in India, where the industry has reached an advanced stage of development, because substantial production of paints, soap, washing powder and detergents is needed for the large population.

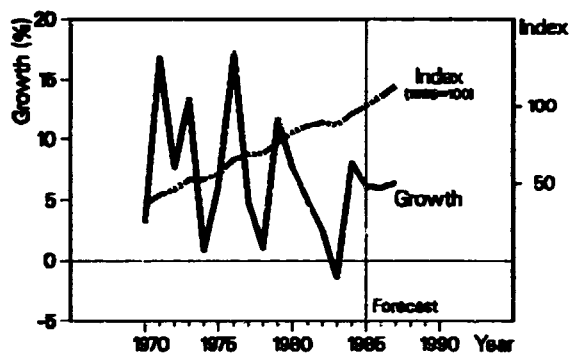
The world-wide development of the pharmaceutical industry is controlled mainly by transnational corporations. The United Nations Centre on Transnational Corporations found that 100 firms accounted for 90 per cent of total world output of pharmaceuticals in 1977. OECD estimated that the top 25 firms accounted for 50 per cent of world output in 1982, and the top 50 for two thirds. Transnational corporations supplied 50 per cent of the developing countries' consumption of pharmaceuticals in 1980 from affiliated firms located in developing countries and a further 25 per cent through direct exports. Only 25 per cent of consumption was supplied by locally owned companies.

The pharmaceutical industry is research-intensive and production of the basic ingredients of most specialized drugs is undertaken by one to four producers. Production is initially protected by patents as well as the technical complexity of the manufacturing process. To start production, a new producer usually requires a licence from the owner of the manufacturing process. For this reason most developing countries still rely heavily on imports of basic ingredients of drugs.

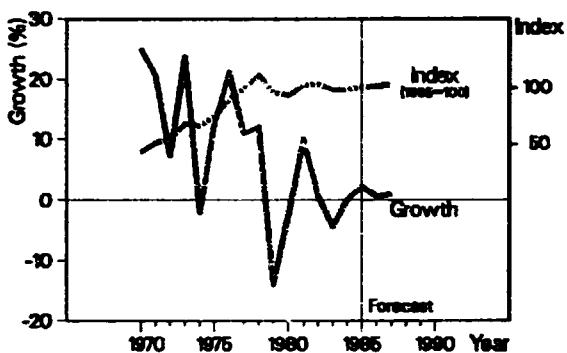
Another major characteristic of the industry is the branding of formulated products with names which do not reflect the generic name of the drug or drugs included in the formulation. The brand names of formulated drugs often proves to be an additional barrier to entry by new producers. Most developing countries formulate a limited range of drugs, but a few countries formulate a wide range. WHO has drawn up a list of almost 300 essential drugs listed by generic names [55], and UNIDO has selected 26 of these as suitable and warranting a high priority for local production in developing countries.

ISIC 352: Other chemical products
(Value added in constant 1980 prices)

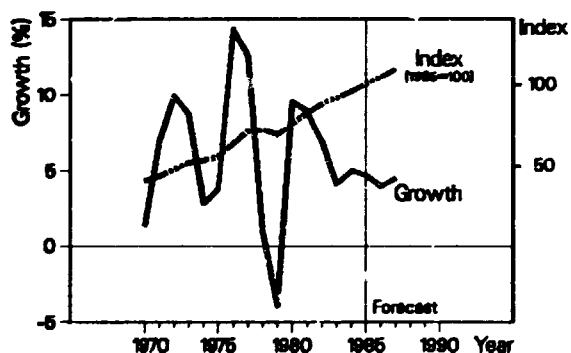
Latin America



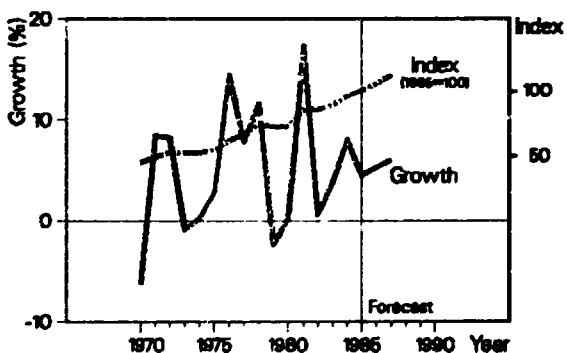
Tropical Africa



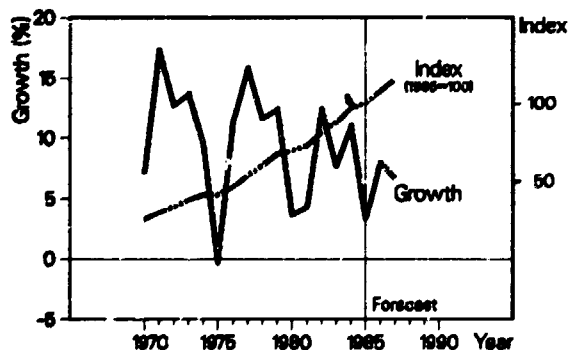
North Africa and West Asia



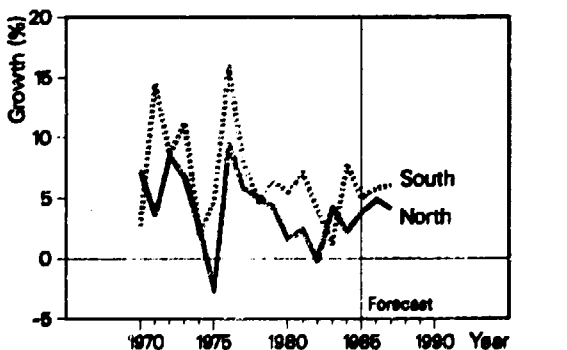
Indian Subcontinent



South-East Asia



North and South



Source: United Nations Industrial Statistics, estimates and forecasts by UNIDO/IS/GLO.

A few developing countries have attempted to rationalize the excessive number of formulations (often running into thousands) offered to the public by competing suppliers. The adoption of a more limited list, concentrating on the generic names of drugs, can be enforced by a drug screening and registration authority and by a centralized buying and control office. In a few developing countries, bulk buying has helped to overcome the practice of charging such a high price for intermediates that local production of the bulk drugs is more expensive than importing it.

UNIDO technical assistance has aimed at strengthening the capabilities of developing countries in the pharmaceutical industry. Countries have been advised to concentrate on the production of drugs essential to their local health care programmes, and they have been assisted in starting production of selected essential drugs on a pilot or limited scale. UNIDO has also provided assistance for the production of vaccines and for industrial-scale production based on traditional medicinal plants.

UNIDO has a large programme of technical assistance to the pharmaceutical industry, and currently eight developing countries are being assisted in the industrial utilization of medicinal and aromatic plants, including the establishment of pilot production facilities in some countries. It is assisting developing countries in the transfer of technology for production in bulk of selected essential drugs, has inaugurated a multi-purpose plant for production of essential synthetic drugs in Cuba, and is considering four similar projects in other countries. UNIDO has assisted in the expansion of a plant that manufactures an anti-malarial drug in India, and established a pilot demonstration plant in Guinea for the production of oral rehydration salts and intravenous fluids that is also under consideration for other African countries. A pilot demonstration plant for vaccine production is planned for several African countries, and a sub-regional research centre for biotechnology and genetic engineering is planned for the Latin American regions.

The First Consultation on the Pharmaceutical Industry considered the pricing and availability of intermediates and bulk drugs, contractual arrangements for the production of drugs, and the transfer of technology for the manufacture of 26 essential drugs. To follow up the recommendations of the Consultation, UNIDO established a committee of experts on pharmaceuticals, examined various contractual arrangements for the transfer of technology in the industry, and developed a directory of sources of supply of the 26 essential drugs identified by UNIDO in co-operation with the World Health Organization. The Second Consultation on the Pharmaceutical Industry discussed two new issues, namely the development of drugs based on medicinal plants and biologicals, including the production of vaccines. As follow-up activities, a directory of medicinal plants used as therapeutic agents is being compiled, and UNIDO is assisting developing countries in considering the steps required progressively to manufacture local vaccines and sera for both human and veterinary uses.*

*See the reports of the First and Second Consultations on the Pharmaceutical Industry (ID/259 and ID/331).

(c) Long-term prospects

This industry consists of two parts. The first, slow-growing part produces paints, soaps, detergents etc., is relatively easy to enter and will be developed by most developing countries. The second part, the pharmaceutical industry, has an above average rate of growth; it is a high technology industry and requires the infrastructure of a broadly based chemical industry.

Only a limited number of developing countries can undertake local production of the active ingredients of drugs as well as their local formulation. The general view within the industry is that at this stage of the production process, economies of scale are of real importance. These factors favour centralized large-scale production in the parent country or in a limited number of countries.

Research is generally the most centralized activity in a transnational pharmaceutical company. The main centre of research is normally in the firm's country of origin, and other important establishments are located in countries with a proven record of success in innovation. In the long term, more developing countries can expect to be selected by transnational corporations as centres for production and research and development. Their case is particularly strong for drugs used to combat diseases prevalent only in developing countries.

14. Petroleum refineries (ISIC 353)

Gasoline
Fuel oils
Lubricating oils and greases

(a) Short-term outlook

The output of the petroleum refining industry in developing countries is expected to increase by 3.2 per cent in 1986 and 3.8 per cent in 1987. However these forecast increases could be higher because of low crude oil prices. This forecast is below the average 4.1 per cent of the period 1980 to 1985 and corresponds to the declining trend in growth rates since 1974.

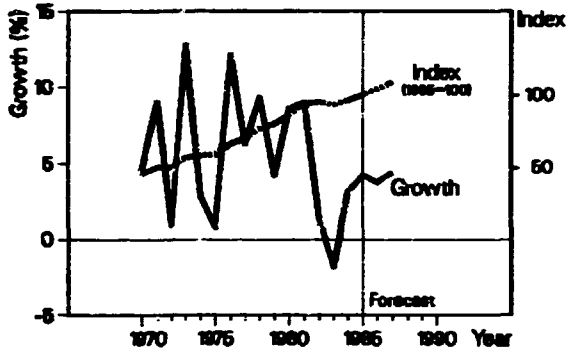
Latin America accounted for 45 per cent, and North Africa and West Asia** for 17 per cent of the refined petroleum output of the South in 1980, and in 1986 and 1987 output growth of 3.7 per cent and 4.4 per cent in Latin America, and 5.1 per cent and 5.7 per cent in North Africa and West Asia, is expected. Latin America is still recovering from the 1983 recession, while growth in North Africa and West Asia is slowing down. The fastest growth of output (8.0 per cent) is forecast for the Indian Subcontinent. Rapid growth is also forecast for Tropical Africa. Slow growth is forecast for South-East Asia (0.7 per cent and 1.4 per cent) where Indonesia produces over 50 per cent of the refinery output of the region.

After a sharp decline in output between 1979 and 1983, the output of refined petroleum in the North is expected to increase by 2.1 per cent in 1986 and 2.8 per cent in 1987.

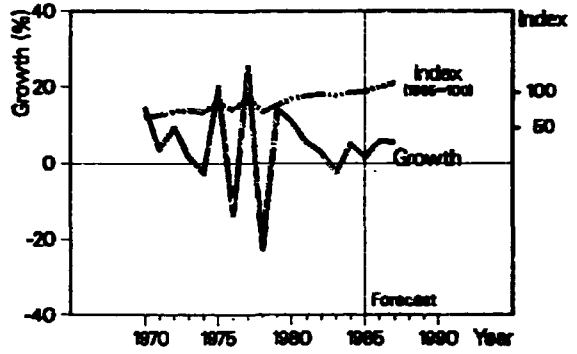
**It should be noted that Saudi Arabia is not included in the sample of countries from which the output of the region is estimated.

ISIC 353: Petroleum refineries
(Value added in constant 1980 prices)

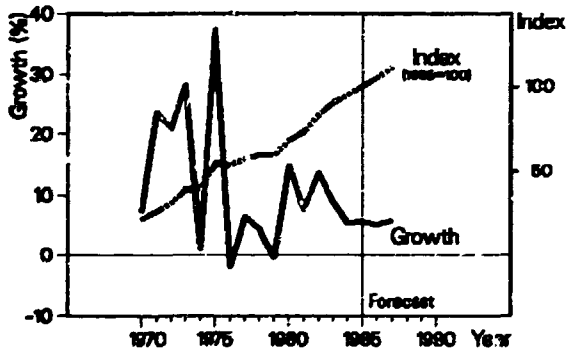
Latin America



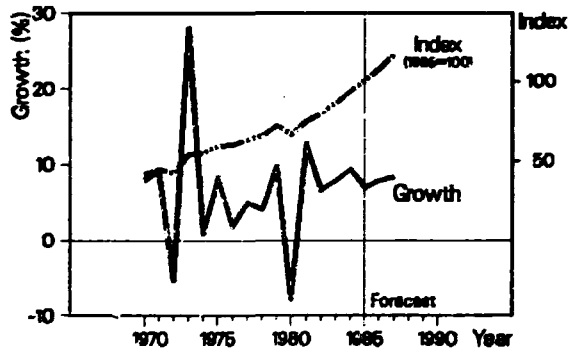
Tropical Africa



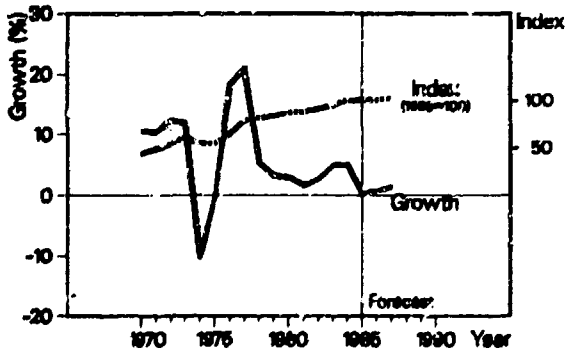
North Africa and West Asia



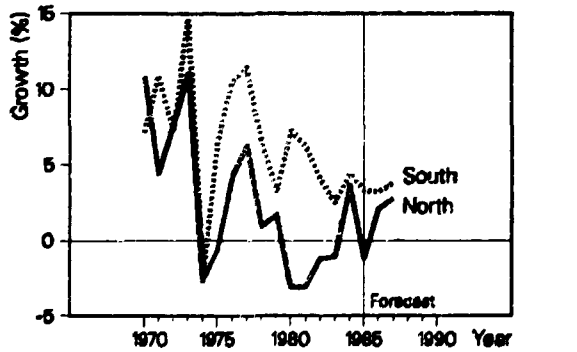
Indian Subcontinent



South-East Asia



North and South



Source: United Nations Industrial Statistics, estimates and forecasts by UNIDO/IS/GLD.

(b) *Present situation*

In 1979 world consumption of refined petroleum products reached a peak of 61.5 million barrels per day (b/d), but then declined by 11 per cent to 54.9 million b/d in 1983. World consumption increased by 0.7 per cent in 1984 and by about 2.0 per cent in 1985 [56]. The drop in world consumption has occurred mainly in fuel oil, and has necessitated a major change in the structure of refinery production to minimize production of fuel oil and increase output of gasoline.

There have been major programmes of rationalization, modification and reduction in refining capacity in North America, Western Europe and Japan, since 1979. Between 1980 and 1984, petroleum refining capacity was reduced by 17 per cent in North America, 21 per cent in Western Europe and 16 per cent in Japan [57]. As a result, the utilization of refining capacity in the world (excluding the USSR and Eastern Europe) averaged almost 74 per cent in 1984, compared with 67 per cent in 1983 [58].

The refining capacity of Japan was cut from 6 million b/d to 5 million b/d in 1983 and 1984, and a further cut to 4 million b/d is expected in 1986 so as to raise operating rates from 65 per cent to 80 per cent [59]. Little increase in the present level of refining throughput of 3.2 million b/d is expected in the period up to 1989, because the use of liquefied petroleum gas and liquefied natural gas is planned to increase sharply.

China's production of crude petroleum increased from 2 million b/d, in 1981 to 2.5 million b/d in 1985. Refining capacity has grown to 2.1 million b/d, and there are plans to raise it to over 2.6 million b/d by 1990.

The share of developing countries in world refining output was 35 per cent in 1980 and is rising fast. The surplus of refining capacity in the North has not deterred developing countries from increasing their own refining capacity. Table 2.5 provides information on expansion plans that will increase existing capacity in 18 developing economies by over 40 per cent between 1984 and 1990; one quarter of this will take place in Saudi Arabia where refining capacity will increase by 825,000 b/d by the end of 1986. Other developing countries are modernizing and adapting their export refineries to fit changing patterns of demand in the world market, and developing countries taken together account for about 90 per cent of the planned additions to world refining capacity.

The three developing countries with the largest refining output (Indonesia, Saudi Arabia, and Venezuela) accounted for 44 per cent of the output of the South in 1980. Venezuela was the largest exporter of refined products, followed by Saudi Arabia, Kuwait, the Netherlands Antilles, Singapore and Algeria. The output of the Netherlands Antilles refining centre has been reduced by weak demand for fuel oil in the United States, and the expansion of refining capacity in Indonesia and Saudi Arabia has reduced demand for output from Singapore's large refining centre.

Transnational corporations still play a dominant role in the world oil industry. Their share of world crude oil resources fell from 94 per cent in 1970 to 45 per cent in 1979, as producing countries assumed control over their natural resources. However, trans-

Table 2.5. Petroleum refining capacity in selected developing countries or areas and planned increases, 1984-1986 and after 1986

(Thousands of barrels per day)

Country or area	Capacity in 1983	Additions to capacity			
		1984	1985	1986	After 1986
Asia					
China (Taiwan Province)	515	27	—	—	—
India	779	130	24	—	120
Malaysia	...	—	—	—	120
Republic of Korea	776	—	—	60	150
Thailand	...	—	—	—	32
Latin America					
Argentina	678	12	—	30	—
Ecuador	95	—	—	—	35
Mexico	1 269	—	—	—	300
Peru	—	—	—	—	15
North Africa and West Asia					
Egypt	369	—	—	—	162
Iran (Islamic Republic of)	670	—	—	—	250
Iraq	365	—	—	—	150
Kuwait	614	—	—	—	115
Libyan Arab Jamahiriya	130	220	—	—	—
Saudi Arabia	1 048	250	250	325	150
Turkey	...	—	—	100	—
United Arab Emirates	196	—	—	—	100
Tropical Africa					
Nigeria	247	—	—	25	150
Total	7 751	639	274	540	1 799

Sources: For 1984 capacity, see Organization of Petroleum Exporting Countries, *Annual Statistical Bulletin 1984*, table 48. For additions to capacity, see "World survey: refineries", *Petroleum Economist*, September 1984, September 1985, and other issues describing country plans.

national corporations are still dominant in the sale of products of the petroleum refining industry. They accounted for 82 per cent of such sales in 1979, with the seven major companies accounting for 40 per cent [60].

A few member States of the Organization of Petroleum Exporting Countries (OPEC) have purchased refining outlets for their oil production in developed countries. Thus, Kuwait has purchased refineries and marketing outlets in Western Europe that can absorb over 200,000 b/d of its crude oil production, while Venezuela has invested in a refinery in the Federal Republic of Germany that can refine 100,000 b/d of its oil, and leased a refinery in the Netherlands Antilles to which it could supply approximately 150,000 b/d of a mixture of light and medium crudes. Additional investments of this type can be expected as OPEC member countries attempt to reverse the decline in their share of world markets that occurred between 1980 and 1985.

(c) *Long-term prospects*

Developing countries have established petroleum refineries because oil contributes approximately 80 per cent of commercial energy consumption. If this pattern of energy use continues, demand for refined

petroleum will increase by at least 70 per cent between 1985 and the year 2000. A substantial part of the increase in refining capacity could be established in OPEC member countries. The oil industry expects non-OPEC oil production to level out in the early 1990s, so that OPEC output could move back towards a production level of 25 million b/d by the mid-1990s, compared with 16.3 million b/d in 1984. The International Energy Agency expects OPEC production to reach 23 million b/d in 1990 and 29 million b/d in 2000 [61].

There are good prospects that exploration activities in some developing countries currently importing oil will be intensified and prove fruitful. A recent study showed that about 80 per cent of the exploration budget of the oil industries was spent in developed countries, where the cost per barrel of discovering oil and gas was nearly four times that of the cost of discovery in oil-importing developing countries. A recent United Nations Symposium found that exploration activity since 1980 has been concentrated on a very few countries (Argentina, Brazil, Colombia and India), where activity is dominated by the domestic State-owned companies [62], but exploration activities can be expected to cover a much wider range of developing countries during the period 1985-1990.

15. *Miscellaneous petroleum and coal products (ISIC 354)*

Asphalt, coal (bitumen), paving and roofing materials

Blended lubricating oils, greases

Distillation of coal in coke ovens

(a) *Short-term outlook*

The output of other petroleum and coal products in developing countries is expected to increase by 4.9 per cent in 1986 and 5.1 per cent in 1987, continuing a strong recovery from the 1982 recession.

Output is expected to grow fastest (8.0 per cent in 1986 and 6.5 per cent in 1987) in South-East Asia.* In Latin America, which accounted for 32 per cent of the output of the South in 1980, output is expected to rise by 5.4 per cent in 1986 and 6.2 per cent in 1987. This assumes that the 1985 recovery can be sustained. There is no indication of a recovery in this industry in Tropical Africa, where output is expected to decline further. Growth is expected to slow down compared with the 1983 peak year in North Africa and West Asia (4.0 per cent in 1986 and 5.5 per cent in 1987) and the Indian Subcontinent (3.0 per cent).

In developed countries, annual growth of output during the period is expected to be 2.4 per cent in both 1986 and 1987, thus continuing the slow growth performance of the past decade.

(b) *Present situation*

This is a small branch of industry that accounted for 0.7 per cent of total industrial output in both the South and the North in 1980. In the 1970s increased

output of petroleum products offset a decline in the output of coal products.

Three countries—Argentina, Brazil and Egypt—contribute about half the output of the South; another seven countries—India, Mexico, Nigeria, the Republic of Korea, Saudi Arabia, Singapore and Turkey—produce a further 30 per cent. Production of bitumen and lubricating oils has been the fastest growing component in the output of this branch.

Production of bitumen (asphalt) in eight of the countries listed above (excluding Nigeria and Singapore) increased by 13.5 per cent per annum between 1975 and 1980, by 5.2 per cent in 1981, and by 1.8 per cent in 1982. If the fourfold increase in bitumen output in Saudi Arabia is excluded, annual growth was 9.9 per cent per annum in the period 1975-1980.

In coal products, the largest volume of production is in cokeries. Brazil, India, Mexico and Turkey are the largest producers, but production in Argentina, Chile and the Republic of Korea is also significant. In six of these countries (excluding Mexico) output increased by 3.5 per cent per annum between 1975 and 1980, fell by 3.4 per cent in 1981, and increased again by 3.7 per cent in 1982.

The largest producers of oven coke are Brazil, India, Mexico, the Republic of Korea and Turkey. Their output increased by 9.4 per cent per annum between 1975 and 1980 and by 0.7 per cent in 1981, and stayed at the same level in 1982.

(c) *Long-term prospects*

The outlook for petroleum and coal products in developing countries is favourable. The demand for lubricating oils increases with the process of industrialization and bitumen is needed for expanding road construction programmes.

The outlook for coal products, coke and gas produced in industrial plants will depend on the availability of coal and further development of the steel industry. The consumption of coal is expected to increase by 50 per cent between 1984 and 2000 in developed countries and a similar trend can be expected in developing countries where production of steel is expected to increase from 64 million tonnes in 1984 to 88 million tonnes in 1990.

16. *Rubber products (ISIC 355)*

Tyres, tubes for automobiles, trucks, aircraft, tractors, etc.

Other rubber products

(a) *Short-term outlook*

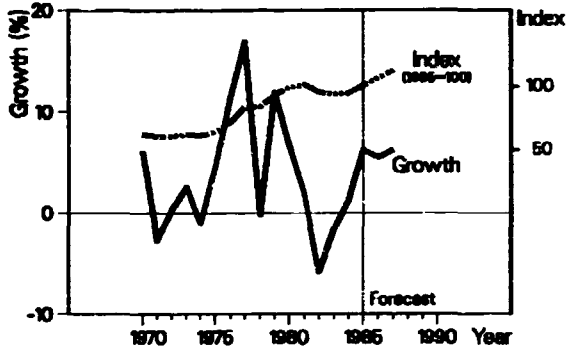
The output of rubber products in developing countries is expected to increase by 5.6 per cent in 1986 and by 5.1 per cent in 1987, which puts growth back at the level achieved before the drop in 1985.

The two regions where growth slowed in 1985 are expected to recover strongly in 1986 and 1987: for South-East Asia, 6.6 per cent and 5.7 per cent are forecast, and for Latin America the figures are 5.0 per cent and 4.2 per cent. The forecast growth of 7.0 per

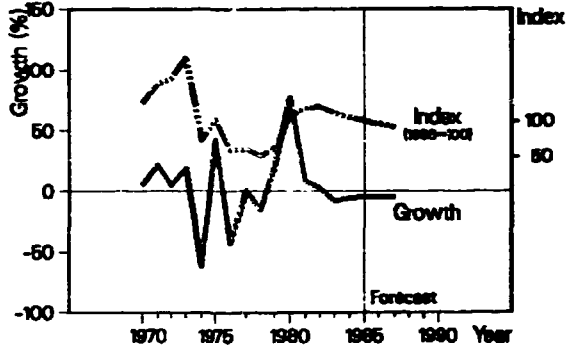
*No data are available for Indonesia in this industry.

ISIC 354: Miscellaneous petroleum and coal products
(Value added in constant 1980 prices)

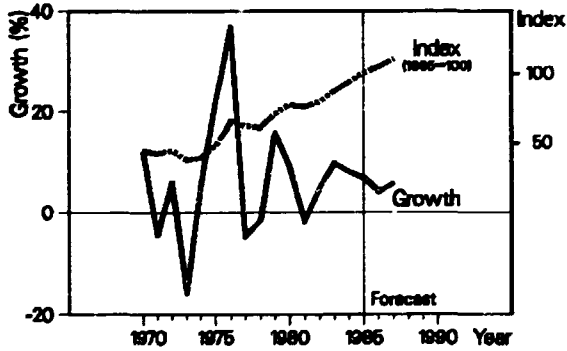
Latin America



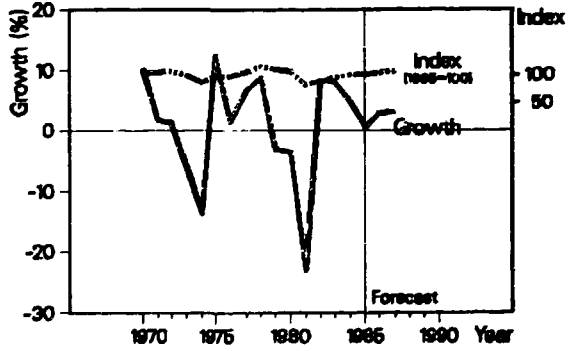
Tropical Africa



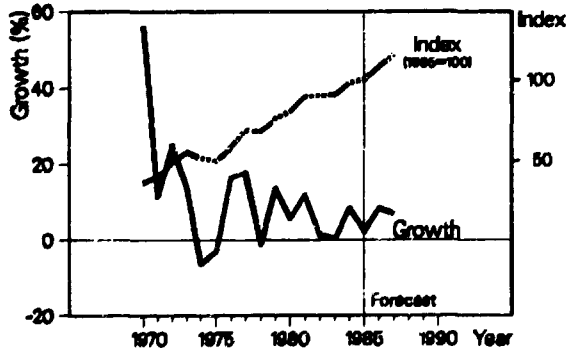
North Africa and West Asia



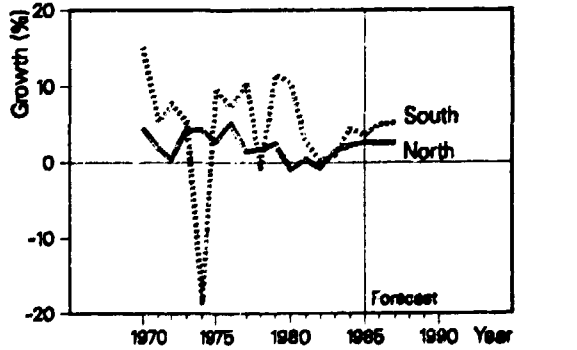
Indian Subcontinent



South-East Asia



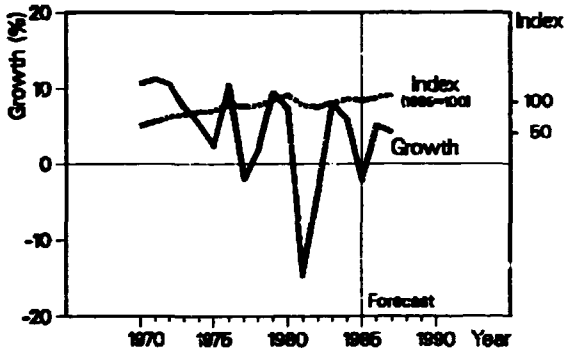
North and South



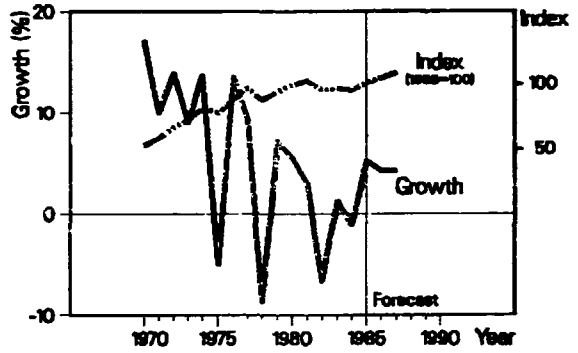
Source: United Nations Industrial Statistics, estimates and forecasts by UNIDO/IS/GLO.

ISIC 355: Rubber products
(Value added in constant 1980 prices)

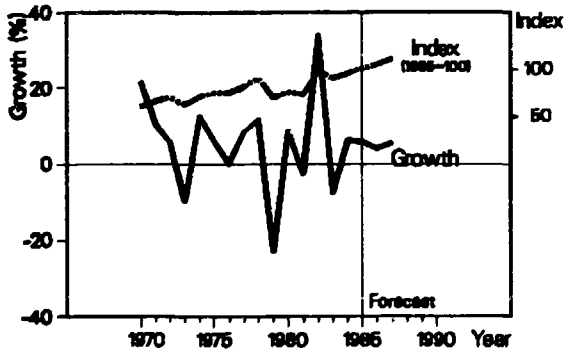
Latin America



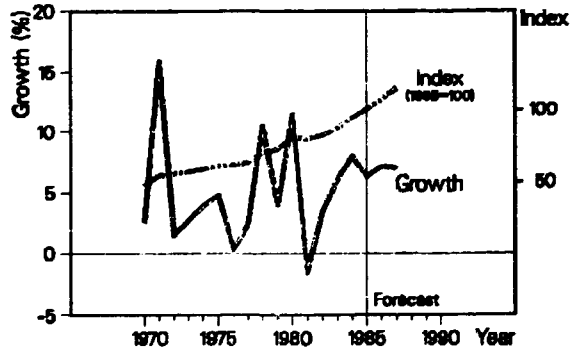
Tropical Africa



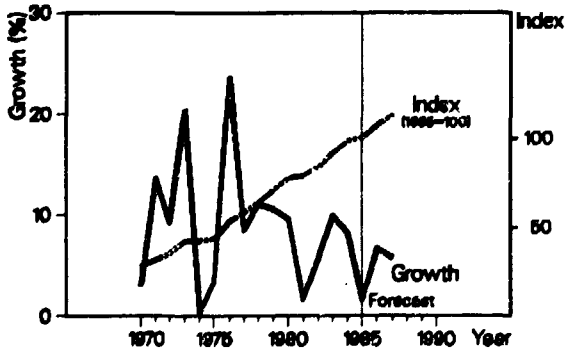
North Africa and West Asia



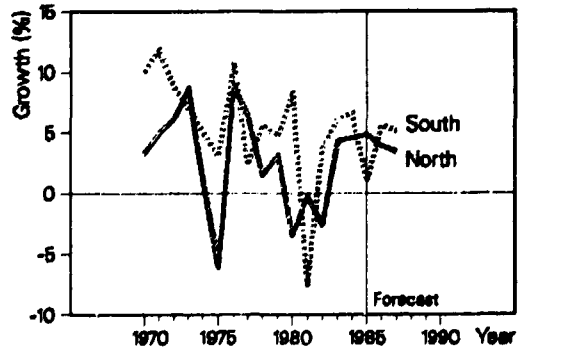
Indian Subcontinent



South-East Asia



North and South



Source: United Nations Industrial Statistics, estimates and forecasts by UNIDO/IS/GLO.

cent in the Indian Subcontinent reflects the fastest-growing motor vehicle population. Tropical Africa is expected further to sustain the recovery in this industry's output (4.2 per cent), and output growth in North Africa and West Asia should also increase (by 3.8 per cent and 5.4 per cent).

The output of rubber products in the North is expected to expand by 3.9 per cent in 1986 and 3.4 per cent in 1987, maintaining the growth rate achieved since the 1983 recovery.

(b) *Present situation*

The production of rubber tyres and inner tubes for motor vehicles, trucks and buses, motor cycles, bicycles, agricultural machinery and industrial and construction equipment accounts for over 60 per cent of the output of the industry in developed countries. The other 40 per cent of the output of the industry consists of rubber conveyor belting, hose, power transmission belts, moulded rubber products and consumer products such as rubber gloves and rubber footwear.

Ten developing economies* accounted for 78 per cent of the output of the South in 1980. Output of motor vehicle tyres increased by 8.0 per cent per annum between 1972 and 1982 in a sample of nine developing economies. By contrast, the output of a sample of seven larger developed countries increased by 3.5 per cent per annum between 1972 and 1982. There was a large decline in output in the United States because of the introduction of radial tyres with a longer life.

Weak demand in many developed countries in the 1980s has led to restructuring of the tyre industry in the United States and in Western Europe. Tyre producers already manufacture synthetic rubber and there has been further backward integration by some producers to the manufacture of tyre cord fibres and fabric, steel belts and the wheels and rims on which tyres are mounted.

Transnational corporations have played a key role in the development of the rubber products industry in developing countries. Initially transnational corporations owned rubber plantations in Brazil, Ghana, Indonesia, Liberia, Malaysia and the Philippines. Later, tariff protection encouraged local manufacture of rubber tyres in many developing countries. One transnational corporation produces tyres in 17 developing countries and industrial rubber products in 7 countries, another produces rubber tyres and tubes in 11 developing countries, and a third produces in 6 countries.

As producers of natural rubber, developing countries have a special interest in the processing of rubber to improve its properties and hence its ability to compete with synthetic rubber. UNIDO initiated an interregional project which started in 1984 on the development of industrial composite materials based on natural rubber for use in structural components for engineering and automotive parts and as specialized building components.

*These were Argentina, Brazil, China (Taiwan Province), Colombia, India, Indonesia, Malaysia, Mexico, Nigeria, the Republic of Korea, Turkey and Venezuela.

Developing countries with small tyre markets may consider the potential for retreading tires. In the United States in 1975, 31 million car tyres (18 per cent of all replacements) and 10 million truck and bus tyres (40 per cent of all replacements) were retreaded. The recycling of rubber tyres has reached a high level in Japan, where 90 per cent of the tyres collected were recycled either as retreaded or reclaimed material [63].

(c) *Long-term prospects*

Transport equipment accounts for a major part (perhaps 60 per cent) of demand for rubber products: most of the remaining 40 per cent is for other industrial uses. A study published in 1984 forecast that total world demand for rubber would grow by 3 per cent per annum between 1980 and 2000, rubber used in tyres by 1.1 per cent, rubber used in commercial vehicle tyres by 2.0 per cent, and rubber for non-tyre uses by 4.5 per cent [64]. A faster growth was forecast for developing countries, where tyres for trucks and buses account for half the amount of rubber consumed.

The demand for rubber tyres is linked to the replacement demand for a growing stock of bicycles, motor cycles, light commercial vehicles, cars, trucks and buses, as well as to tyres for new vehicles. As a wider range of developing countries start local assembly or integrated manufacture of motor vehicles, demand for tyres will receive an additional stimulus.

17. *Plastic products (ISIC 356)*

Moulding, extruding, fabricating plastic articles
Plastic bottles, footwear, furniture etc.

(a) *Short-term outlook*

Output of the plastic products industry in developing countries is expected to increase by 6.0 per cent in 1986 and in 1987, reflecting developments in the two most important regions, Latin America and South-East Asia.

The forecasts are for averages of 7.0 per cent growth in South-East Asia and 5.1 per cent growth in Latin America for the two years. Rapid growth is also forecast for the Indian Subcontinent (8.3 per cent), in line with the trend since 1981. Growth is expected to be moderate in North Africa and West Asia (3.6 per cent in 1986 and 4.4 per cent in 1987) and at around 4.0 per cent in Tropical Africa.

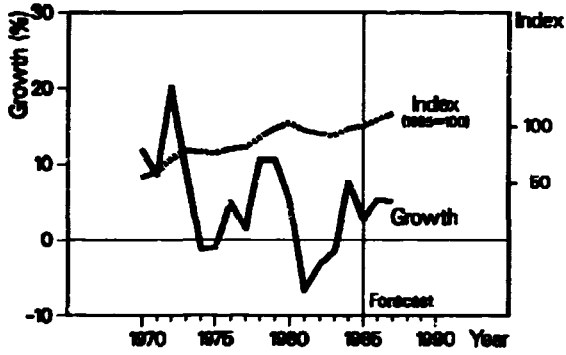
In developed countries the annual growth of output is expected to be about 6.3 per cent in 1986 and 1987. This level of growth has prevailed since the recovery in 1983.

(b) *Present situation*

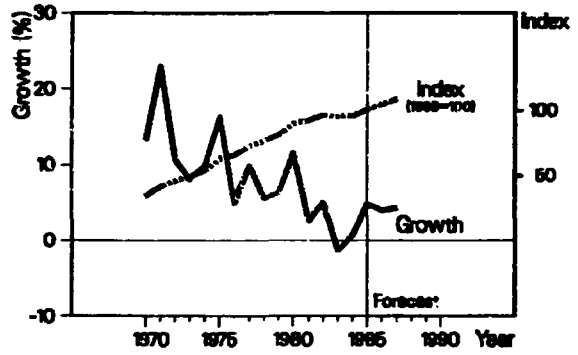
Some types of plastics processing units can be set up on a small scale, and most developing countries have established several plants. Thus, while India has 10,000 processors of plastics, the figure of 50 to 100 units found in Jordan, Peru, Trinidad and Tobago, Tunisia and Uruguay is a more typical figure. Plants are usually established with advice from the equipment supplier; entry into the industry requires little capital and the production process is relatively

ISIC 356: Plastic products
 (Value added in constant 1980 prices)

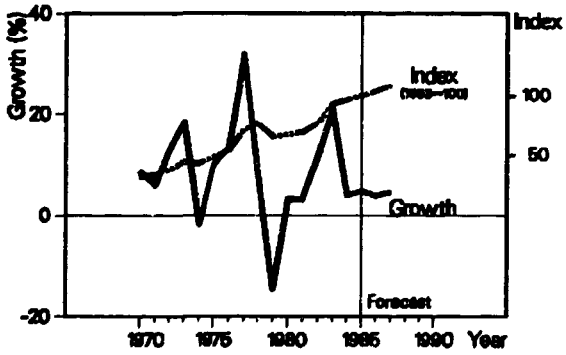
Latin America



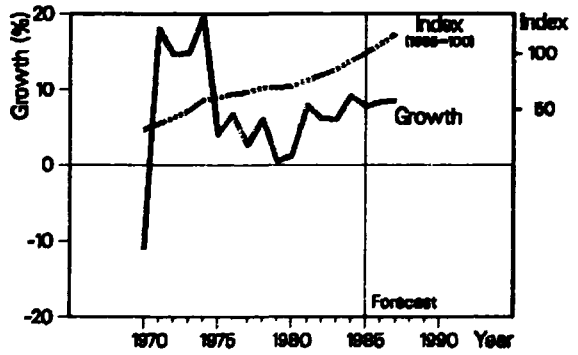
Tropical Africa



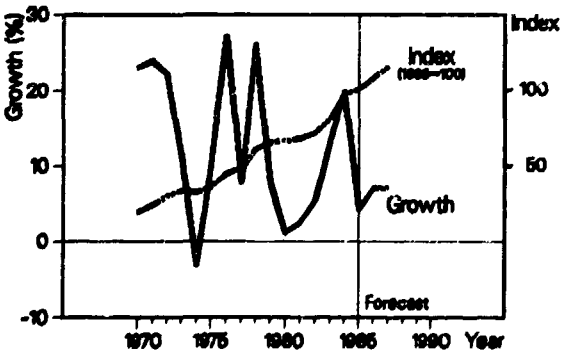
North Africa and West Asia



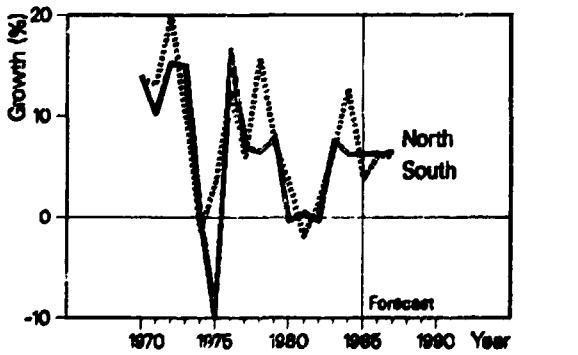
Indian Subcontinent



South-East Asia



North and South



Source: United Nations Industrial Statistics, estimates and forecasts by UNIDO/IS/GLO.

easy to master. Skill requirements are greater for the making of moulds from which plastic products are shaped.

Plastic products are produced mainly from resins of the five major thermoplastics—low-density polyethylene, high-density polyethylene, polypropylene, polystyrene and polyvinyl chloride. Low-density polyethylene is transformed mainly into film for packaging and other uses. The biggest uses of high-density polyethylene are for blow-moulding (bottles and containers) and injection moulding. Polystyrene is used for injection moulding and extrusions. Polyvinyl chloride is widely used for pipes and conduits, and polypropylene for injection moulding and fibres.

Estimates made from the UNIDO data base on petrochemicals show that demand for plastics in developing countries (including China) increased by almost 15 per cent per annum between 1970 and 1980. This fell to 10 per cent in the period 1980-1984, and is expected to drop to 9 per cent during the period 1984-1990. Developing countries imported about one third of their requirements in the period 1980-1984, but the production of plastic products will have increased in line with the consumption of plastic resins (see table 2.6).

UNIDO technical assistance and training programmes have helped developing countries to develop the production of plastic products with special emphasis on the use of plastics in agriculture. Assistance projects in 1984 and 1985 included a Workshop on Plastics in Agriculture organized in co-operation with the Government of Egypt, training courses on plastics technology and mould-making in co-operation with the Government of Austria, strengthening of the Egyptian Plastics Development Centre, advice to China on recycling plastics waste, training of personnel from the plastics processing industries in Bangladesh and India, and a Symposium on the Petrochemical Industry in Saudi Arabia.

(c) Long-term prospects

The outlook is for a rapid increase in the use of plastics in most developing countries. Per capita consumption of plastics in developing countries is still low; in 1983 it was 18 kilograms in Latin America, 3.5 kilograms in North Africa and West Asia and 1 kilogram in Tropical Africa. Annual growth in

output of plastic products of about 9 per cent per annum up to 1990 is forecast by UNIDO.

The end-uses requiring large volumes of plastics in developed countries are packaging and construction. In developing countries, where plastics are used less for packaging but more widely in construction and agriculture, many potential uses of plastics have yet to be realized, and further rapid growth of output is expected.

18. Pottery, china and earthenware (ISIC 361)

China tableware and kitchenware
Bathroom and other ceramic fittings
Stoneware, earthenware pots

(a) Short-term outlook

The output of the ceramics industry in developing countries is expected to increase by 3.6 per cent in 1986 and 3.2 per cent in 1987.

The growth forecast for Latin America, the main producer of the South, accounting for 65 per cent of output in 1980, is 3.6 per cent in 1986 and 2.7 per cent in 1987. This region suffered a strong recession between 1981 and 1983, and the 1984 recovery was again interrupted in 1985. South-East Asia also had a recession in 1985, but is expected to recover with growth rates of 5.7 per cent in 1986 and 4.9 per cent in 1987, which are below the rates of previous high-growth periods. Tropical Africa is expected to continue with steady growth (2.7 per cent and 4.0 per cent), and the same holds true for North Africa and West Asia (1.3 per cent and 3.3 per cent). Only the Indian Subcontinent is forecast to grow slowly (1.0 per cent), unable to sustain the high growth of the period 1970-1984.

Output of the ceramics industry in developed countries is expected to grow by around 3.4 per cent in 1986 and 1987. The faster growth rates already indicated the expected strong revival of this industry in the near future.

(b) Present situation

It is difficult to obtain an accurate measure of the output of household wares in developing countries,

Table 2.6. Growth of demand for plastics in developing countries, 1980, 1984 and 1990

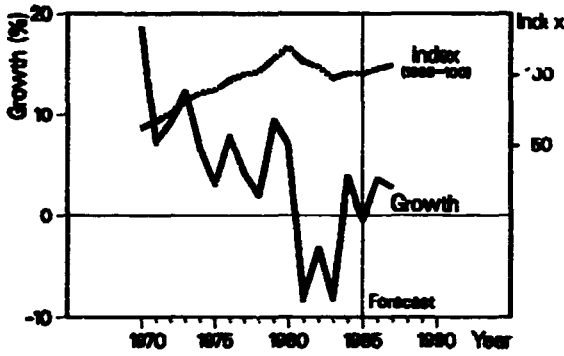
Type of plastic	Demand (thousands of tonnes)				Annual average growth rates (percentages)		
	1970	1980	1984	1990	1970-1980	1980-1984	1984-1990
Low-density polyethylene	550	2 170	3 050	5 000	14.7	8.9	8.6
High-density polyethylene	190	1 070	1 520	2 000	18.9	9.2	10.7
Polypropylene	190	890	1 580	2 450	16.7	15.4	7.6
Polystyrene	180	680	1 010	1 800	15.8	10.4	10.1
Polyvinylchloride	750	2 450	3 510	6 000	12.6	9.4	9.3
Total	1 840	7 280	10 670	18 050	14.7	10.0	9.2

Source: "Current world situation in petrochemicals" (UNIDO/PC.126), prepared for the Third Consultation on the Petrochemical Industry, Vienna, December 1985.

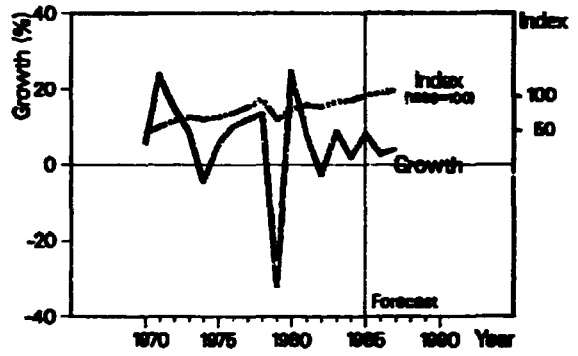
Note: The UNIDO data base on petrochemicals includes China in the group of developing countries.

ISIC 361: Pottery, china and earthenware
 (Value added in constant 1980 prices)

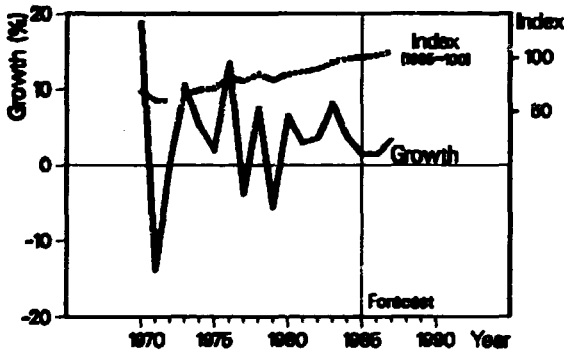
Latin America



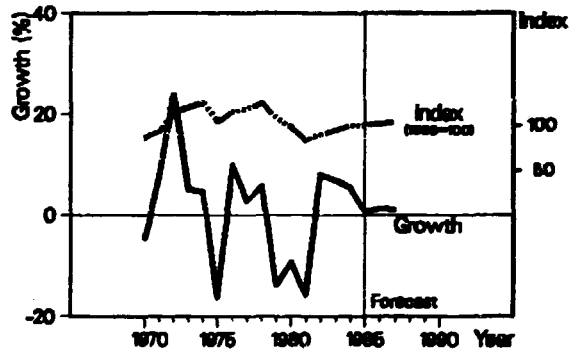
Tropical Africa



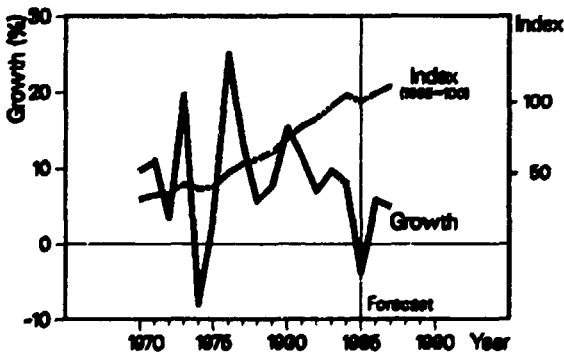
North Africa and West Asia



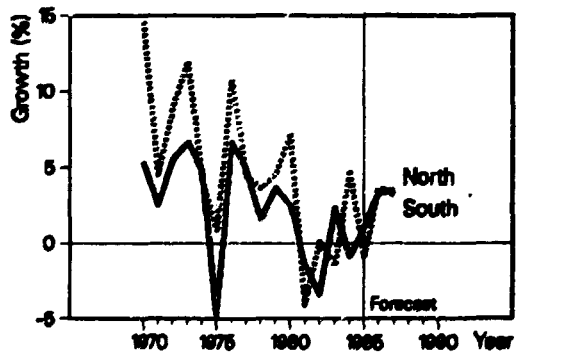
Indian Subcontinent



South-East Asia



North and South



Source: United Nations Industrial Statistics,
 estimates and forecasts by UNIDO/IE/GLO.

since much of the production is on a small scale or an artisanal basis. Part of the measured increase in production represents replacement of small-scale production by production in modern plants. As a result, the annual rate of growth of output in different countries has ranged between 4.1 per cent and 26.2 per cent.

The volume of production of ceramic sanitary fittings (baths, wash basins, toilets etc.) is much larger than that of household wares in most developing countries. Production usually takes place in a modern plant and in some countries production lines have been fully automated.

International trade in household porcelain and china was valued at \$0.9 billion in 1980. Developing countries accounted for 20 per cent of world imports, and North Africa and West Asia for about half the imports of the South. There are no data on trade in ceramic sanitary fittings.

There is considerable scope in many developing countries for updating and adapting existing production facilities, and UNIDO has assisted, for example, in the establishment of a central ceramic research and development laboratory in Sri Lanka. The Government is prepared to make its services available to potential users outside Sri Lanka, through technical seminars and twinning arrangements with similar institutions.

(c) *Long-term prospects*

The long-term prospects are for continued growth of the ceramics industry in developing countries to meet the demand of the fast-growing urban population for household wares and for ceramic sanitary fittings. The ceramics industry in a few developing countries may start to diversify its production to take account of the development of high-strength, light-weight ceramic materials produced by the industry in developed countries.

A wide variety of new products and advanced technologies have emerged in developed countries where the market for advanced ceramics is expected to increase threefold between 1980 and 1990. The development of these materials is in a position similar to that of the plastics industry a few decades ago. In future, ceramics may replace metals in some applications, such as engines, and may replace plastics themselves in some other applications. In the electronics industry, advanced ceramics are being used as a thermoinsulator in thin-film electronic circuits and other chip subassemblies.

19. *Glass and glass products (ISIC 362)*

Glass containers

Sheet glass

Glass fibres

Other glass products

(a) *Short-term outlook*

The output of the glass and glass products industry in developing countries is expected to increase by 4.6 per cent in both 1986 and 1987.

The largest change is expected in the region accounting for over 60 per cent of the output of the South, namely Latin America, where growth rates of 3.5 per cent and 3.9 per cent in 1986 and 1987 compare with a 2.9 per cent fall in output in 1985. South-East Asia also suffered a drop in 1985, but is not expected to attain the very high growth rates of previous years, the forecast being 7.0 per cent in 1986 and 5.2 per cent in 1987. Growth of more than 5.0 per cent is forecast for North Africa and West Asia and the Indian Subcontinent, where the industry has performed well in the recent past. For North Africa and West Asia the forecast means a continuation of the slow-down in growth rates, while for the Indian Subcontinent trends are improving. Growth in Tropical Africa has slowed down considerably since 1981, and is forecast to be 1.1 per cent in 1986 and 2.2 per cent in 1987.

In developed countries, the annual rate of growth of output is expected to be 4.3 per cent in 1986 and 4.0 per cent in 1987, maintaining the growth rate of the recovery in 1984.

(b) *Present situation*

In the United States, the largest consuming country, sales of glass may be broken down as follows: containers, 26 per cent; sheet glass, 27 per cent; glass fibre, 18 per cent; lighting, 13 per cent; consumer glass, 6 per cent; cathode ray tubes, 6 per cent; and other uses, 4 per cent. In developing countries, the production of glass containers accounts for 65-75 per cent of the output of the industry by weight, and sheet glass for about 25 per cent. New end-uses, for example in glass fibres and glass-optics, account for a small, but rapidly growing, part of the output of the glass industry in developed countries, but very few developing countries have so far entered these fields. The main producers of toughened safety glass for car windscreens are developed countries, but Mexico is also a large producer.

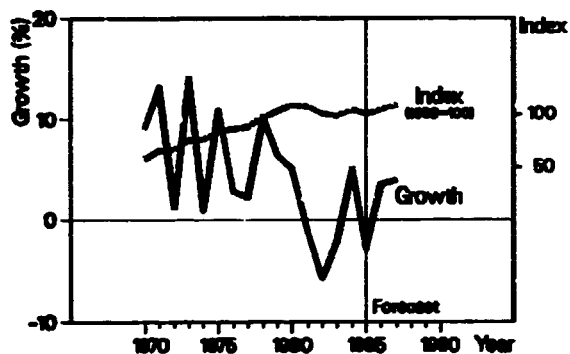
Developing countries produced an estimated 280 million square metres of sheet glass in 1980. This estimate is based on output data for seven countries which, according to UNIDO data on value added, accounted for 66 per cent of the South's output of glass. Developing countries produced an estimated 16 billion units of glass bottles and containers in 1980, and between 1973 and 1980 the rate of growth of output in seven developing countries varied from 4.4 per cent to 19.0 per cent per annum (compared with 4.3 per cent to 12.3 per cent for sheet glass) [65].

International trade in glass products was valued at \$3.8 billion in 1980, and imports of developing countries accounted for 19.0 per cent of the total and their exports for 3.5 per cent. The principal importing regions were North Africa and West Asia (8.0 per cent), Latin America (6.0 per cent), Tropical Africa (3.5 per cent) and South-East Asia (2.5 per cent). About 75 per cent of the imports were household glass articles and glass bottles, and 25 per cent were sheet glass.

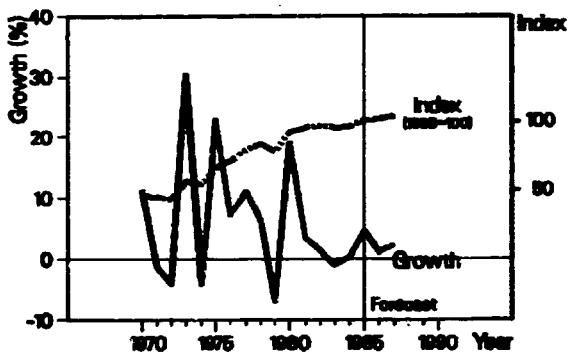
In developed countries, the volume of output of sheet glass (measured by weight) did not increase in

ISIC 362: Glass and glass products
(Value added in constant 1980 prices)

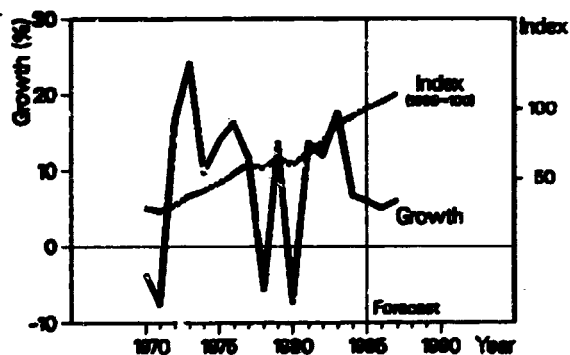
Latin America



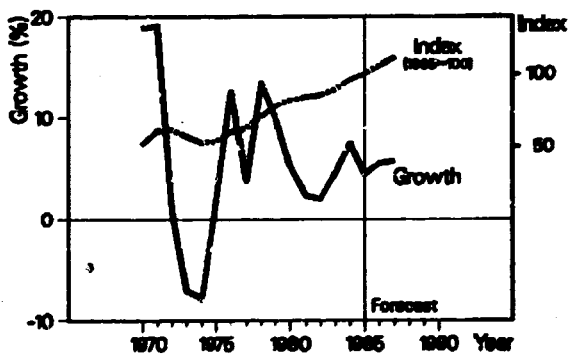
Tropical Africa



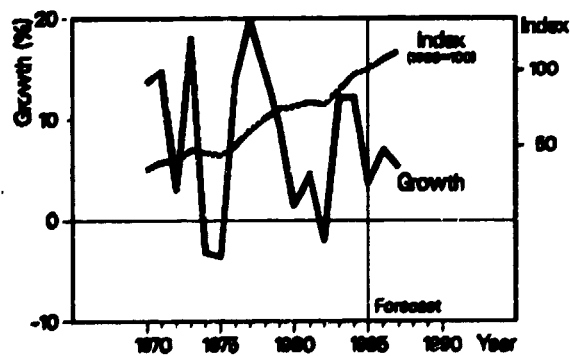
North Africa and West Asia



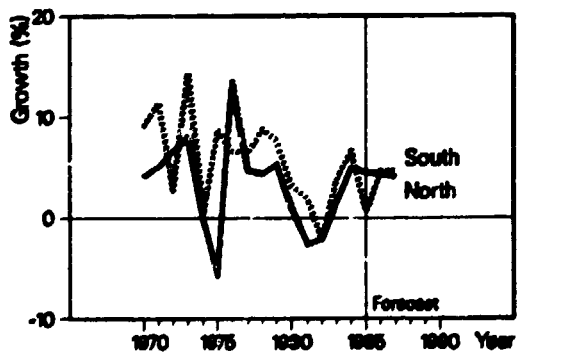
Indian Subcontinent



South-East Asia



North and South



Source: United Nations Industrial Statistics, estimates and forecasts by UNIDO/IE/GLO.

North America, the USSR or Western Europe between 1973 and 1982, although in other Eastern European countries it was 6.0 per cent higher in 1982 than in 1973. The introduction of the superior float-glass process in the 1960s and 1970s revolutionized production methods and led to overcapacity that required a major restructuring of the industry.

Between 1973 and 1982 the demand for glass bottles and other containers increased by 14.0 per cent in North America, 23.0 per cent in Western Europe and 28.0 per cent in Eastern Europe. Increased penetration of the container market by plastics and metal containers reduced demand for glass bottles and further contributed to the restructuring of the industry. In the United States, plastic bottles increased their share of the soft drinks market from 7.6 per cent in 1978 to 22.6 per cent in 1984, and as a result glass container shipments fell by 13.0 per cent between 1980 and 1984 and the number of glass container plants fell from 126 in 1977 to 105 in 1984 [66]. In Western Europe, glassware sales fell by 7.0 per cent between 1979 and 1983, but increased by 2.7 per cent in 1984 and by about 5.0 per cent in 1985.

(c) *Long-term prospects*

The long-term prospects are for sustained growth of the glass industry in developing countries. Demand for sheet glass will continue to grow rapidly in line with the growth of building construction, and smaller plants may bring the float-glass process within reach of developing countries with small markets. Demand for glass containers will reflect demand for soft drinks and pharmaceuticals, two of the fastest-growing industrial branches in developing countries.

In developed countries the glass industry has improved its technology in order to save energy, and developed new products and materials. Glass fibres are being used as a reinforcing material to replace asbestos, and glass optical fibre is replacing copper in telephone cables on an increasing scale. The glass industry in the North, faced with overcapacity for traditional outlets, sees a bright future for these and other new uses of glass.

20. *Other non-metal mineral products (ISIC 369)*

Bricks, tiles, pipes
Cement, lime, plaster
Other building materials

(a) *Short-term outlook*

The output of cement and other building products in developing countries is expected to grow by 5.0 per cent in 1986 and 5.2 per cent in 1987. This increase continues the recovery of 1984 and 1985.

Output in Latin America declined by 4 per cent between 1982 and 1983 and dropped again in 1985. In 1986-1987 it is expected to reach the 1984 recovery rate with growth of more than 4.0 per cent. For

South-East Asia, where declines in 1982 and 1985 were not as strong as in Latin America, growth rates of 7.7 per cent and 6.5 per cent are forecast. Rapid growth is also expected for the Indian Subcontinent (7.4 and 6.7 per cent), maintaining its strong past performance. Steady growth is forecast to continue in North Africa and West Asia (3.9 per cent in 1986 and 5.2 per cent in 1987), and the weak growth in Tropical Africa (around 1.0 per cent) still marks a major improvement compared with the 1982-1984 recession.

The output of the building materials industry in developed countries is expected to increase by 1.7 per cent in 1986 and 1.6 per cent in 1987, which is only half of the growth achieved in the 1983-1984 recovery.

(b) *Present situation*

The production of building materials in the developing world is heavily concentrated in ten economies* that produced 77 per cent of the output of the South in 1980. These economies produced 125 million tonnes of cement in 1980, with the annual rate of growth of cement output varying between 2.5 per cent (India) and 32.3 per cent (Indonesia). The available statistics show that the physical output of bricks, roofing tiles, floor and wall tiles and quicklime has generally grown faster than the output of cement, but that output of clay building bricks and roofing tiles has grown more slowly.

The output of the building materials industry in developed countries peaked in 1978 and 1979. Output then declined until 1982 in all of the largest producing regions, before recovering in 1983 and 1984. Production of cement increased in the United States by 11 per cent in 1983 and 10 per cent in 1984, increased only a little in the EEC countries in 1983 and 1984, and increased by 4 per cent in 1984 in Japan.

International trade in cement was valued at \$2.67 billion in 1980, equivalent to about 45 million tonnes. In that year developing countries accounted for 75 per cent of world imports, with Saudi Arabia importing 10.5 million tonnes, Egypt 2.8 million tonnes, Kuwait 2.7 million tonnes and Iraq 1.9 million tonnes. North Africa and West Asia has continued to be the main importing region, with imports totalling 34 million tonnes in 1983.

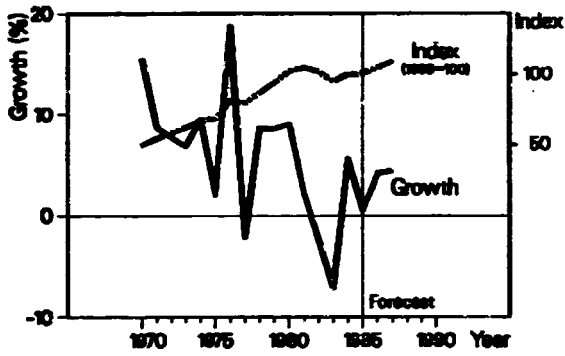
New plants under construction or planned in North Africa and West Asia have a total capacity of 20 million tonnes, with Egypt accounting for over half of the new capacity. In the Indian Subcontinent, Latin America and South-East Asia, new capacity is being added at a slower pace than in the past. Little new capacity is planned in Tropical Africa, which imported almost 6 million tonnes of cement in 1980 [67].

Cement is the building material used in largest volume, but in many African countries, UNIDO has found that fired or unfired clay products can be used for low-cost housing, and a mobile mechanized brick-making plant has been introduced in the United Republic of Tanzania, with the experience gained

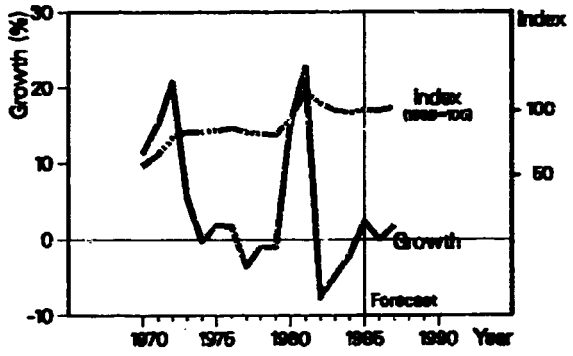
*These were Argentina, Brazil, China (Taiwan Province), India, Indonesia, Iran (Islamic Republic of), Mexico, Republic of Korea, Thailand and Turkey.

ISIC 369: Other non-metal mineral products
(Value added in constant 1980 prices)

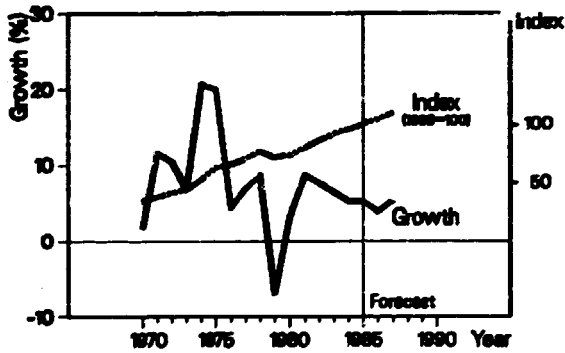
Latin America



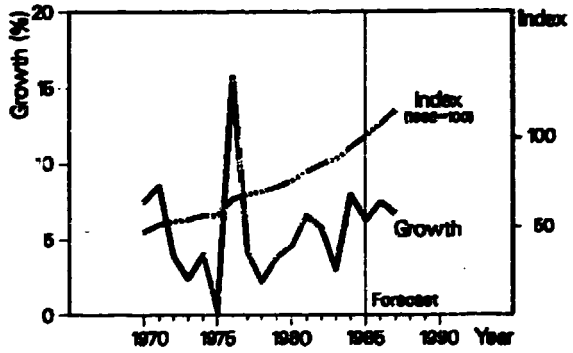
Tropical Africa



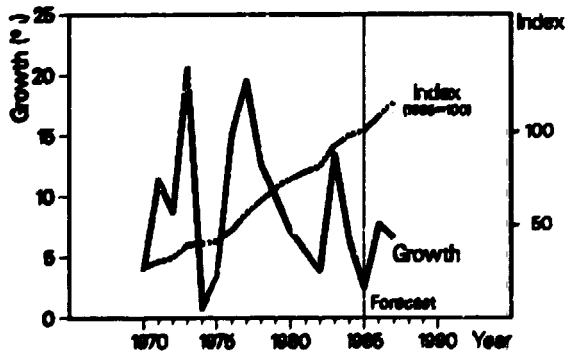
North Africa and West Asia



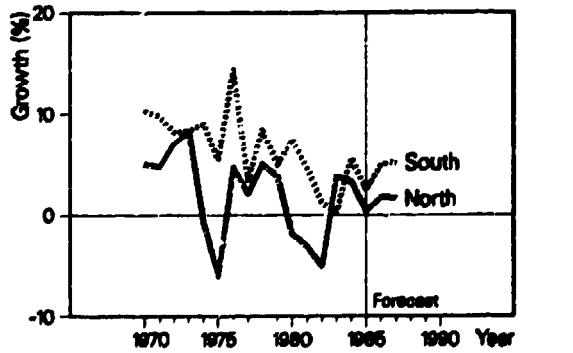
Indian Subcontinent



South-East Asia



North and South



Source: United Nations Industrial Statistics, estimates and forecasts by UNIDO/IS/GLO.

being made available to other interested Governments. In Asia, a regional network for low-cost building and construction systems has been established with a membership of 12 Asian and Pacific countries. In Indonesia a project for the development of low-cost building materials has led to the establishment of central demonstration projects including model production units.

The First Consultation on the Building Materials Industry, organized by UNIDO and the United Nations Centre for Human Settlements (HABITAT), recommended that UNIDO should develop long-term strategies for increasing the supply of building materials and for enlarging varieties that could be produced on the basis of local resources.* UNIDO was also asked to provide information on the principal technological options for the production of building materials at different scales of operation. Other recommendations related to financing, research and development and the establishment of standards, codes and regulations. The importance of the informal sector in this industry was also stressed.

The First World Congress on Non-metallic Minerals was convened by UNIDO in 1985. A Second World Congress is scheduled to be held in 1989.

(c) *Long-term prospects*

The long-term prospects for the building materials industry are linked to those of the construction industry. Most developing countries lack an adequate infrastructure of buildings and roads, and the industry will be required to supply the building materials these large construction programmes require. Growth prospects are therefore considered to be good.

21. *Iron and steel (ISIC 371)*

Steel billets, blooms, slabs or bars
Hot, cold-rolled steel sheet
Castings, forgings
Tubes, pipes
Rails, rods

(a) *Short-term outlook*

The output of the iron and steel industry in developing countries is expected to increase by 6.4 per cent in 1986 and 1987, which continues the upward trend that started in 1982.

The sustained recovery is mainly due to Latin America, which produced more than 50 per cent of the output of the South in this industry in 1980. Forecasts of 5.4 per cent and 5.9 per cent growth show a continuation of the strong performance of 1984 and 1985. Growth in South-East Asia dropped from an average of 20 per cent in the 1970s to around 10 per cent in the early 1980s. It is expected that this level of

growth can be achieved again after the sudden drop in 1985. The Indian Subcontinent is expected to sustain its steady growth (6.0 per cent and 5.6 per cent), while North Africa and West Asia drop below the level of the 1982 recovery (4.6 per cent in 1986 and 5.8 per cent in 1987). Tropical Africa is expected to have overcome the 1982 recession and to maintain the better performance of recent years (3.8 per cent in 1984 and 5.4 per cent in 1985).

The output of steel in developed countries is expected to grow by 2.1 per cent in 1982 and 1.3 per cent in 1987. This reflects the fact that the crisis of this industry in the North is not yet over, despite the sharp recovery in 1984.

(b) *Present situation*

The iron and steel industry produces steel in various forms classified as flat products, non-flat products and pipes. At the initial stage, the largest demand is for reinforcing rods for the building industry. Only ten developing economies** are included among the list of the world's 34 largest steel producers, and they account for approximately nine tenths of the South's steel output. As a group, developing countries doubled production from 31 million tonnes in 1974 to 64 million tonnes in 1984, but they still imported over 30 million tonnes of steel (at a cost of about \$45 billion).

In the mid-1970s, most forecasts predicted continued growth in demand for steel in both the North and the South. However, between 1979 and 1983, steel output fell by 33 per cent in the United States, by 25 per cent in the EEC and by 15 per cent in Japan, while output remained constant in the CMEA countries. In developing countries, consumption of steel fell by 8 per cent between 1980 and 1983, with output increasing sharply in Asia, but falling in Latin America and Tropical Africa.

Reasons have been sought for the decline in demand for steel in developed countries. The International Iron and Steel Institute found in 1983 that there was no single explanation for this decline [68]. The basic reason is that steel consumption depends much more on changes in the level of investment in the economy than on economic growth. In addition, the amount of steel used to produce various types of capital goods has declined as the quality and performance of steel has improved. For example, a typical car built today uses less than half the volume of steel used in 1975. Another factor has been the major improvements in the efficiency of steel rolling mills.

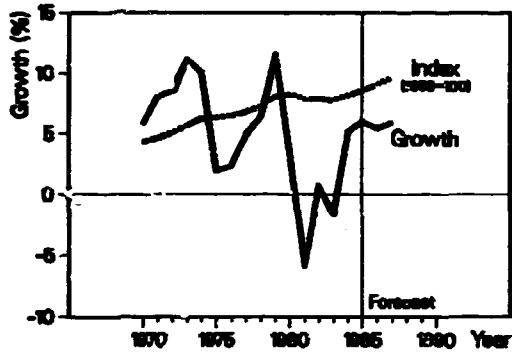
Forecasts of the growth of demand and output in developing countries have also been lowered. At the end of the 1970s, developing countries had announced plans to increase production capacity from 76 million tonnes in 1980 to 139 million tonnes in 1990. The world recession and the international debt crises have reduced demand for steel and led many developing countries to cancel or postpone their plans to construct

**In 1980 the ten largest producers in the developing world were: Argentina, Brazil, China (Taiwan Province), India, Iran (Islamic Republic of), Mexico, Pakistan, Turkey, the Republic of Korea and Venezuela. Mainland China and the Democratic Republic of Korea are not included in the sample.

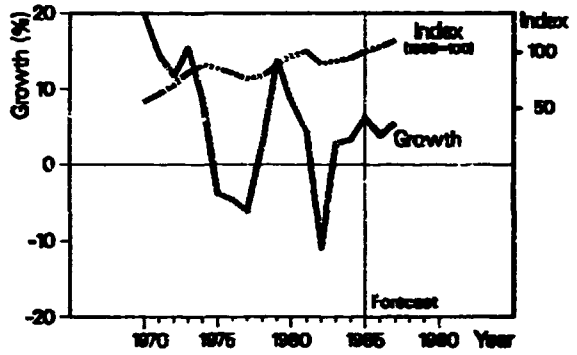
*See the Report of the First Consultation on the Building Materials Industry (ID/335).

ISIC 37: Iron and steel
 (Value added in constant 1980 prices)

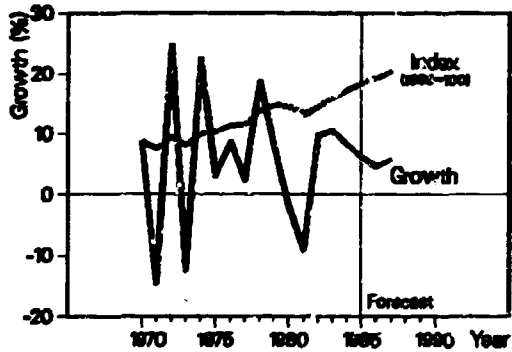
Latin America



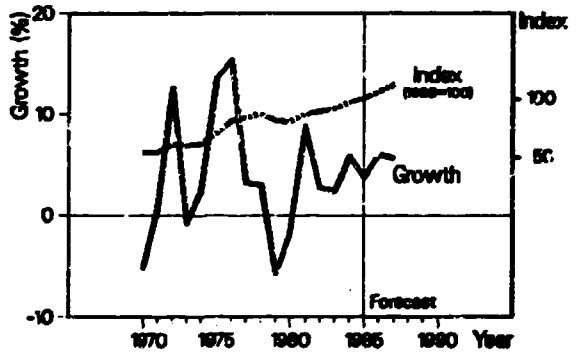
Tropical Africa



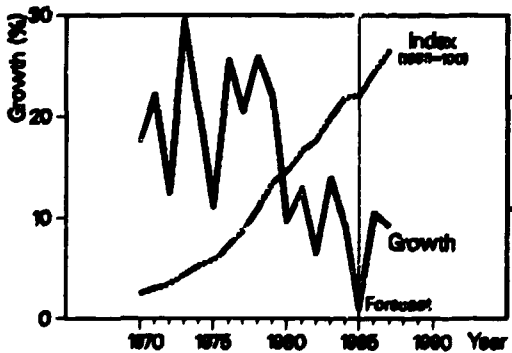
North Africa and West Asia



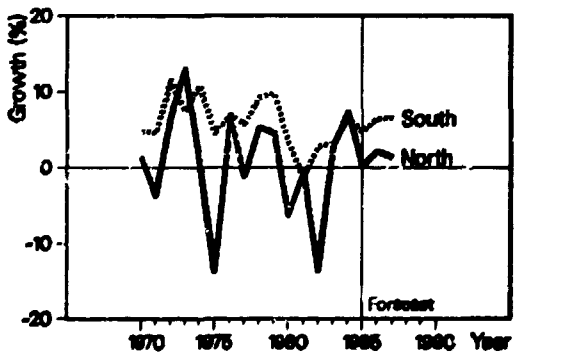
Indian Subcontinent



South-East Asia



North and South



Source: United Nations Industrial Statistics, estimates and forecasts by UNIDO/E/GLO.

new capacity. It now seems that only 38 million tonnes of the planned 63 million tonnes of new capacity will be constructed. The main shortfall is in Latin America where new capacities of almost 15 million tonnes have been postponed. In Asia the shortfall is 8 million tonnes, in North Africa and West Asia 2 million tonnes, and in Tropical Africa 0.5 million tonnes.

The current situation in the steel industry has been discussed at four UNIDO Consultations on the Iron and Steel Industry, the Fourth Consultation having been held in June 1986.*

(c) *Long-term prospects*

The main constraint on the growth of the industry in developing countries is not so much demand as supply, and in particular the difficulty of obtaining access to the large-scale financing required for such capital-intensive projects as basic steel plants. The construction and operation of a steel plant using modern technology is also skill-intensive, at both the management and the operator level, but skills are less costly to acquire than the physical plant.

The prospects for reviving the many steel projects that were cancelled or postponed in developing countries during the period 1980-1985 are not very bright. Many of the projects are located in heavily indebted countries, and in other countries steel projects have been postponed in order to limit the expansion of external debt.

For developing countries with small markets, the concept of mini-steelworks has been actively explored by UNIDO. A number of such plants were set up in the late 1970s and early 1980s based on the direct-reduction process and supplies of natural gas. The direct reduction process has lost appeal because of the rising price of natural gas, but it may become more attractive if gas prices follow the fall in oil prices. Direct reduction plants may also be established in the future using ordinary coal as well as processed coal.

There have been some major improvements in steel manufacturing technology in recent years. Many developing countries will use high-power electric furnaces for their new plants, this process already accounting for more than 30 per cent of steel production in the United States and more than 50 per cent in Europe. The most important development in the 1970s was the introduction of the continuous casting process, first in Japan, but now more widely used in Europe and the United States, and in the Republic of Korea and Taiwan Province of China. Finally, the steel industry is now using computers and automation systems to programme and produce small batches of products tailored precisely to the quality and specifications required by each customer, rather than batch production for inventory. Developing countries, particularly exporters, will need to consider these rapid changes in technology in making their plans for steel plants to be completed in the early 1990s.

*See the reports of the First, Second and Third Consultations on the Iron and Steel Industry (ID/WG.243/6/Rev.1, ID/224 and ID/291).

22. *Non-ferrous metals (ISIC 372)*

Smelting and refining non-ferrous metals including production of alumina from bauxite
Production of ingots, bars, rods, tubes, pipes, wires, castings and extrusions

(a) *Short-term outlook*

The output of the industry processing non-ferrous metals in developing countries is expected to increase by 5.5 per cent in 1986 and 4.3 per cent in 1987, compared with 4.1 per cent in the period 1980-1984.

The industry is heavily concentrated in Latin America, which accounts for 70 per cent of the output of the South. In this region, output is expected to increase by 4.8 per cent in 1986 and 3.1 per cent in 1987. Rapid growth is forecast for South-East Asia (9.5 per cent and 8.0 per cent), although this is slow compared with the years 1983 and 1984. Tropical Africa suffered a long decline from 1970 to 1978 in this industry. The recovery has been uneven, and only a small increase in output is expected. Both the Indian Subcontinent (7.5 per cent) and North Africa and West Asia (4.4 per cent) are forecast to continue their performance of the recent past in this industry.

The outlook is for an annual growth of 2.8 per cent in 1986 and 2.0 per cent in 1987 in the refining of non-ferrous metals in the North, where most of the output of the industry is consumed. This is less than half of the growth achieved during the recovery of 1983-1984.

(b) *Present situation*

The refining of non-ferrous metals is concentrated in 10 developing economies.** Chile is the largest producer of refined copper in the South, followed by Zambia, Peru and Zaire. Brazil is the South's largest producer of aluminium, followed by Venezuela, India, Argentina, Ghana and Egypt. Mexico is the largest producer of refined lead and zinc in the South, followed by Brazil and Peru, while the largest producers of tin in the South are Malaysia, Indonesia, Bolivia, Brazil and Nigeria.

World output of refined copper increased by 2.3 per cent between 1980 and 1984. To rebuild inventories, a further 2.8 per cent increase in 1985 is expected to be followed by a small decline in output in 1986. Production capacity is being expanded in both Chile and Peru.***

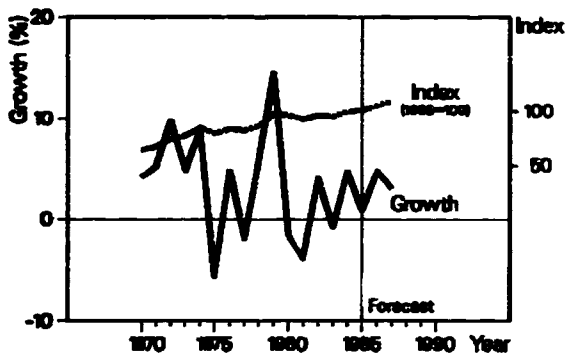
World production of primary aluminium regained its 1980 level in 1984 after two very bad years in 1982 and 1983. Although world consumption increased by 1.0 per cent in 1985, production was cut back 2.3 per cent to reduce stocks. An increase of 4.0 per cent is expected in 1986, and the industry will then be operating at about 85 to 90 per cent capacity. The market price of aluminium in 1985 was below the cost of electricity supplied to many plants in Japan, as a

**These economies are Argentina, Brazil, Chile, China (Taiwan Province), India, Mexico, Peru, the Republic of Korea, Turkey and Venezuela.

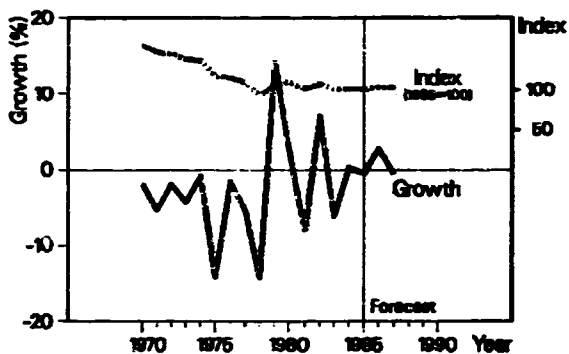
***See *Metals Analysis and Outlook*, No. 25 (London, Metals and Mineral Publicists Limited, 1985).

ISIC 372: Non-ferrous metals
(Value added in constant 1980 prices)

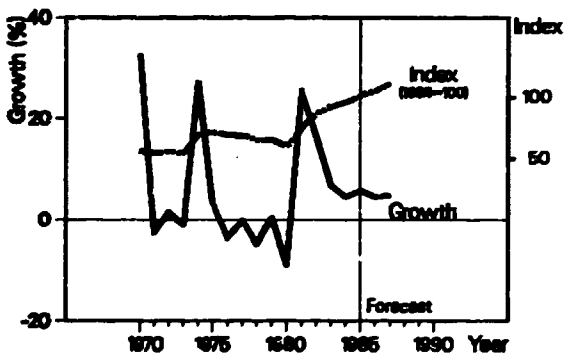
Latin America



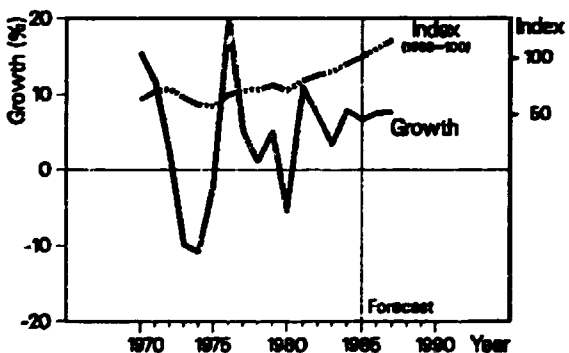
Tropical Africa



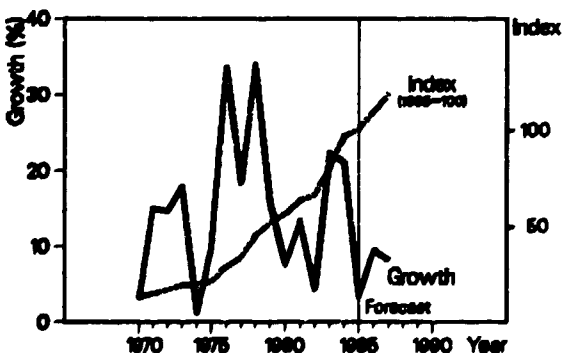
North Africa and West Asia



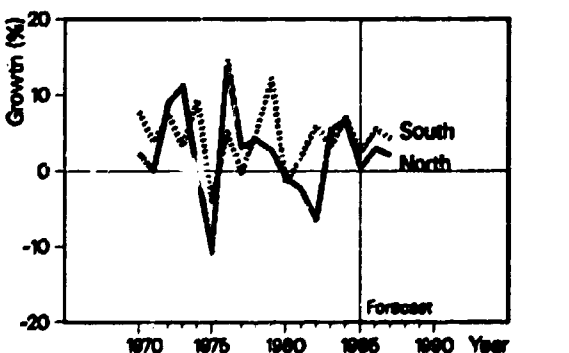
Indian Subcontinent



South-East Asia



North and South



Source: United Nations Industrial Statistics, estimates and forecasts by UNIDO/S/GLO.

consequence of which output was cut back by 80 per cent. There have also been cutbacks in production in North America and Western Europe. Since these regions produce, respectively, 40 per cent and 20 per cent of world output, this has helped to improve the capacity utilization of the industry and steadied prices. Developing countries account for 12 per cent of world aluminium production. Major expansions of capacity in 1986 occurred in France and Australia.

World production of lead fell by 3 per cent between 1980 and 1984, and consumption and production over the period 1985-1987 are expected to be at much the same level as in 1984. Mexico and Peru managed to increase their output in 1985, and there is a plan to install new capacity in the Republic of Korea by 1989. Refining capacity may continue to be located close to the main consumer countries (Western Europe, North America, and Japan).*

World production of zinc rose by 2.4 per cent per annum between 1980 and 1984, but is not expected to increase in the period 1985 to 1987. China is developing its zinc refining industry and reducing the need for imports. Thailand brought a new plant on stream in 1984 and the Republic of Korea is expanding capacity. Mexico has additional capacity which could be used to increase output in 1986 and 1987.

World production of tin greatly exceeded consumption in the period 1980 to 1984, and in 1984 production was 12 per cent below the 1980 level. When the full extent of the large stocks accumulated became apparent at the end of 1985, the London market was closed and the price of tin fell sharply when dealings recommenced.

Transnational corporations have played a major role in the development of the non-ferrous metals industry. In the tin industry developing countries have, however, made significant advances in increasing their control over extraction and smelting. By 1981, developing countries produced 83 per cent of the world's tin concentrates outside the centrally planned countries. They have developed a capacity to smelt 90 per cent of the extracted tin concentrates, compared with 50 per cent in 1960.

There has been a similar change in the world copper industry. The share of the seven largest transnational corporations in world mining production has fallen from 60 per cent in 1960 to 23 per cent in 1981. Today developing countries refine locally over half of their copper output. In 1984 Zambia refined virtually all its copper, Chile close to 80 per cent, Peru 64 per cent and Zaire 30 per cent.

The aluminium industry outside the centrally planned economies is still dominated by six large transnational corporations. In 1982, these six companies owned 46 per cent of world bauxite capacity, 50 per cent of alumina capacity and 44 per cent of aluminium capacity. Other large, more diversified transnational corporations own a further 20 per cent of capacity at the three stages of production, so that the total share of transnational corporations in world production outside the centrally planned countries was 77 per cent for bauxite, 87 per cent for alumina and 83 per cent for aluminium.

*See *Annual Review of the World Lead/Zinc Industry 1985* (London, Shearson Lehman Brothers Limited, 1985).

(c) *Long-term prospects*

Although world demand for non-ferrous metals is not expected to increase very fast, there should be a steady growth in demand for most metals in developing countries. Aluminium is required for construction, lead for batteries, zinc for galvanizing and brass production, and tin for metal containers. Demand in all these end-uses expands as the industrial base broadens.

Developing countries already process a major part of the metals they produce. The location of major additions to capacity in the future should be close to where consumption is growing, and that means in developing countries rather than in the North.

23. *Metal products (ISIC 381)*

Cutlery, hand tools, general hardware

Furniture, fixtures primarily of metal

Structural metal products such as metal doors and windows, metal sections in ships, prefabricated components for bridges and boilers etc.

Other fabricated metal products such as metal cans, drums, wire and cable, rods, valves and pipe fittings

(a) *Short-term outlook*

The output of the metal products industry in developing countries is expected to increase by 4.1 per cent in 1986 and 1987.

Output fell in 1981 and 1982 in all regions of the South except North Africa and West Asia. Latin America and South-East Asia suffered another recession in 1985, and these two regions are not expected to recover as strongly as they did in 1984. Latin America is forecast to grow by 3.6 per cent and 3.2 per cent and South-East Asia by 5.1 per cent and 4.4 per cent in 1986 and 1987. The Indian Subcontinent is expected to continue its recovery with growth of 7.4 per cent, and in Tropical Africa slow growth is expected (1.2 per cent and 1.7 per cent). North Africa and West Asia, which had its peak performance during the recession of other regions of the South, is not expected to sustain its high level of growth; the forecast is for an average of 4.4 per cent growth in 1986 and 1987.

The output of the metal products industry in the North is expected to grow by 2.5 per cent in 1986 and 2.1 per cent in 1987, compared with 2.7 per cent in 1985 and 6.2 per cent in 1984, when output recovered from the decline of 1980-1983.

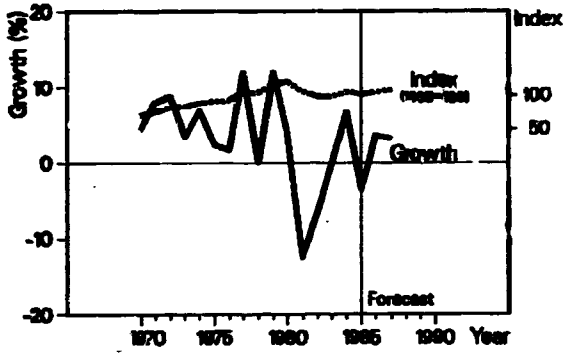
(b) *Present situation*

Ten developing economies** accounted for almost 78 per cent of the output of the South in this industry in 1980, and Argentina, Brazil and Mexico produced 50 per cent of that output.

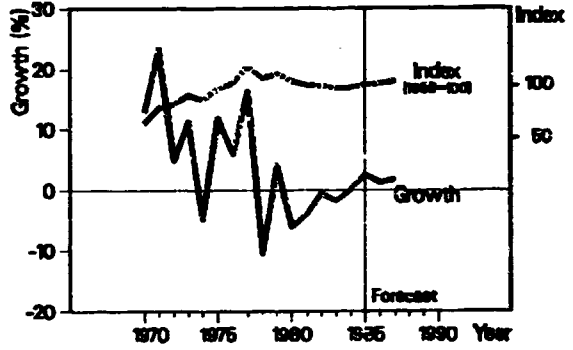
**These were Argentina, Brazil, China (Taiwan Province), Hong Kong, India, Mexico, the Philippines, the Republic of Korea, Turkey and Venezuela.

ISIC 381: Metal products
 (Value added in constant 1980 prices)

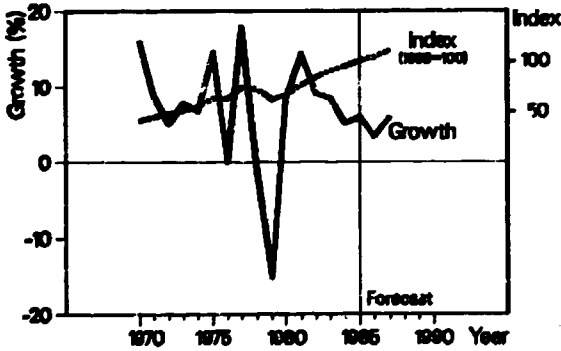
Latin America



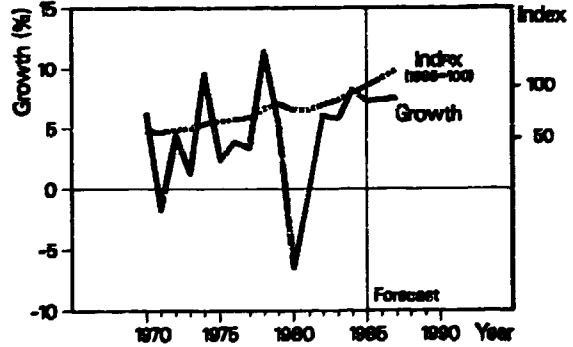
Tropical Africa



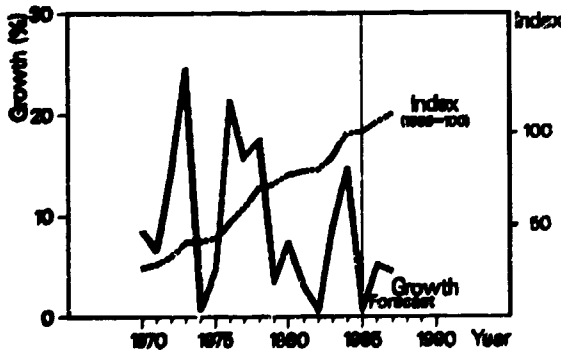
North Africa and West Asia



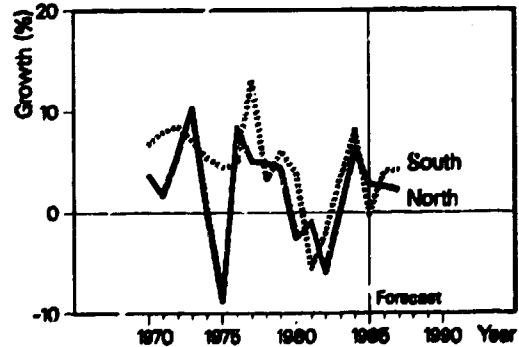
Indian Subcontinent



South-East Asia



North and South



Source: United Nations Industrial Statistics, estimates and forecasts by UNIDO/IS/GLO.

Many developing countries import a major part of their requirements of metal products. In the South as a whole such imports amounted to \$11.6 billion in 1980, accounting for about one third of the South's total consumption of metal products. Latin America is largely self-sufficient, but imports are important in all other regions, and North Africa and West Asia account for 55 per cent of the imports of the South. Imports have increased faster than production, reaching \$14 billion in 1983. The largest categories of imports of the South are metal structures, other fabricated metal products and base metal products (see table 2.7).

Table 2.7. Metal products imported by developing countries, 1979, 1980 and 1983
(Billions of dollars at current prices)

Product	1979	1980	1983
Cutlery	0.28	0.30	0.24
Hand tools	1.52	1.30	1.66
Metal structures	2.85	4.16	4.71
Metal containers	0.77	0.71	1.16
Wire and cable	0.59	0.66	0.72
Household stoves etc.	0.59	0.66	0.72
Manufactures of base metal	0.94	1.02	3.07
Plumbing, heating and lighting equipment	0.81	0.92	1.13
Total (excluding metal furniture)	10.98	11.62	13.58

Source: UNIDO data base.

(c) Long-term prospects

The development of this industry is usually postponed until local supplies of a broad range of steel products become available. In the long term, however, nearly all developing countries will need to develop an industry producing a limited range of metal products. The construction industry requires a local capability to manufacture metal structures. The extent to which local production of other more complex products is developed will depend on many factors. A larger number of developing countries should eventually be capable of emulating the performance of Argentina, Brazil, India and Mexico, which have established a substantial industry manufacturing a wide range of metal products.

24. Non-electrical machinery (ISIC 382)

- Engines and turbines
- Agricultural machinery and equipment
- Metalworking and woodworking machinery
- Special industrial machinery
- Office, computing and accounting machinery
- Other machinery and equipment

(a) Short-term outlook

The output of the non-electrical machinery industry in developing countries is expected to increase by 6.1 per cent in 1986 and by 5.4 per cent in 1987. This

implies that the South will be able to achieve a growth almost as high as in 1984, when it recovered from the deep recession which occurred between 1981 and 1983.

This development is mainly due to Latin America, which produced two thirds of the output of the South in 1980. In this region, output is expected to increase by 4.6 per cent in 1986 and 3.7 per cent in 1987, growth which is only moderate compared with the early 1970s. Output is expected to increase rapidly on the Indian Subcontinent (7.8 per cent in 1986 and 8.0 per cent in 1987) and in South-East Asia (8.2 per cent and 6.5 per cent). In the last two regions the recession at the beginning of the 1980s was not as severe as in Latin America. Since 1980 growth in North Africa and West Asia has been considerably lower than in the previous decade, and growth forecasts of 5.7 per cent and 6.3 per cent are consistent with this trend. The output of Tropical Africa in industry has hardly grown since 1975, but it is expected to continue the mild recovery from the 1981-1984 recession with growth of 2.3 per cent and 3.0 per cent.

In the North, the growth of output of non-electrical machinery is expected to be 5.0 per cent in 1986 and 4.3 per cent in 1987. These forecasts assume that the recovery in capital goods output which started in the United States in 1984, when output in this industry increased by 20 per cent, will be sustained and spread to Japan and Western Europe, where output in 1984 was still below the 1980 level in many countries.

(b) Present situation

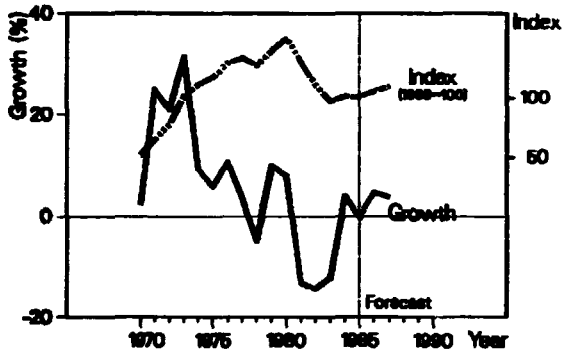
This industrial branch, which manufactures industrial machinery and "machines to make machines", comprises the heart of the capital goods industry. A country can only be classified as industrialized when it can manufacture a major part of the machinery and equipment it requires for its own industry. This industrial branch accounted in 1980 for between 10 per cent and 15 per cent of manufacturing output in the largest industrialized countries.

In developing countries the contribution of this industrial branch in 1980 was highest in Brazil (11 per cent). In Argentina, India, Mexico and the Republic of Korea the industry accounted for 5 per cent to 6 per cent of manufacturing value added; its contribution was between 3 per cent and 4 per cent in Egypt, Zambia and Zimbabwe. In 1980, four developing countries (Argentina, Brazil, India and Mexico) accounted for more than 70 per cent of the output of developing countries, and four other economies (China (Taiwan Province), the Republic of Korea, Singapore and Turkey) for an additional 15 per cent.

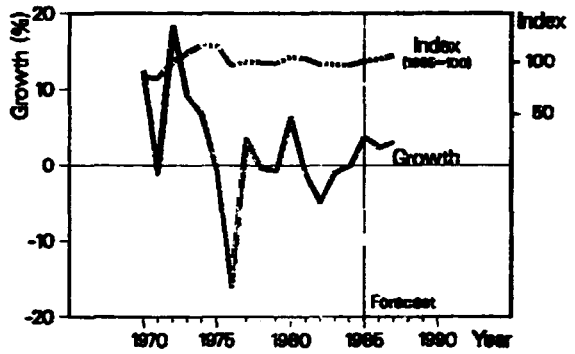
Although Brazil and India and, to a lesser extent, Argentina and Mexico have reached a considerable degree of self-sufficiency in this industry, all other developing countries rely almost entirely on imports. The total imports of the South have increased from \$45 billion in 1979 to \$60 billion in 1983. Approximately one third of the imports are of a general type—mechanical handling equipment, heating and cooling equipment, pumps and other parts of machines. Imports of special industrial machinery and machine tools have grown slowly because of the recession, but

ISIC 382: Non-electrical machinery
(Value added in constant 1980 prices)

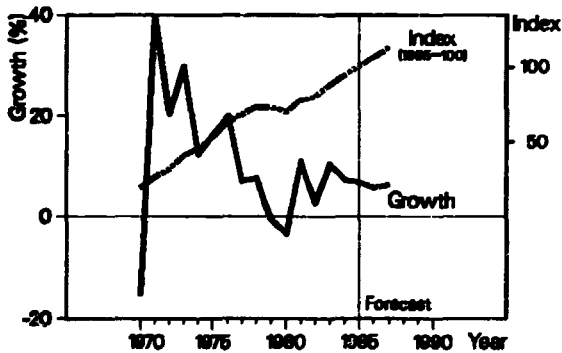
Latin America



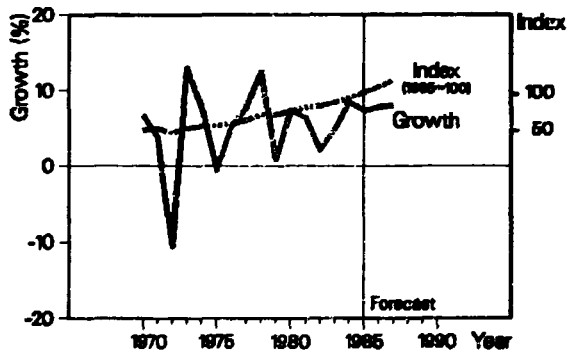
Tropical Africa



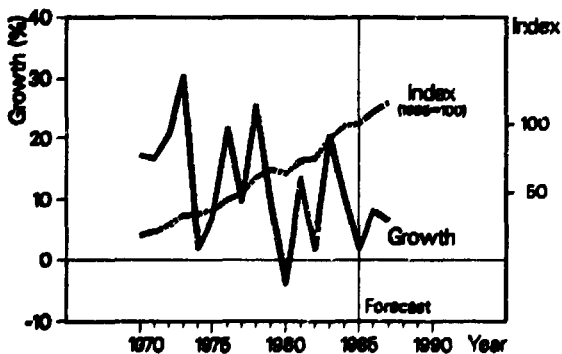
North Africa and West Asia



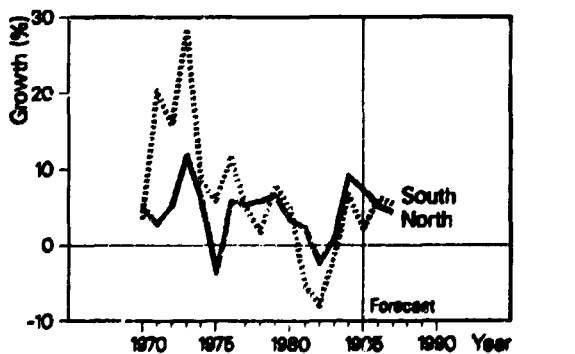
Indian Subcontinent



South-East Asia



North and South



Source: United Nations Industrial Statistics, estimates and forecasts by UNIDO/IB/3LD.

imports of office and data-processing equipment increased threefold between 1979 and 1983.

Developing countries have recently begun to penetrate the markets of six large developed market economies (France, Germany, Federal Republic of Italy, Japan, United Kingdom and United States). Their exports doubled in value from \$2 billion in 1980 to almost \$4 billion in 1983, when they won a 5.8 per cent share of total imports of \$67 billion. However, more than 75 per cent of those exports were to the United States, the imports of which accounted for 33 per cent of the imports of the six countries. For developing countries whose currencies have appreciated in terms of the United States dollar, the rapid progress made between 1980 and 1983 will be more difficult to sustain.

The importance of developing a capital goods industry has been stressed at two UNIDO Consultations on the Capital Goods Industry and at the two Consultations on Agricultural Machinery.* The first two Consultations considered the potential for the development of the capital goods industry and means of international co-operation for the development of capital goods production, as well as conditions for entry into the sector and the development of the electric power equipment sector. At the Consultations on Agricultural Machinery, attention was focused on formulating a strategy for the sector and for basic facilities needed in the production and local assembly of different equipment, as well as on the scope for international co-operation in production, the possibilities for integrated manufacture of agricultural machinery and capital goods, and model contracts for the sector.

World sales of agricultural machinery in 1980 have been estimated at \$22 billion if the centrally planned economies, accounting for 20 per cent of the world tractor output and 25 per cent of the world output of combine harvesters, are excluded. Developing countries, which account for almost 45 per cent of the world's arable land, accounted for only 12 per cent of world output of tractors in 1978 and only 5 per cent of world output of combine harvesters. Tractors were produced in 18 developing countries in 1979. Five countries, namely Argentina, Brazil, India, the Islamic Republic of Iran and Mexico, accounted for the major share of this output.

The use of agricultural machinery has been carried further in Latin America than in other developing regions. In 1982 the region had a stock of almost 900,000 tractors; 70 per cent of these were in Argentina, Brazil and Mexico, and these three countries produced 100,000 tractors of over 10 horsepower in 1976. But output fell to 50,000 tractors in 1982 before recovering in recent years. The region has about 130,000 self-propelled harvesters and stationary threshing-machines, of which Argentina and Brazil are the main producers. In the mid-1970s, imports of agricultural machinery met 10 per cent of Argentina's requirements, 30 per cent of Brazil's and 50 per cent of Mexico's. These countries are now more self-reliant, but the Andean group of countries still relies heavily on imports.

*See the reports of the First and Second Consultations on the Capital Goods Industry (ID/276 and ID/338) and the reports of the First and Second Consultations on the Agricultural Machinery Industry (ID/285 and ID/307).

Transnational corporations have played an active role in the development of local production of agricultural machinery. However, they have been slow to develop product designs that are adapted to the needs of the small farms found in most developing countries. Independent local manufacturers that introduced smaller and cheaper tractors in countries such as India, the Philippines and Thailand have been successful.

Machine tools account for between 2 per cent and 8 per cent of the output of this industrial branch in individual countries. World-wide sales reached almost \$27 billion in 1980, but in 1984 they were still 23 per cent below the 1980 level [69]. Japan has increased sales rapidly in the last 10 years and is now the world's largest producer. The introduction of flexible manufacturing systems is expected to bring a sharp increase in sales in 1986 and 1987.

Sales of plant and equipment for specific industries is a major part of the output of this industrial branch. Some developing countries, in particular Brazil and India, have developed their own capacity to design and engineer industrial plants, and with it the capacity to manufacture the equipment required locally. The steep fall in expenditure on capital goods in Latin America between 1980 and 1983 and the reduced level of investment in other developing countries affected by heavy debt burdens have reduced demand for new industrial plant in most industries. But by 1985 demand was beginning to increase, and this part of the engineering industry should grow more rapidly during the period 1986-1990. Nevertheless, until developing country suppliers can demonstrate the special features and reliability of their equipment, a heavy reliance on imports from developed countries will continue.

A number of Latin American countries have recognized that special efforts are needed to stimulate the development of the capital goods industry. In Mexico, Nacional Financiera, assisted by UNIDO, examined the potential for expanding Mexico's engineering industry. Ecuador established the Comisión de Rienes de Capital in 1976, and it has been assisted by UNIDO. The Capital Goods Corporation of Chile was established in 1966 by eight private companies. The National Council for the Development of the Capital Goods Industry was established in 1980 in Venezuela, where the Government promotes the industry through a buy-national policy, preferential terms on project financing and fiscal incentives. UNIDO and the United Nations Conference on Trade and Development have assisted by examining demand, projects, manpower training and trade opportunities. UNIDO has also assisted in planning the development of the capital goods industry in Colombia, Pakistan and Turkey.

(c) *Long-term prospects*

The mechanical engineering industry requires a high level of human skills and continuing research and development. The successful manufacture of a wide range of engineering products by large countries like Brazil and India shows that this industry can be developed progressively over time where the local market is large enough to support its development. However, very few industrialized countries manu-

facture the complete range of machinery and equipment, and inter-industry trade is extensive in this industry. Developing countries will need to be selective in the range of machinery and equipment that they plan to produce. For countries with small markets, subregional co-operation will be a precondition for broadening the range of engineering products that warrant local production.

Starting from a low base level of production, output of mechanical engineering products was one of the fastest-growing sectors in the 1970s. The recession years reduced demand in most countries, but expansion at a fast rate should be resumed in the period 1985-1990. The stimulus will come from the need both to increase capacity and to modernize existing industrial plant.

25. *Electrical machinery (ISIC 383)*

Equipment for generating and distributing electric power

Radio, television sets, electronic components

Household electrical appliances

Other electrical apparatus such as lighting equipment

(a) *Short-term outlook*

The output of the electrical machinery industry in developing countries is forecast to increase by 6.1 per cent in both 1986 and 1987. Thus the South is expected to recover as strongly from the 1985 recession as it did from the 1982 recession.

Output in Latin America is expected to show moderate increases of 2.6 per cent in 1986 and 3.3 per cent in 1987, continuing its recovery from a 30 per cent decline in output between 1980 and 1983. Though forecast growth for South-East Asia is high (8.1 per cent and 7.5 per cent), the recovery from the 1985 recession is not expected to be as strong as that following the 1982 recession. In the Indian Subcontinent, growth of output is expected to rise to 6.0 per cent in 1986 and 6.8 per cent in 1987, which is around the average achieved in the last decade. Growth is forecast to be high in North Africa and West Asia (6.2 per cent and 7.1 per cent), although this represents a slowdown compared with the period 1981-1983. Moderate growth of 2.1 per cent and 3.3 per cent for Tropical Africa still represents continued improvement over the recession of 1981-1983.

The electrical machinery industry is, together with plastics and professional and scientific equipment, the fastest-growing industry in the North. Between 1980 and 1985, output increased by 6.7 per cent per annum; it is expected to increase by 6.5 per cent in 1986 and by 5.9 per cent in 1987.

(b) *Present situation*

The electrical machinery industry contributes 6 per cent of manufacturing output in the South, compared with 9 per cent in the North. But in 1980 it made a much larger contribution in the leading exporting

economies of Singapore (28 per cent), Malaysia (11.5 per cent), the Republic of Korea (11.0 per cent) and Hong Kong (7.5 per cent).

Electronics, including television sets and radios, accounted for over half of the output of the electrical machinery industry in most countries in 1980; the proportion was 60 per cent in the United States and 50 per cent in Japan. In developing countries, electronics contributed as much as 80 per cent (Malaysia), 75 per cent (Singapore) and 68 per cent (the Republic of Korea), countries from which a significant part of the electronics output was exported.

Ten developing economies produced 84 per cent of the South's output of electrical goods in 1980. The five economies with a diversified industry—Brazil, China (Taiwan Province), India, Mexico and the Republic of Korea—produced 60 per cent of the output of the South. These economies produce a full range of heavy electrical equipment (electricity generators, transformers, switchgear) as well as electronic goods, television sets and radios. The other major contributors are the leading exporters of television sets, radios and electronic components: Singapore, Hong Kong and Malaysia.

Transnational corporations have played a major role in establishing plants in developing countries that produce heavy electrical equipment such as electric power generators, transformers and switchgear. Transnational corporations are also engaged, to a lesser extent, in the manufacture of household appliances, standardized electrical products and electrical components. Most developing countries continue to welcome foreign investment in some of these fields because of the sophisticated technology required, the fast rate of technical change, the broad range of products manufactured and the large capital requirements for the manufacture of more complex equipment.

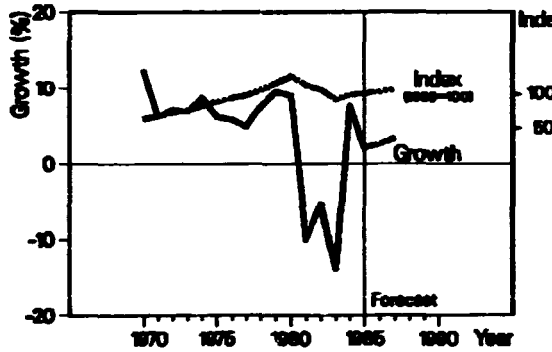
On the other hand, transnational corporations are less welcome when they purchase existing enterprises. For example between 1966 and 1974, transnational corporations made 47 acquisitions in Brazil. As a result they accounted for 79 per cent of the sales of this branch of industry by 1977, and new policies had to be introduced to prevent them from obtaining a dominant position in other branches of the engineering industry ([30], [70]).

The development of the electrical machinery industry has reduced the need for imports, but developing countries as a group still import about one third of their requirements. Imports rose in value from \$28 billion in 1979 to almost \$44 billion in 1983. The largest category of imports, valued at \$14 billion in 1983, was equipment for electric power generation and distribution. Imports of telecommunications equipment and electronic components such as transistors each cost \$9 billion in 1983.

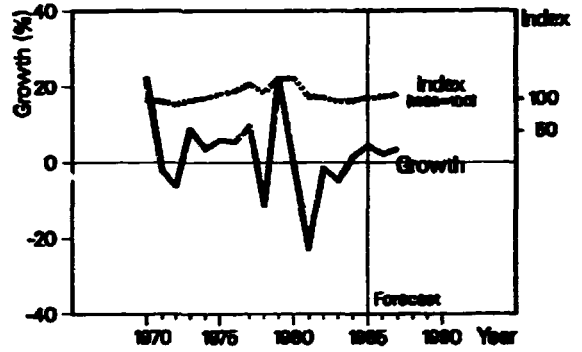
Six developing economies—Brazil, Hong Kong, Malaysia, Mexico, the Republic of Korea and Singapore—have been successful in exporting electronic goods, as opposed to heavy electrical equipment. In 1980, these six economies exported 0.8 billion dollars' worth of television receivers, 1.7 billion dollars' of radio receivers, 2.0 billion dollars' of telecommunications equipment and 4.0 billion dollars' of transistors, microcircuits etc. Nevertheless, the value added by

ISIC 383: Electrical machinery
(Value added in constant 1980 prices)

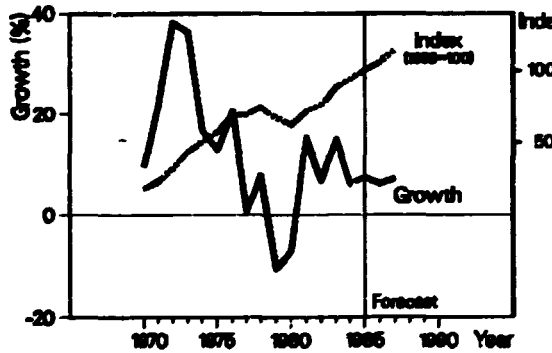
Latin America



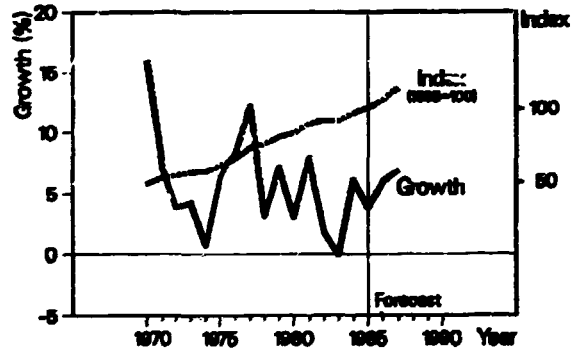
Tropical Africa



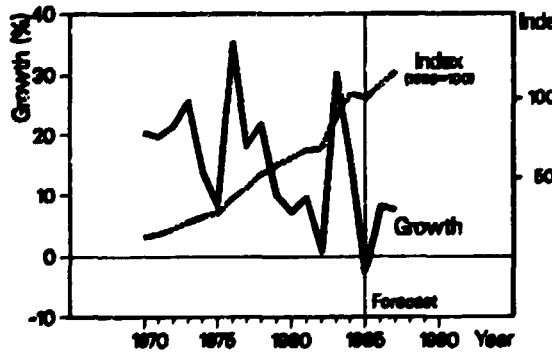
North Africa and West Asia



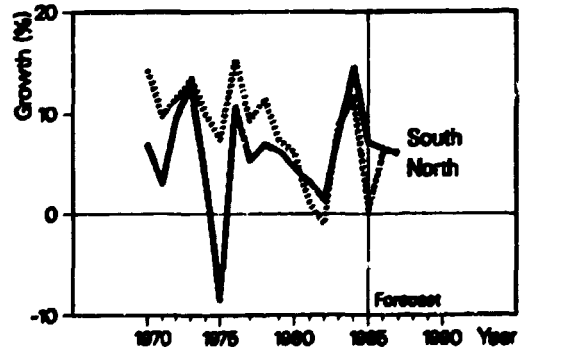
Indian Subcontinent



South-East Asia



North and South



Source: United Nations Industrial Statistics, estimates and forecasts by UNIDO/IS/GLO.

domestic industry was often very low, about 20 per cent in the case of transistors and microcircuits.

Transnational corporations have transferred parts of the process of manufacturing, assembling and testing semiconductors to developing countries. A survey of leading producers in 1979 showed that they had 87 ventures in developing countries; 60 were located in South-East Asia and most of the rest in Mexico [60]. The Republic of Korea, however, is the only developing country to have an independent capacity to design and manufacture semiconductors. Companies in the Republic of Korea have invested heavily in research and development, and exports of semiconductors, valued at \$1 billion in 1985, are expected to grow to \$3 billion in 1988 and to \$12 billion in 2000, when the world market is expected to be worth about \$300 billion [71]. Other developing countries found in 1984 and 1985 that their industry was vulnerable to the development of excess world capacity in semiconductors, the tremendous pace of technical change and the resulting sharp drop in prices.

UNIDO has assisted in the introduction of semiconductor devices and the production of printed circuit boards in India, and advice has been given on the application of microprocessors to industrial establishments in Bulgaria. UNIDO technical services have been provided for local manufacture of electronic components in India, and for the repair and maintenance of electrical, electronics and optical equipment in Viet Nam. Electronic instruments required for agro-based industries and the dairy industry have been developed in a project in India, and improvements in the manufacture of batteries have been suggested in Egypt.

The manufacture of electric power equipment was considered at the Second Consultation on the Capital Goods Industry.* The meeting analysed the production capabilities of 11 developing countries. Only two of these manufactured the full range of power equipment, which UNIDO divided into five levels of technical sophistication and complexity. The participants stressed the importance of "unpackaging" the technology offered to developing countries and the need for increased regional trade to create large markets for new manufacturing facilities.

(c) *Long-term prospects*

The long-term outlook for demand for electrical machinery will reflect high past growth trends and the opportunity to reduce the South's level of reliance on imports, which covered approximately one third of its requirements in 1980. Hence the growth in output of this industry could continue at the 6 per cent rate forecast for 1986 and 1987 or even higher.

Many developing countries are likely to continue to rely on imports of heavy electrical equipment. The more sophisticated electricity generators and nuclear power plants will continue to be manufactured in the North. But all other types of electrical goods can be manufactured in the South, and increased South-

South trade can be expected to reduce reliance on imports from the North.

Some developing countries will continue to be important actors in the world supply of electronic components, television sets and radios. Because of the rapid pace of technological development, further progress will depend either on the development of independent national capabilities (as in the Republic of Korea) or continued co-operation with transnational corporations.

26. *Transport equipment (ISIC 384)*

Shipbuilding, ship repair
Railroad equipment
Motor vehicles
Motor cycles, bicycles
Other transport equipment

(a) *Short-term outlook*

The developing countries' output of transport equipment is expected to increase by 4.0 per cent in 1986 and 3.5 per cent in 1987.

The two major producers of the South, Latin America (60 per cent) and South-East Asia (20 per cent) suffered severe recessions in 1982 and again in 1985. But while output in Latin America declined by more than 30 per cent between 1980 and 1983, in South-East Asia production remained constant. This difference is reflected in the forecasts. Recovery is expected to be weaker in Latin America (2.3 per cent and 1.1 per cent) than in South-East Asia (6.2 per cent and 5.0 per cent). Rapid growth is forecast for the Indian Subcontinent (5.4 per cent and 6.1 per cent) and North Africa and West Asia (5.8 per cent and 6.6 per cent), where growth, although high, will not match the very strong recovery of 1981-1983. In Tropical Africa, output has stagnated since the extraordinary expansion around 1976 and is forecast to continue at a low growth of around 1.0 per cent.

In developed countries, output is expected to increase by 3.7 per cent in 1986 and 3.2 per cent in 1987, which is less than during the recovery of 1983-1985.

(b) *Present situation*

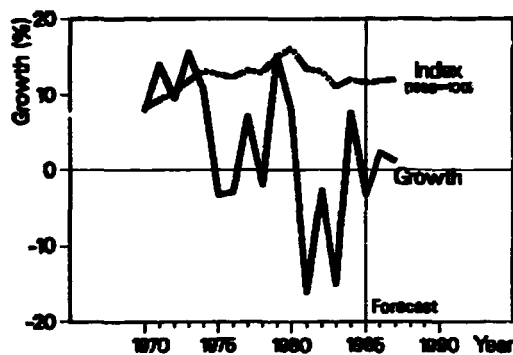
The transport equipment industry makes an important contribution to total manufacturing output in both the South (6.0 per cent) and the North (9.0 per cent). In 1980 this industry employed 1.7 million workers in the South and 9.5 million in the North, and used twice as much labour per unit of output in the South.

The output of motor vehicles and ships accounts for most of the output of the sector, even though production of railway equipment, motor cycles and bicycles is substantial in some developing countries. Aircraft production is mainly an industry of the North, with only four developing countries (Argentina, Brazil, India and Indonesia) producing aircraft.

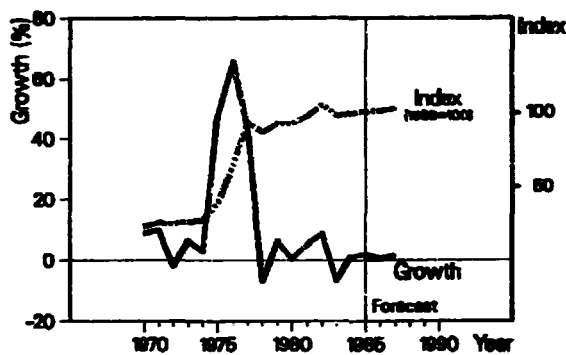
*See the Report of the Second Consultation on the Capital Goods Industry, with Special Emphasis on Energy-related Technology Equipment (ID/338).

ISIC 384: Transport equipment
(Value added in constant 1980 prices)

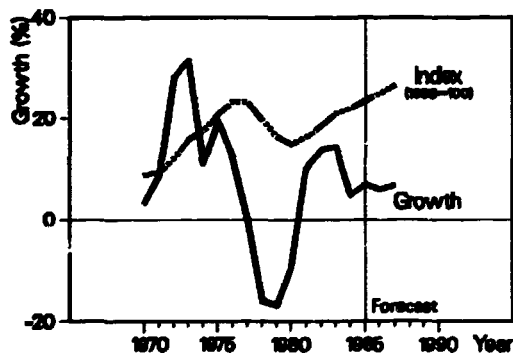
Latin America



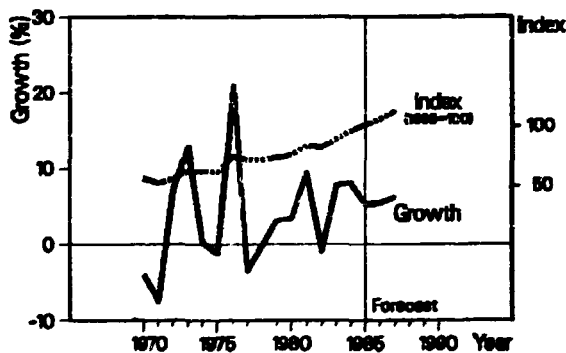
Tropical Africa



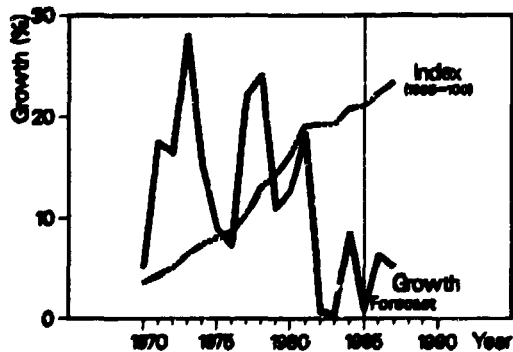
North Africa and West Asia



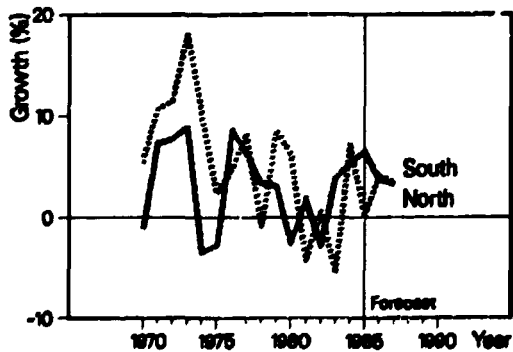
Indian Subcontinent



South-East Asia



North and South



Source: United Nations Industrial Statistics, estimate and forecasts by UNIDO/IE/GLO.

Ten developing economies accounted for 83 per cent of the output of the South in 1980, with Brazil accounting for 20 per cent and Argentina and Mexico for a further 35 per cent. These three countries manufacture passenger cars, trucks and buses and railway equipment, and Brazil also has a substantial shipbuilding capacity. In other developing countries, motor vehicles contribute between 50 per cent and 95 per cent of the output of the branch, the main exceptions being the Republic of Korea and Singapore, where there is a substantial shipbuilding industry.

There is considerable excess capacity in the world shipbuilding industry because world trade has grown much slower than expected. Orders for new vessels have increased little from the level of the mid-1970s. Against the trend, the Republic of Korea has built up a large merchant fleet and become, after Japan, the world's second largest builder of new vessels. In 1984, the Republic of Korea won 15.5 per cent of the world's new ship orders. It has additional capacity, but in the current difficulties capacity has been cut back and expansion plans cancelled. Singapore, at the centre of world trade routes, also developed its shipyards in the late 1970s. This played a major part in Singapore's industrial growth up to 1982, but capacity has recently been reduced and a third of the work force have lost their jobs.

The tonnage of merchant ships in Latin America increased by 130 per cent in the 1970s. It is expected to increase by 4 per cent per annum in the 1980s, a third of the demand being for the replacement of ships more than 20 years old. The largest increase is expected in bulk carriers and common cargo ships.

A few developing countries produce railway locomotives. India is the South's largest producer of electric locomotives, followed by Brazil and Turkey, and the Republic of Korea and Turkey produce diesel locomotives. India produces more railway wagons and vans than all the other developing countries combined, and Argentina, Brazil, Cuba, Ecuador, the Republic of Korea and Turkey are the other major producers. There are no producers of railway equipment in Tropical Africa.

The demand for railway equipment in the Latin America region for the period 1980-1990 has been estimated as follows: 4,000 locomotives, 80,000 freight cars, 500 trail cars and 500 electric cars. Brazil accounts for more than half the demand and Argentina and Mexico for over a third; in other countries rail transport is less well developed.

World production of motor vehicles increased from 35.8 million vehicles in 1972 to 38.4 million vehicles in 1980. In that year, developing countries produced or assembled about 1.8 million passenger cars and 1.2 million trucks and buses, or less than 8 per cent of world production. Their share fell during the period 1980-1985, because the peak production level of 1980 was not reached in Latin America again until 1985, when Brazil exported 200,000 passenger cars. Assembly operations in North Africa and West Asia and Tropical Africa have been hit by a shortage of foreign exchange. Substantial progress in increasing production in Asia has been achieved mainly by China (Taiwan Province), India and the Republic of Korea.

Imports of passenger cars and commercial vehicles by developing countries have therefore continued to rise. They increased from \$12 billion in 1979 to almost \$17 billion in 1983, while in the same period imports of parts and components increased from \$5.6 billion to \$8.6 billion. Exports of cars and components have also begun to increase. Brazil exported 1.8 billion dollars' worth of vehicles and components in 1984 and 1985, Mexico has a substantial two-way trade with the United States in cars and components, and the Republic of Korea will emerge in 1986 as a significant supplier of world markets.

The car industry in developing countries benefits from cheaper labour. In 1984 wage levels in manufacturing industry as a proportion of those prevailing in the United States were 9 per cent in Brazil, 10 per cent in the Republic of Korea and 13 per cent in Mexico. The Republic of Korea has adopted labour-intensive methods of assembly for its new car plants. At the same time, the motor vehicle industry in the North is shedding labour as it embraces automation more intensively than most other industries. Half the demand for robots is in the automobile industry, and a recent study estimated that world automotive industry may still need to reduce its labour force by a further 40 per cent [72].

Production and assembly of cars and trucks in developing countries has usually been based on co-operation with one of the leading transnational corporations [73]. This pattern is being followed in the major developments planned for the period 1986 to 1990. Volkswagen, Fiat and Ford will play a major part in the expansion of the industry in Brazil; Suzuki is the partner in the new plant in India that will produce 100,000 light vehicles; Mitsubishi is the partner in the plant in Malaysia that will produce 120,000 passenger cars; and Toyota is the partner in the plans of Taiwan Province of China to produce 300,000 passenger cars by 1992. More tentative projects to produce 20,000 vehicles in Algeria and 25,000 vehicles in Egypt also rely on such co-operation. There is a strong demand for motor vehicles in most developing countries. India's plans to double output by 1990 reflect the long-term potential for this industry in countries where demand has been suppressed by limited local availability.

Motor cycles and bicycles are widely used in developing countries. World output of motor cycles and scooters reached 13 million in 1980, with Japan producing half the world output. Developing countries in Asia produced 1.3 million, in Africa 0.1 million, and in Latin America 0.5 million. World production of bicycles reached 67 million in 1982, of which China produced 24 million and India 5 million. Other large-scale producers were Brazil (1.5 million), the Republic of Korea (0.7 million) and Pakistan (0.4 million).

Developing countries import most of their requirements for aircraft. These imports totalled \$9 billion in 1983, a substantial share of world aircraft sales. Producers in the United States and Western Europe are expected to remain the dominant force in large commercial aircraft production. Developing countries are expected, however, to continue to manufacture a limited range of mainly light and military aircraft.

UNIDO has provided technical assistance to shipyards in Turkey and Malaysia. A programme for small-scale boat building and repair for East African countries has been recommended by a regional meeting of experts, and UNIDO is co-operating with the Government of Norway in developing a programme on shipbuilding and offshore marine installations for developing countries.

UNIDO has examined the structure of the motor vehicle assembly industry and found that frequently too many different models are assembled to facilitate a high content of locally manufactured parts and components. The quality of automobile parts and components has been improved in Indonesia and India with UNIDO support. UNIDO has advised some developing countries on emission control standards for motor vehicles, and initiated technical discussions between the Union of African Railways and the Railway Union of Arab States and engineering companies in three Western European countries. A project for the development of existing facilities to manufacture railway wagons and railway equipment is under discussion with the West African Economic Community.

(c) *Long-term prospects*

Transport is a growth industry in developing countries and suppliers of road, rail, sea and air transport equipment will benefit. In particular, demand for both passenger cars and commercial vehicles is expected to increase rapidly. The markets of developing countries will be the fastest-growing markets over the next 15 years. They will attract a major share of the investment designed to raise production capacity. But policy will have to emphasize low costs of production as well as greater local content if they are to become substantial exporters to the highly competitive markets of the North.

Most developing countries strive to raise the local content of motor vehicle manufacture and increase exports of cars or components. Brazil has one of the most rigorous sets of requirements, and local content reached 85 per cent by 1982. Under Brazil's export promotion scheme, the four principal manufacturers have agreed to export almost 9 billion dollars' worth of vehicles between 1983 and 1989. In order to pay for imported components in Mexico, four manufacturers have set up engine plants and exports of engines rose to \$500 million in 1984. Other economies, such as China (Taiwan Province), India, Indonesia and the Republic of Korea have recognized the importance of strengthening the local industry that manufactures parts and components.

The outlook for the shipbuilding industry in developing countries is not so favourable. There is considerable shipping capacity available at present, sufficient to cope with the growth in world trade over the next few years. Most of the demand for new ships will be to replace old vessels in existing fleets and to supply developing countries that wish to establish or expand their own merchant fleets. Countries with competitive

shipyards, such as Brazil, the Republic of Korea and Singapore, expect to benefit from a revival in world demand when it comes, possibly at the end of the 1980s.

For producers of railway equipment, the outlook is for a slow increase in demand. Few new railways are being built and existing ones are suffering from competition of road carriers as road networks are improved in developing countries.

The demand of developing countries for aircraft is likely to continue to grow rapidly. While large intercontinental aircraft will continue to be supplied by United States and Western European producers, the fast-growing market for commuter-type aircraft will be more competitive. Brazil and Indonesia already produce commuter aircraft, and co-operation similar to that envisaged in agreements between Argentina and Brazil and Indonesia and Spain could be the pattern for accelerated development in the future.

27. *Professional and scientific equipment (ISIC 385)*

Medical and dental equipment
Radar and X-ray equipment
Instruments for measurement and control
Photographic, optical goods
Watches, clocks

(a) *Short-term outlook*

The output of professional and scientific goods in developing countries is expected to increase by 6.2 per cent in 1986 and by 6.7 per cent in 1987.

Most of the output of the South in this industrial branch is produced in South-East Asia (48 per cent) and Latin America (40 per cent). In South-East Asia, output is expected to increase by 7.3 per cent in 1986 and 1987, thus recovering strongly from two consecutive years of stagnation. In Latin America, the forecast increase is 4.8 per cent in 1986 and 6.1 per cent in 1987, further recovering from the long recession between 1980 and 1983. A similar improvement can be observed on the Indian Subcontinent (6.7 per cent and 7.2 per cent), while slower growth is expected in North Africa and West Asia (3.3 per cent and 4.0 per cent). Tropical Africa has very little production.

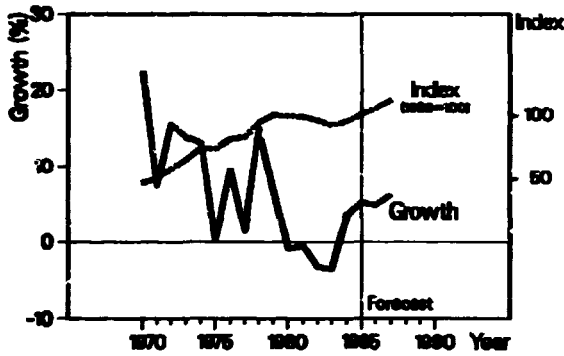
The output of professional and scientific goods in the North is expected to increase by 6.6 per cent in 1986 and 5.6 per cent in 1987. This compares with an estimated 6.9 per cent increase in 1985, and thus continues the strong growth of the industry since 1983.

(b) *Present situation*

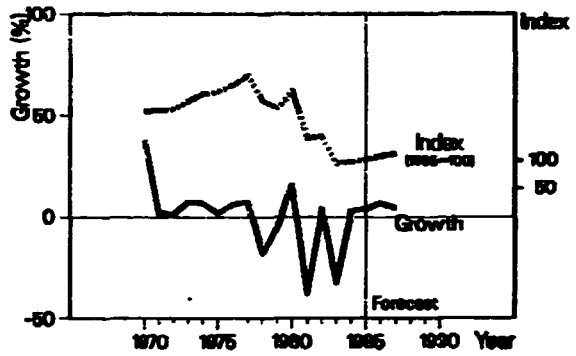
Industries producing professional and scientific equipment in the South still require substantial further development. This industrial branch is expected to contribute 0.6 per cent to the manufacturing output of the South in 1987, compared with 2.3 per cent in the

ISIC 385: Professional and scientific equipment
(Nete added in constant 1980 prices)

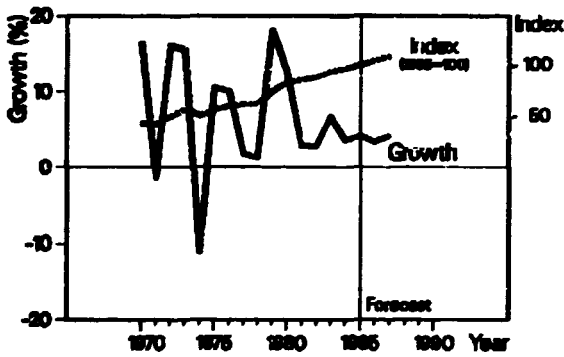
Latin America



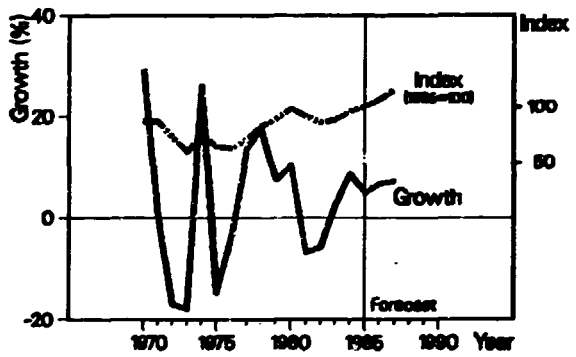
Tropical Africa



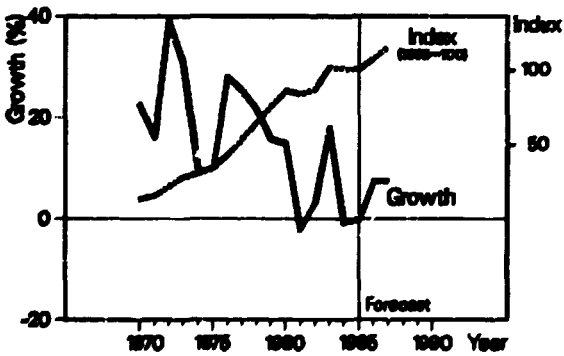
North Africa and West Asia



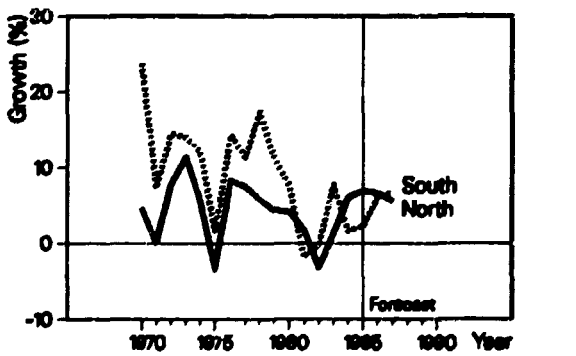
Indian Subcontinent



South-East Asia



North and South



Source: United Nations Industrial Statistics,
estimates and forecasts by UNIDO/IS/GLO.

North. Only in South-East Asia, where the contribution is 1.4 per cent, can this industrial branch be said to be reasonably well developed.

Seven developing economies account for 81 per cent of the output of the South in this industrial branch, namely Brazil (17 per cent), Hong Kong (16 per cent), Mexico (14 per cent), China (Taiwan Province) and the Republic of Korea (10 per cent each), India and the Philippines (7 per cent each).

Brazil produces a limited range of medical and scientific equipment as well as watches, clocks, cameras, binoculars and telescopes. Argentina and Mexico also have a broad-based industry. The Republic of Korea has developed export-oriented production of watches, cameras and optical goods, and Hong Kong is a large export manufacturer of watches and cameras. India is a large producer of watches, and Singapore has plants manufacturing cameras and some scientific and professional equipment.

The value of developing countries' exports of watches and clocks increased from \$1.58 billion in 1979 to \$1.83 billion in 1983, with Hong Kong exporting more watches and clocks than any other country. In 1984 Hong Kong exported 300 million watches, five times as many as Japan and Switzerland, but its export earnings of \$750 million were less than those of Japan or Switzerland. Hong Kong exported 48 million clocks worth \$110 million in 1984, almost three times as many as Japan and the Federal Republic of Germany, the next two leading suppliers of world markets.

The value of developing countries' imports of professional and scientific equipment increased from \$6.8 billion in 1979 to \$9.5 billion in 1983 (see table 2.8). Imports of measuring and control equipment for industrial plants doubled in this period.

Table 2.8. Professional and scientific equipment imported by developing countries, 1979, 1980 and 1983
(Billions of dollars at current prices)

Equipment	1979	1980	1983
Instruments for measurement and control			
Meters and counters	0.20	0.20	0.18
Measuring instruments	2.68	3.09	5.22
Medical instruments	0.53	0.60	0.97
Photographic and optical goods			
Photo apparatus	0.94	0.70	0.78
Optical instruments	0.16	0.19	0.26
Watches and clocks	2.26	2.57	2.09
Total	6.77	7.35	9.50

Source: UNIDO data base.

(c) Long-term prospects

The manufacture of professional and scientific equipment is a high-technology sector, in which a few developing countries have recognized the importance of developing their capabilities. The main thrust of technological innovation is from producers in devel-

oped countries. The South is therefore likely to remain a large net importer of advanced products.

However, developing countries have developed production of watches and clocks, optical instruments, photo apparatus, meters and counters. They also produce all but the most complex types of medical equipment. Demand for these products will grow steadily and a wider range of developing countries will join the existing producers.

28. Other manufacturing industries (ISIC 390)

Jewellery, toys, sporting goods, musical instruments etc.

(a) Short-term outlook

The output of other manufactured goods in developing countries is expected to increase by 4.4 per cent in 1986 and 3.9 per cent in 1987, which is a major improvement over the 3.7 per cent decline in 1985.

The largest producing regions are Latin America (45 per cent of the output of the South), the Indian Subcontinent (24 per cent) and South-East Asia (20 per cent). Output is expected to grow very rapidly in South-East Asia (7.8 per cent in 1986 and 6.6 per cent in 1987), representing a sharp increase over the decline in 1985. The recovery from 1985 is also strong in Latin America, but growth rates are only moderate (3.7 per cent and 3.4 per cent). The Indian Subcontinent is expected to have difficulties in this industry, achieving only a small increase in output. North Africa and West Asia and Tropical Africa have very little output in this branch, but the outlook is for modest growth in both regions.

The output of the industry in the North is expected to increase by around 4.7 per cent in 1986 and 1987. This follows an estimated increase of 4.5 per cent in 1985 and confirms the recovery from the 1982 recession.

(b) Present situation

This is a small industrial branch contributing 2.6 per cent of total manufacturing output in developing countries and 1.7 per cent in developed countries.

Five developing economies account for 79 per cent of the South's output: namely Argentina, Brazil, India, Mexico, and Taiwan Province of China. The output of the industry is so varied that statistics on the volume of production of individual products have little significance. Most of these five economies produce jewellery, toys and sporting goods, musical instruments and other items such as pens and pencils.

A few developing economies are already major exporters of toys and sporting goods. For example, Hong Kong (\$1.2 billion) and Taiwan Province of China (\$1 billion) exported more toys than Japan and the Federal Republic of Germany in 1984. Imports of developing countries in this industrial branch have

ISIC 390: Other manufacturing industries
(Value added in constant 1980 prices)

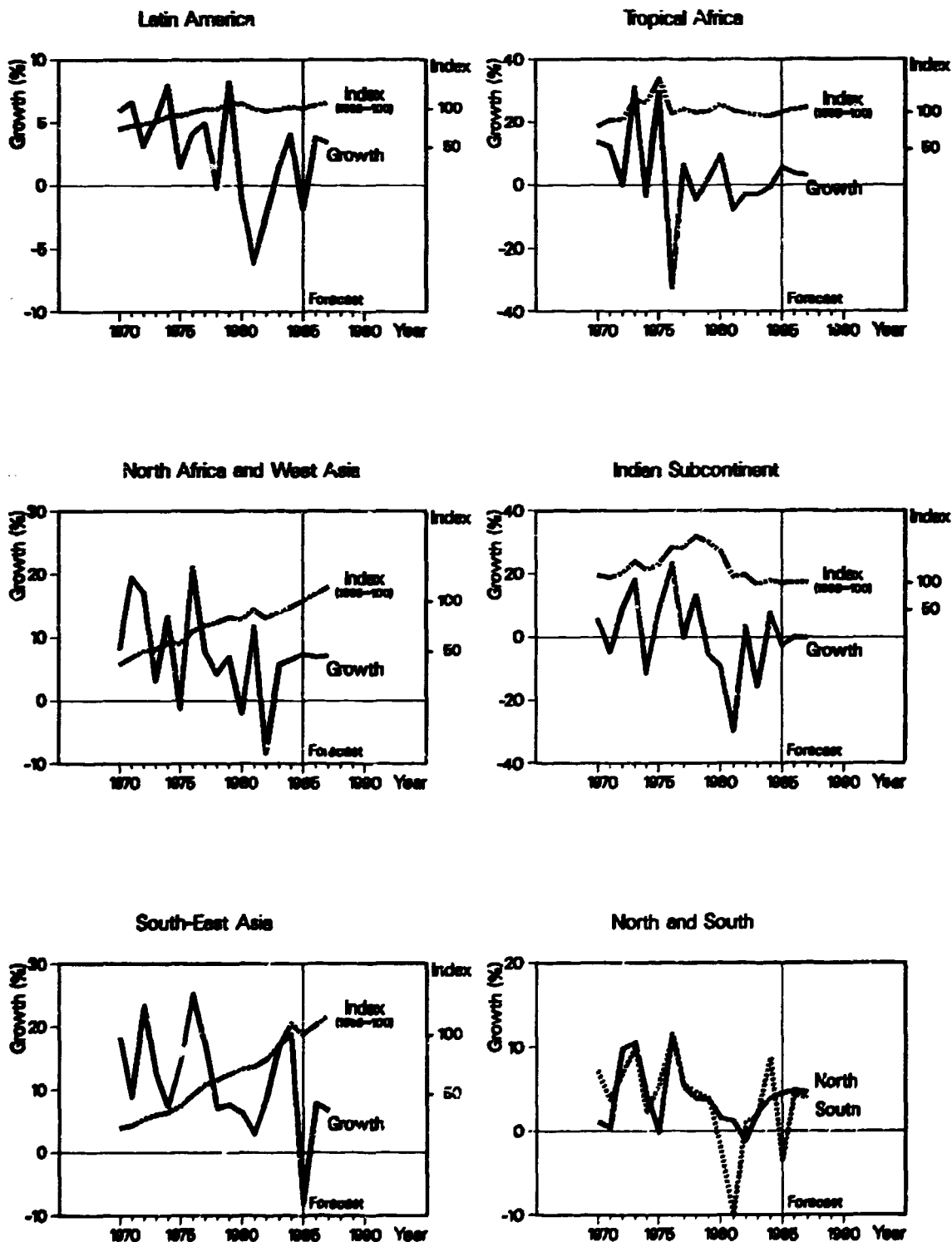


Fig. 4 United Nations Industrial Statistics, estimates and forecasts by UNIDO/IS/GLO.

grown from \$4.4 billion in 1979 to \$6.5 billion in 1980 (see table 2.9).

(c) *Long-term prospects*

The manufacture of toys, sporting goods, jewellery and some musical instruments are labour-intensive. Developing countries can expect to increase their exports and at the same time supply rapidly growing domestic demand. This industrial branch should therefore continue to be one of the faster growing manufacturing industries in the long term.

Table 2.9. Other manufactured goods imported by developing countries, 1979, 1980 and 1983

(Billions of dollars at current prices)

Product	1979	1980	1983
Jewellery	0.84	0.73	0.91
Musical instruments	0.58	0.24	0.54
Toys and sporting goods	0.95	1.83	3.23
Other manufactured goods	2.03	1.22	1.79
Total	4.40	4.08	6.47

Source: UNIDO data base.

Appendix

LIST OF 82 COUNTRIES OR AREAS SAMPLED FOR MANUFACTURING VALUE ADDED AND EMPLOYMENT STATISTICS

North America:	Canada, United States
Western Europe:	Austria, Belgium, Denmark, Finland, France, Germany, Federal Republic of, Greece, Ireland, Israel, Italy, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, Yugoslavia
Eastern Europe:	Bulgaria, Czechoslovakia, German Democratic Republic, Hungary, Poland, Union of Soviet Socialist Republics
Japan:	Japan
Other developed:	Australia, New Zealand, South Africa
Latin America:	Argentina, Bolivia, Brazil, Chile, Colombia, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Panama, Peru, Uruguay, Venezuela
Tropical Africa:	Cameroon, Central African Republic, Ethiopia, Ghana, Kenya, Madagascar, Mozambique, Nigeria, Senegal, United Republic of Tanzania, Zaire, Zambia, Zimbabwe
North Africa and West Asia:	Algeria, Cyprus, Egypt, Iran (Islamic Republic of), Iraq, Morocco, Syrian Arab Republic, Tunisia, Turkey
Indian Subcontinent:	Bangladesh, India, Pakistan, Sri Lanka
South-East Asia:	China (Taiwan Province), Hong Kong, Indonesia, Malaysia, Philippines, Republic of Korea, Singapore, Thailand

The following countries or areas are excluded from the sample of employment data: Central African Republic, China (Taiwan Province), Honduras, Mozambique, Peru and Zaire.

III. Does trade with the South cause job losses in the North?

In the developed market economies much concern has recently been expressed concerning their "deindustrialization", even though it is generally recognized that, as growth takes place, agriculture will cede its leading place to industry, which will in turn cede its place to services. The concept of deindustrialization draws our attention to the precipitate shrinkage in the size of the manufacturing sector, as measured by the number of people it employs. The sudden loss of industrial employment is sometimes said to be due to imports of cheap manufactured products from the South, facilitated by the low wages prevalent there. If this were true, then trade, for so long an engine of growth, would now seem to have negative consequences for developed economies.

It is necessary to examine the facts underlying this issue dispassionately and empirically. To begin with, we need to know the extent of deindustrialization and, if possible, to break down the change in employment into its components so as to identify the proximate causes. In section A the comparative data on deindustrialization are examined for six leading developed market economies. Section B is then devoted to the detailed study of the anatomy of these employment changes at the individual country level. The evidence here is overwhelming in its suggestion that it is the level of domestic effective demand and the pace of technical change which account for the bulk of the employment loss, and not imports from the South. In net terms, trade with the South has resulted in increased employment in the North.

Dynamic performance in manufactured exports was one of the main factors which contributed to the aggregate growth record of developing countries in the late 1960s and the 1970s. During this period an increasing number of developing countries shifted their orientation from the traditional import-substitution-based industrialization to an outward-looking development strategy. Again, during this period, an increasing number of developing countries found that their manufactured products were not just accepted, but were eagerly demanded by consumers in developed countries. The manufactured exports of developing countries to the seven largest industrialized countries grew from \$49.5 billion in 1975 to \$93.7 billion in 1983 (in 1975 prices), an annual growth rate of 8.3 per cent. On the other hand, exports of manufactures from North to South also grew rapidly.

Have developing countries been depriving developed countries of industrial employment? There have, in the past, been numerous empirical studies conducted on the subject, invariably vindicating developing countries.

Following the pioneering work of ILO under its World Employment Programme, both the World Bank and UNIDO conducted a series of studies analysing the employment effects on major industrialized countries of trade in manufactured products. In addition, there is considerable literature by academic researchers on the subject. Nevertheless, the suspicion that cheap imports from developing countries are at least partly responsible for job losses still persists in the minds of many, including some legislators in developed countries. We will take up this question once again in section C of this chapter.

In popular debates, attention has been focused on the exports of the South to the North as a cause of job losses. But the jobs created by the exports from North to South are seldom put on the balance sheet. It is after all the net effects of total trade, exports as well as imports, that should be the concern of policy makers. In this study, we have selected six major developed market economy countries—France, Germany, Federal Republic of Italy, Japan, the United Kingdom and the United States—and traced the employment gains and losses due to imports and exports. The method applied is as follows: the amount of labour used directly and indirectly by a unit of exports is compared with the amount of labour replaced directly and indirectly by a unit of imports. By the logic of the exercise, a unit of imports, if made instead at home, will use domestic technology and reflect labour productivity at home. Hence it is the number of domestic jobs that would be created to replace these imports that has to be calculated.

This calculation is done for each of the six developed market economies by using the latest input-output table available, which is generally that of 1980 (1978 for Italy, 1979 for the United Kingdom). This enables us to determine the direct and indirect domestic labour content of exports and imports for each country. The net gain and loss in terms of man-years of labour can then be computed for each country. To obtain precise details, this is done for trade with the whole South, as well as for trade with nine selected developing economies.* Given the industrial focus of the *Global Report*, the gains and losses in manufacturing trade are calculated separately from those for total trade (in the appendix, the impact of agricultural trade is also shown).

The speed with which changes have taken place in the industrial sector must be related to parallel

*These are Argentina, Brazil, Hong Kong, Malaysia, Mexico, the Philippines, the Republic of Korea, Singapore and Thailand.

changes in the direction and composition of trade. Thus, it has been suggested that the increasing speed of import penetration by the South, rather than the level of imports, could be the culprit. To account for this, the analysis was carried out for 1975, 1980 and 1983. To keep the comparison as close as possible, the input-output table for 1980 has been used throughout. This helps to isolate the effects of trade, while those of changing technology and productivity will be looked at separately in section B, along with the general employment trends since 1975 in the countries concerned. Our calculation of job loss, however, overstates the case, since many of the South's exports in agricultural and raw material categories are treated as producible within the developed market economies, when this is patently not the case.

In the individual country analyses, it is clear that, except for the United States, which is well endowed in agriculture and raw materials, the majority of imports of developed market economies from the South consists of such commodities. The case of Japan is particularly striking, since by importing coal, crude petroleum and metal ores, Japan cannot be suffering job losses, as the calculations seem to show, but is generating jobs in the economy. Most manufactured products imported by developed market economies from the South are also agro-based and at the low end of the commodity spectrum, requiring simple technology. The developed market economies have long been withdrawing from such production, since it is too labour-intensive to be cost-effective at the prevailing level of wages.

Despite these qualifications, it can be seen from the following tables and figures that no country has consistently lost employment during the periods covered by the analysis. With regard to manufacturing trade, although both France and the United Kingdom steadily lost jobs to their partners in the North, they managed to offset their losses partly or completely through trade with the South. Indeed, all six countries registered substantial job gains through manufacturing trade with the South. This being a particularly difficult time for the whole world economy, had it not been for trade with the South, the six developed countries considered here would have suffered even higher unemployment and deeper recession.

This conclusion changes somewhat when we single out the nine developing economies which have shown an ability, not only to manufacture, but also to market their products in developed countries. In 1975, all six developed countries gained jobs in trade dealings with the group of nine export-oriented developing economies. More recently, however, with the exception of Japan, all countries have begun, on balance, to lose jobs through trade with this group of selected developing economies. This, then, helps to explain the concern of developed countries caused by import penetration from selected developing countries with a high share in manufacturing.

This concern, however, should not be overstated. The largest number of jobs lost occurred in the United Kingdom, but these losses were offset by other developing countries, which enabled the United Kingdom to gain extra jobs. Moreover, the figures here do not take into account gains from trade in services. Although a lack of statistics on bilateral

trade in services prevents any possibility of quantification, one would imagine that the net balance in trade in services (for instance, financial services, shipping, insurance, royalties, computer software etc.) between the North and South provides large net employment gains in the North.

If a country is engaged in international trade on a multilateral basis, one can not expect trade to be balanced bilaterally with each and every trade partner at all times. Multilateralism is, however, one of the traditional virtues of international trade which is becoming increasingly subject to criticism. And the concern over selected developing countries with a high share in manufacturing is primarily a bilateral one. This bilateralism, however, goes even further than just individual countries in the North *vis-à-vis* certain selected developing countries in the South. Within the North, there are bilateral battles being fought, for example, between Japan, the United States and EEC. Not only is this disconcerting in itself, but it has actually retarded the growth of industrial employment everywhere during the last ten years.

Indeed, our analysis (in section B) of employment trends in the late 1970s shows that much of the growth in employment in the six economies of the North can be attributed mostly to domestic rather than external demand. Whatever growth took place, however, was completely offset by productivity growth (except in the United States), and, as a result, employment fell. The fact that productivity growth during this period was not particularly strong reflects the stagflationary state of the world economy in general.

The current debate in developed countries is therefore of a fundamental nature, relating to whether the problem caused by trade is a "structural" or merely a "cyclical" one. In the case of the former, the fear is that an expansion of imports from the South extinguishes job and profit opportunities in older industries, and at the same time makes it difficult to create sufficient new employment and profit opportunities. In other words, it is claimed that comparative advantage in the manufacturing sector as a whole is shifting or has already shifted in favour of developing countries. In order to analyse this claim, the case of the Republic of Korea was singled out for scrutiny in section D. This exercise should counter some of the concern about the South causing the deindustrialization of the North.

Nevertheless, the fact that trade, under certain conditions, generates a net gain in income as well as in employment does not prevent workers and managers in some industries from becoming afraid of losing their jobs. For workers in developed countries (largely in the textiles, clothing, leather and footwear industries), the nature of the problem is more personal and immediate. This forces policy makers to re-examine once again their traditional stance on the liberalization of trade. In the immediate future, it is possible that world trade will keep shrinking because of political concern over the so-called sensitive domestic industries. We have identified the list of sensitive industries and the probable target countries that might be singled out for trade restrictions (see appendix).

If the major actors of the North retreat from trade, what are the prospects for the South? Countries which have been persuaded that trade and an open-economy

orientation provide dynamic channels for economic growth and rapid industrialization—a lesson preached to them by the developed market economies in the 1960s and 1970s—will find themselves in a quandary. Should they continue as before and risk protectionist retaliation and stagnation in their newly won markets in developed countries, with a consequent slow-down in growth and rising unemployment at home? Or should they attempt to retreat inwards in parallel with the economies of the North? Is there a way out for them in developing mutual South-South trade? We address these problems in section E.

Whatever the scope for South-South trade, it was pointed out in *Global Report 1985* that the South still remains largely dependent on the North. This dependence dictates certain unpleasant choices for the South. Thus, it has been suggested that, inasmuch as political rather than economic logic dominates decision-making on protectionism in developed market economies, developing countries should deny themselves the option of an even more vigorous pursuit of export growth. Is there, however, any guarantee that in return for such an act of self-denial by the South, the North will follow expansionary policies, keep interest rates low, pursue sensible policies to ease exchange rate volatility, guarantee reasonably free access to markets and reverse the capital flow back to the South? It is easy enough to demonstrate that such reciprocity is in the mutual interest of both North and South. *Global Report 1985* demonstrated precisely this with copious quantitative evidence. *Global Report 1986* has now sought to allay the fears of the North regarding the impact of the South on its industries. We only hope that long-term mutual benefits rather than short-term power considerations may yet form the basis of global economic policy.

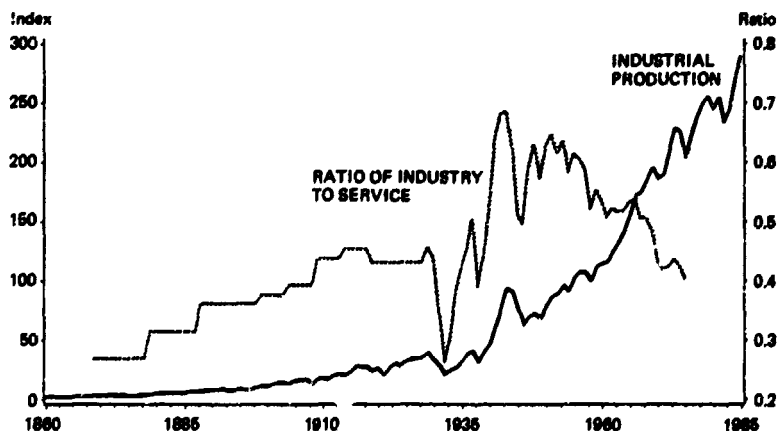
A. Is there deindustrialization in the North?

Long before developing countries started exporting manufactured products, many economists—Colin Clarke, Ragnar Nurkse and others—speculated that

the manufacturing sectors in developed countries would lose their employment share to the service sectors. This prediction was based on an analysis of the long-term effects of demand and supply shifts as steady growth occurred in developed countries. On the demand side, consumer spending for services was expected to rise faster than that for manufactured products. This was a consequence of the well-established empirical findings that the income elasticity of consumption of services was higher than that for goods. On the supply side, the manufacturing sector would experience a faster growth of labour productivity than services. This would cause the price of services relative to the price of manufactures—the terms of trade—to rise. The consequence is that both value-added and employment in services would show a secular increase relative to manufacturing.

This secular relationship between industry and services is traced for the United States and Japan over a period of more than one hundred years in figures 3.1 and 3.2. These show that even as the index of industrial production has been going up, the long-term picture of the ratio of output of industry to services is not as clearly in the downward direction as one would expect. It is possible to discern, however, more short-term movements, cycles of 10 or 20 years. To obtain a better picture, data for 1960-1982 are given in figures 3.3-3.8 for the six developed market economies. These give the ratio of the output of manufacturing to services in current as well as constant prices, together with the share of employment in the two sectors. This set of figures provides some evidence of a decline in the share of manufacturing compared with that of services since 1973. Note, however, that the trend is much less marked in the constant price series than in the current series. One could even argue, given the highly sensitive nature of manufacturing employment to the overall growth rate of the economy, that the recent sluggish pace of economic growth might have something to do with the shrinking share of employment in manufacturing in developed countries. The underlying mechanism is

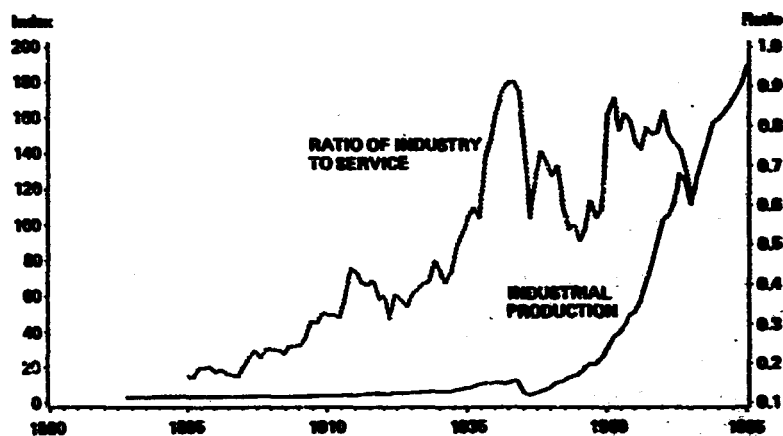
Figure 3.1. Index of industrial production in the United States, 1860-1985
(1958 = 100)



Source: B. R. Mitchell, *International Historical Statistics, the Americas and Australia* (London, Macmillan Reference Books, 1983).

Figure 3.2. Index of industrial production in Japan, 1874-1985

(1970 = 100)



Source: B. R. Mitchell, *International Historical Statistics, Africa and Asia* (London, Macmillan Reference Books, 1983).

surely a much more complex one of growth, productivity changes and relative price movements, and not a result of trade and competition with developing countries alone. Let us therefore examine the evidence further.

B. Anatomy of employment changes in six major developed market economies

Growth generates jobs, while improved labour productivity destroys them, at least in the short term. Imports often displace domestic workers, while exports, on the other hand, always expand employment opportunities. Employment in different economic sectors therefore grows at different rates depending on the

interplay between these diverse factors. Since trade has often been blamed for their industrial woes, we will examine changes in employment structures in six developed market economies and attempt to shed light on the forces that determined the generation of new employment in the last decade. The time-frame chosen for this exercise (approximately 1975-1980) is partly dictated by the availability of national input-output tables.*

In table 3.1, a comparative summary is provided of the results of an input-output exercise. Here we have

*For five of the six countries we have a table for 1975, that for the United States being for 1973. For four of the six we have comparable tables for 1980, the information for Italy being from 1978, and for the United Kingdom from 1979.

Table 3.1. Anatomy of employment change in six major industrialized countries, selected periods

(Thousands of persons)

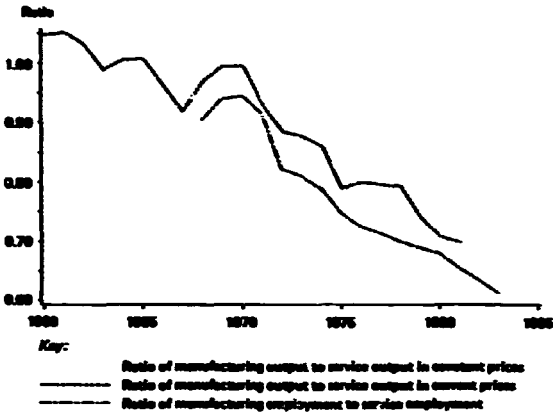
Item	Federal Republic of Germany 1975-1980	France 1975-1980	Italy 1975-1978	Japan 1975-1980	United Kingdom 1975-1979	United States 1973-1980
Change in economically active population	505	386	423	2 656	85	13 635
Including:						
Agriculture	-337	-259	-128	-981	-15	-43
Construction	118	-75	-25	733	-7	249
Services	1 011	1 079	590	3 192	432	12 752
Industry ^a	-287	-583	-14	-288	-325	677
Change in employment in industry due to changes in:						
Level of demand:						
Domestic	932	817	202	3 812	142	3 593
External	968	1 051	-216	3 330	880	3 821
North	-56	-234	418	482	-738	-28
South	-23	-305	297	256	-655	-73
9 selected developing economies	-47	59	112	251	-97	-107
Technology	-43	-31	-15	116	-84	-149
Productivity	-659	30	206	240	251	97
Productivity	-560	-1 206	-422	-4 340	-718	-3 013

Source: UNIDO input-output data bank.

Notes: A minus sign before a figure indicates a loss, all other figures represent gains. The discrepancy between the sum of North and South and the total external effect is due to service trade.

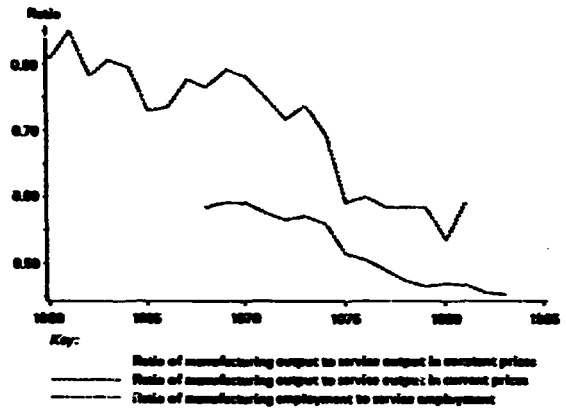
^aIndustry consists of manufacturing, mining and utilities.

Figure 3.3. Ratio of manufacturing to services: Federal Republic of Germany, 1960-1983



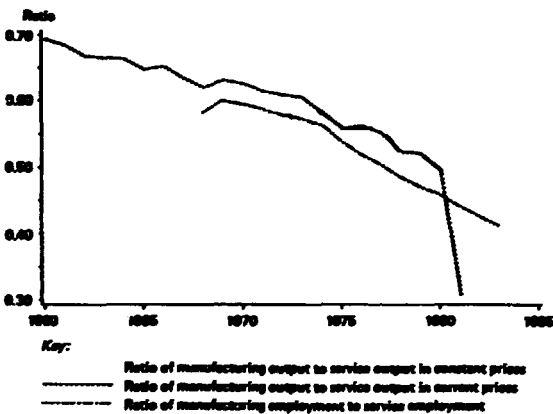
Sources: United Nations National Accounts Statistics; International Labour Office, *Yearbook of Labour Statistics* (Geneva 1983).

Figure 3.6. Ratio of manufacturing to services: Japan, 1960-1983



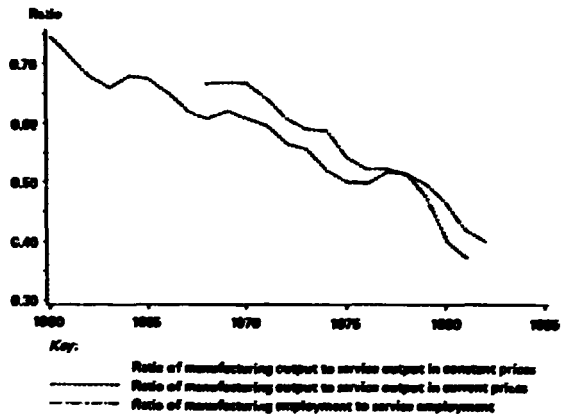
Sources: United Nations National Accounts Statistics; International Labour Office, *Yearbook of Labour Statistics* (Geneva 1983).

Figure 3.4. Ratio of manufacturing to services: France, 1960-1983



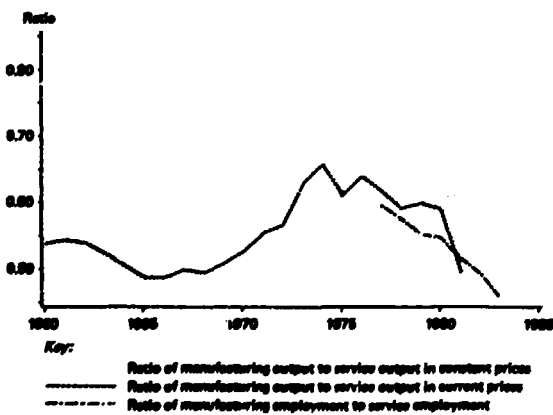
Sources: United Nations National Accounts Statistics; International Labour Office, *Yearbook of Labour Statistics* (Geneva 1983).

Figure 3.7. Ratio of manufacturing to services: United Kingdom, 1960-1983



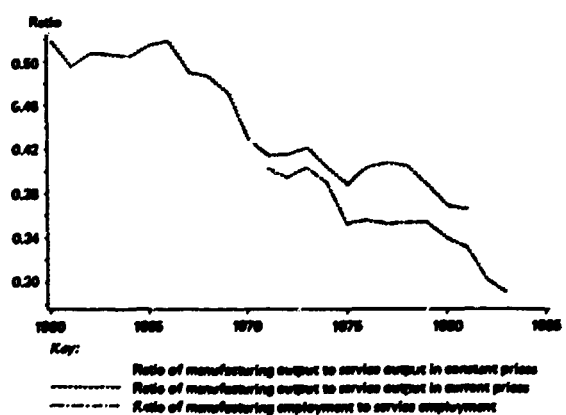
Sources: United Nations National Accounts Statistics; International Labour Office, *Yearbook of Labour Statistics* (Geneva 1983).

Figure 3.5. Ratio of manufacturing to services: Italy, 1960-1983



Sources: United Nations National Accounts Statistics; International Labour Office, *Yearbook of Labour Statistics* (Geneva 1983).

Figure 3.8. Ratio of manufacturing to services: United States, 1960-1983



Sources: United Nations National Accounts Statistics; International Labour Office, *Yearbook of Labour Statistics* (Geneva 1983).

traced for each of the six economies the influence of changes in the following: the level of demand, domestic and external; technology, that is, changing material input coefficients; and labour productivity, that is, changing labour coefficients. The addition to the "economically active population" in the 1970s, a measure of the number of new jobs created, is given. In relation to the economically active population in the initial year, the United States economy generated 17 per cent more jobs and Japan, 4.7 per cent. In the Western European economies, growth was around 2 per cent each for France, Germany, Federal Republic of, and Italy, and only 0.3 per cent for the United Kingdom.

The new jobs represent the net addition to the base year figure. We see in table 3.1 the sectoral breakdown of these jobs. Thus, the agricultural sector had job losses in all six economies. These were relatively significant in France, Germany, Federal Republic of, Italy and Japan, but only marginal in the United Kingdom and the United States. In all six economies, the service sector had big job gains; in all cases except the United States, the gain in service jobs exceeded the net addition to total employment. The ratio of jobs created in services to the net addition to the economically active population was highest—more than five to one—in the United Kingdom, but as much as two to one in the Federal Republic of Germany and France.

It is in the industrial sector that the contrast between the United States and Western Europe is the sharpest. While the United States had new jobs generated in the industrial sector, albeit in a small proportion to the total, in all the Western European economies considered there was a net loss of jobs. Again, this was most drastic in France and the United Kingdom, the slow-growing economies in the region, and proportionately least in Italy, a relatively faster-growing economy. Changes in industrial employment, however, not only occur in response to a myriad of economic forces, but often also in an unpredictable way.

Only in the Federal Republic of Germany has the effect of changes in technology been to reduce labour demand; in all other cases technology change has been labour-absorbing. This was most probably the result of high energy prices which made capital more costly to use relative to labour. Only in the Federal Republic of Germany and the United States did the growth in demand create more jobs than those which the growth of labour productivity destroyed. In all the other countries, improvements in labour productivity have drastically curtailed industrial employment.

The more interesting contrast here is between the influence of domestic and external demand. Surprisingly, Japan relied much more on domestic demand growth than external demand to create new jobs. Nevertheless, Japan benefited from external trade by gaining half a million new jobs in industry. The United States lost 28,000 industrial jobs because of the worsening trade balance. Within the Western European economies covered in our survey, the two slow-growth ones, France and the United Kingdom, together with the Federal Republic of Germany, lost jobs as a result of changes in external demand. Italy was the only one which substantially benefited from trade, with 418,000 extra jobs.

C. Employment gains and losses in manufacturing trade with the South

We have seen that, except for Italy and Japan, the contribution of external trade to the generation of new industrial employment in developed market economies has recently declined. This, however, does not necessarily mean that the employment impact of trade was negative at any specific time. We now, therefore, examine the gains and losses in employment associated with trade in each period of time. We shall concentrate our analysis mainly on the gains and losses related to trade with developing countries, with other details being presented in the discussions of individual countries in the appendix to this chapter.

As previously noted, various studies have shown that developed countries have benefited from trade with the South, not only in terms of real income, but also in industrial employment.

In 1979, Balassa [74], using a multiplier analysis that did not consider indirect employment effects, found a net gain in employment for developed countries from their manufacturing trade with developing countries. He estimated the gain to be 701,000 jobs in 1973, 1,439,000 in 1978 and 1,474,000 in 1981. In 1981, net employment gains were by far the largest in EEC (710,000), followed by Japan (523,000) and the United States (142,000). In the same year, losses in employment for developed countries were shown in only one commodity group, namely clothing.

Using Balassa's coefficients, Renshaw [75] examined the employment implications for the OECD countries of two scenarios over a ten-year period. One scenario, termed a "protectionist" scenario, gave a positive balance of 364,000 jobs because of manufacturing trade with developing countries. A second scenario, termed a "liberalization" scenario, gave a positive balance of 387,000 jobs.

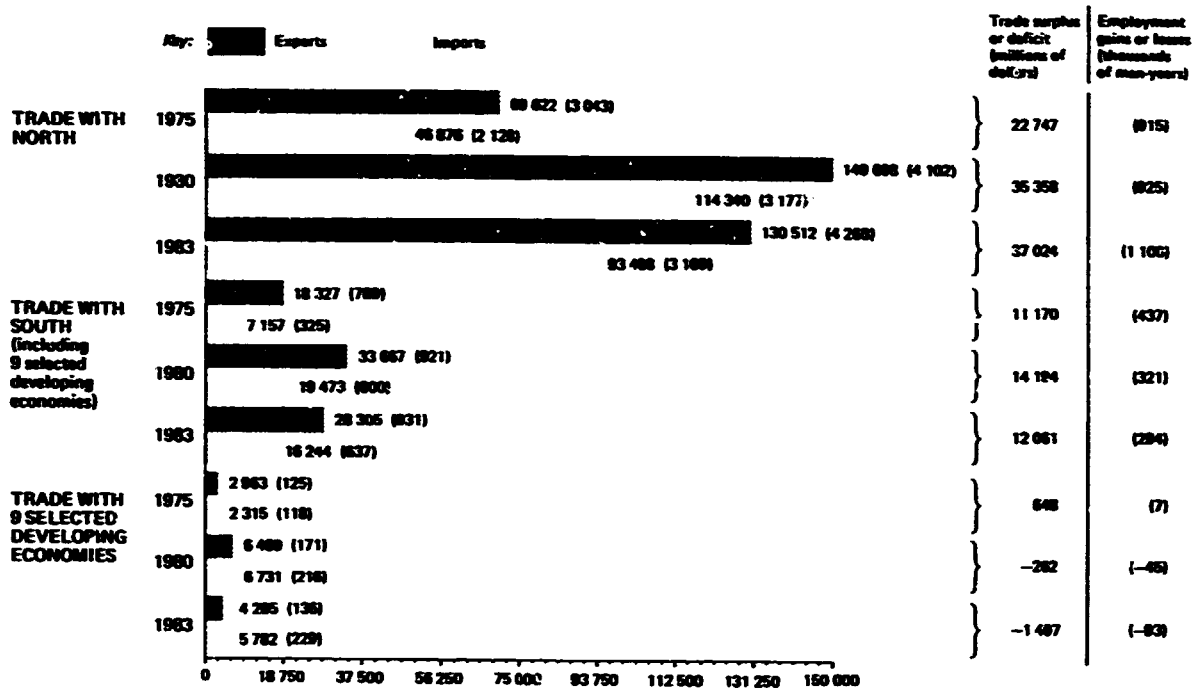
Subsequently, Driver and others [76] conducted an input-output study of the employment effects of trade expansion with selected developing countries with a high share in manufacturing and EEC. The principal conclusion of the study was that a balanced expansion of trade with both the selected developing countries and EEC resulted in small reductions in employment only in the United Kingdom. The employment loss was, however, narrowly concentrated, particularly in the textiles and clothing industries. These results are similar to the input-output studies performed by UNIDO.

Figures 3.9-3.14 show, for each of the six countries under study, the imports and exports of manufactured goods in 1975, 1980 and 1983. On the export side, the employment figures* show how many domestic jobs

*Employment data for the four European countries come from EUROSTAT and cover the working population. Employment data on Japan come from the 1980 Japanese input-output table and cover the number of employees, self-employed and unpaid family workers. United States data come from the United States Bureau of Labor Statistics and exclude proprietors, the self-employed, unpaid volunteer and family workers, and domestic staff. It should be noted that 1980 coefficients of employment are also used for 1975 and 1983.

Figure 3.9. Bilateral trade in manufactures and its employment implications: Federal Republic of Germany, 1975, 1980 and 1983

(Millions of current dollars; thousands of man-years^a)

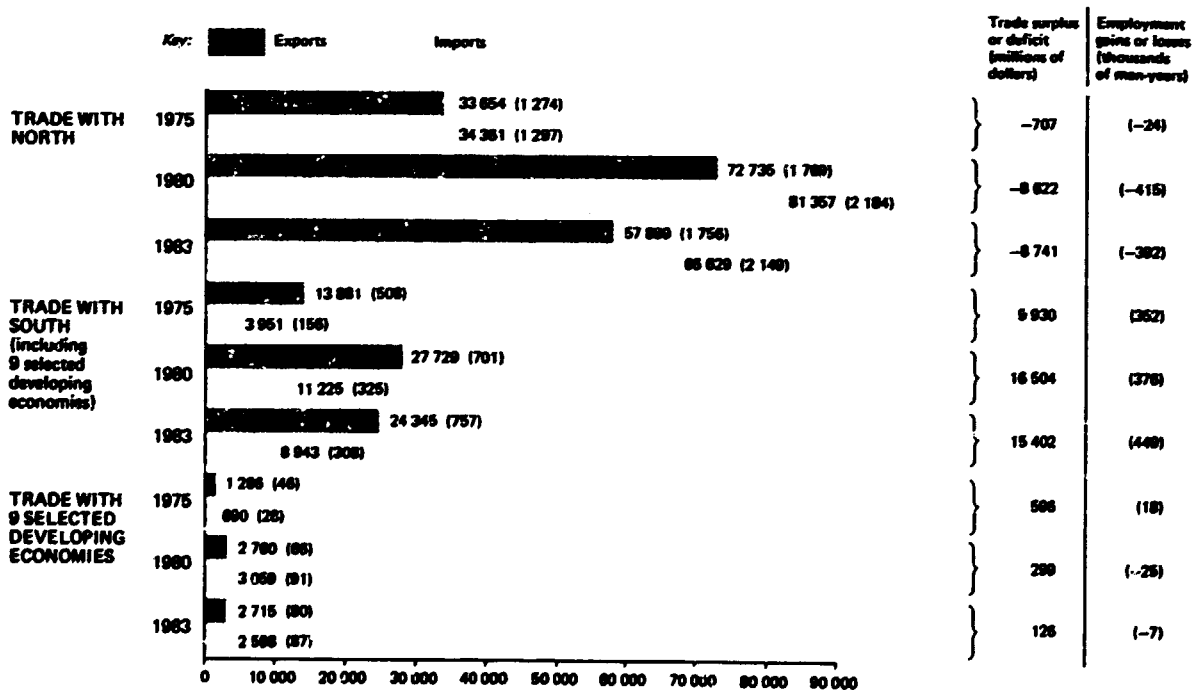


Sources: UNIDO input-output data bank; United Nations Trade Statistics.

^aIndicated in parentheses.

Figure 3.10. Bilateral trade in manufactures and its employment implications: France, 1975, 1980 and 1983

(Millions of current dollars; thousands of man-years^a)

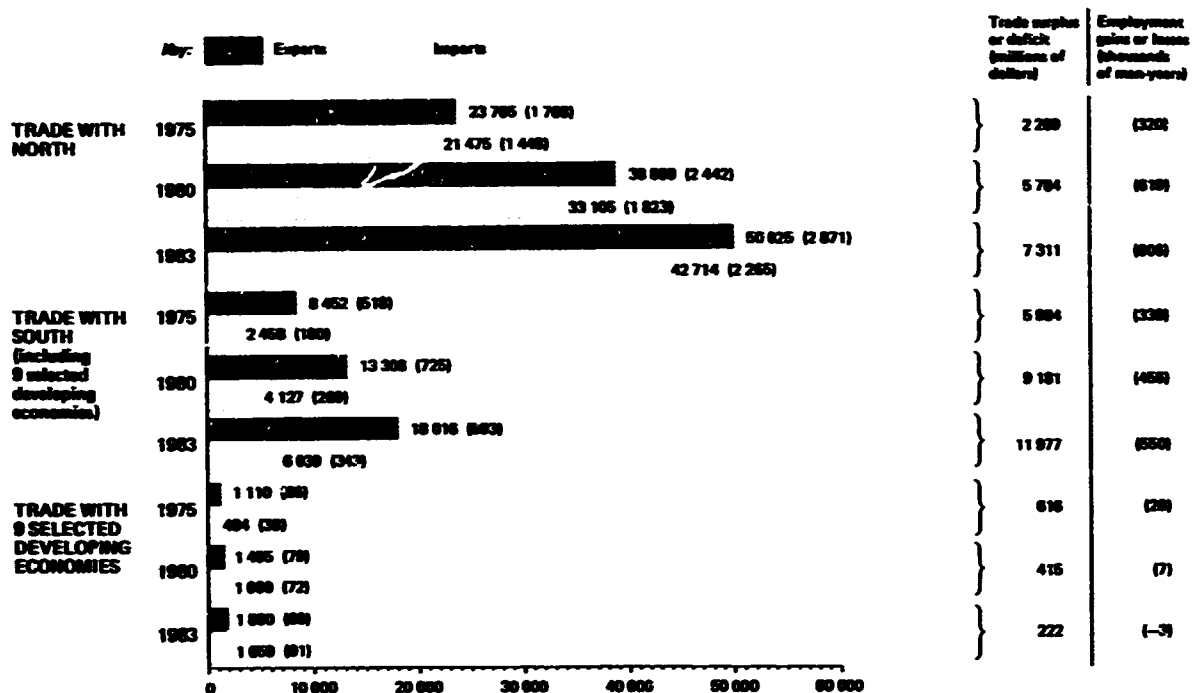


Sources: UNIDO input-output data bank; United Nations Trade Statistics.

^aIndicated in parentheses.

Figure 3.11. Bilateral trade in manufactures and its employment implications: Italy, 1975, 1980 and 1983

(Millions of current dollars; thousands of man-years^a)

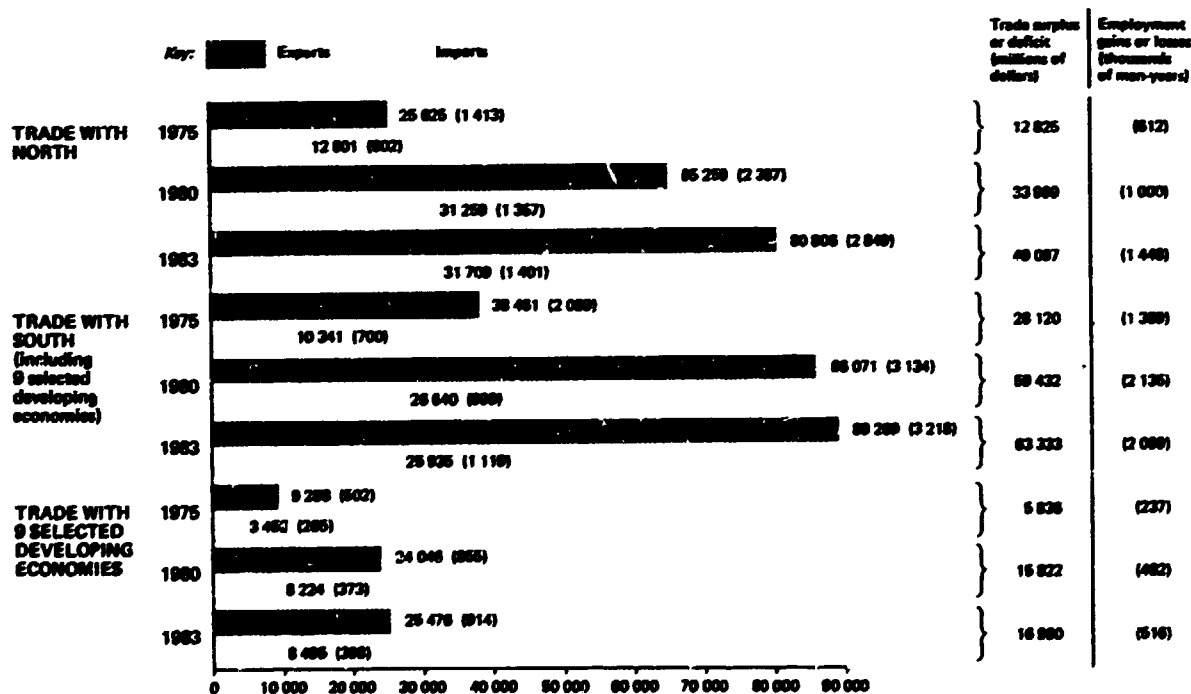


Sources: UNIDO input-output data bank; United Nations Trade Statistics.

^aIndicated in parentheses.

Figure 3.12. Bilateral trade in manufactures and its employment implications: Japan, 1975, 1980 and 1983

(Millions of current dollars; thousands of man-years^a;

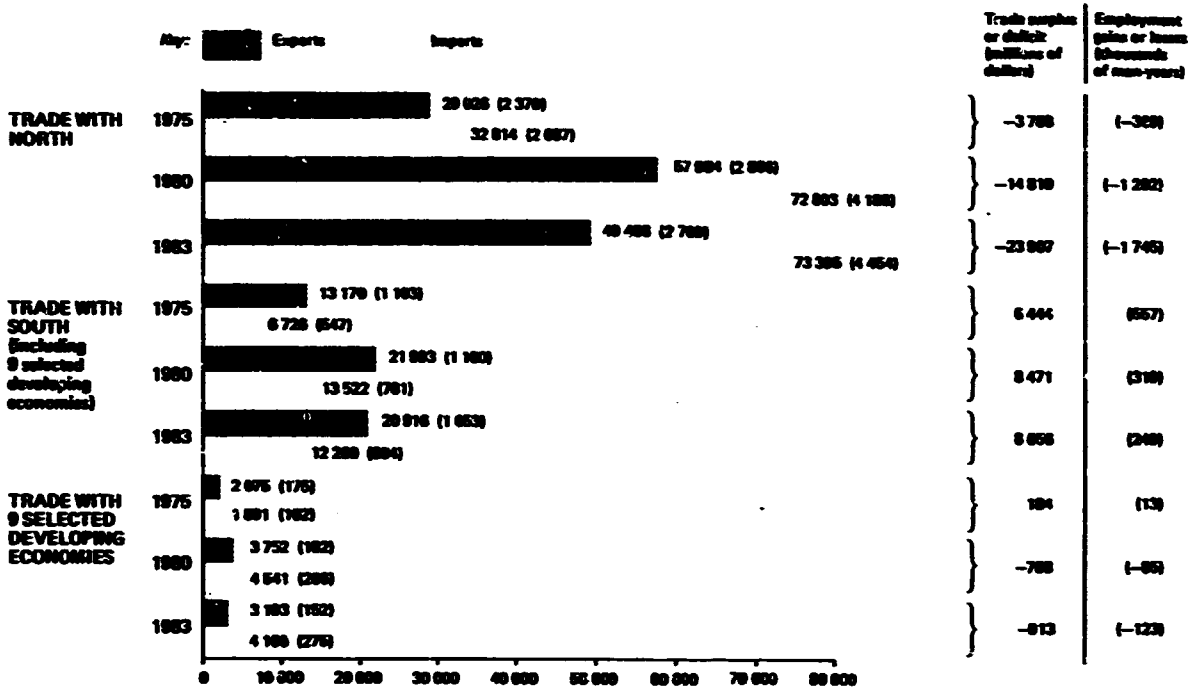


Sources: UNIDO input-output data bank; United Nations Trade Statistics.

^aIndicated in parentheses.

Figure 3.13. Bilateral trade in manufactures and its employment implications: United Kingdom, 1975, 1980 and 1983

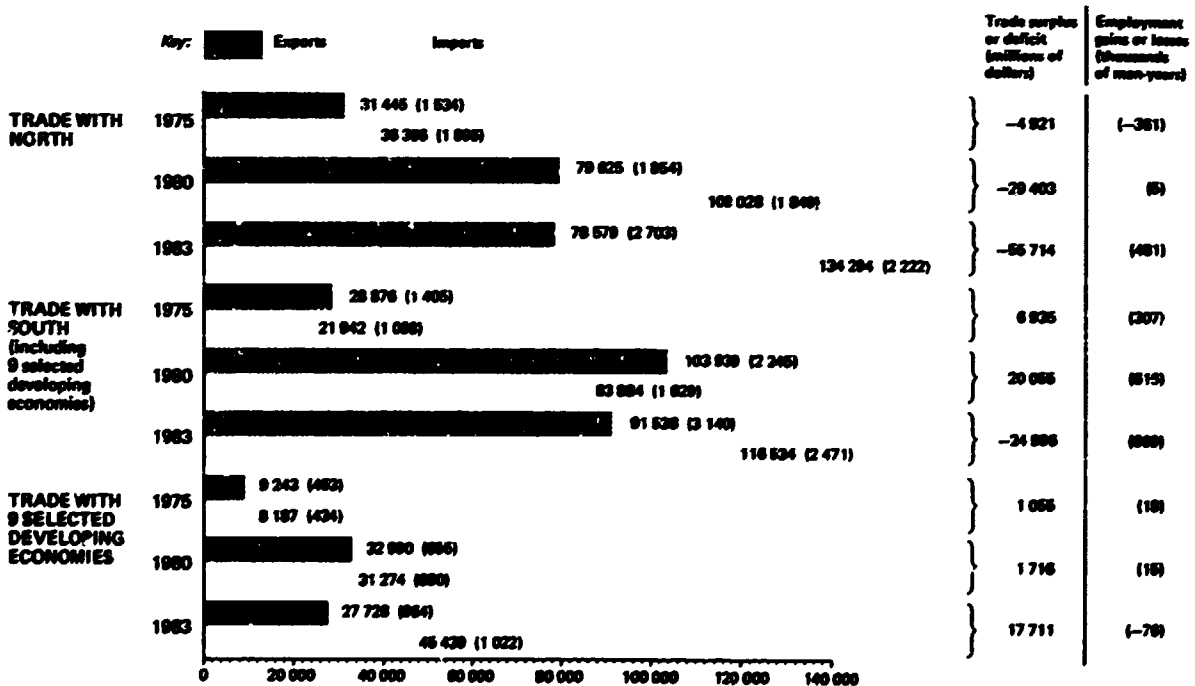
(Millions of current dollars; thousands of man-years^a)



Sources: UNIDO input-output data bank; United Nations Trade Statistics.
^aIndicated in parentheses.

Figure 3.14. Bilateral trade in manufactures and its employment implications: United States, 1975, 1980 and 1983

(Millions of current dollars; thousands of man-years^a)



Sources: UNIDO input-output data bank; United Nations Trade Statistics.
^aIndicated in parentheses.

were created by exports, directly and indirectly.* On the import side, the employment figures show how many domestic worker-years would have been required (directly and indirectly) to produce the goods imported, assuming that these goods could actually have been produced domestically.

The column on the right-hand side of the figures shows the (direct and indirect) employment gains and losses resulting from the trade of the six countries with each of the three regions considered (the North, the South and the group of selected developing economies within the South, which are themselves part of the figures given for the South as a whole).

Looking first at the impact of manufacturing trade with the selected developing economies, we see that the developed market economies, except Japan, experienced job losses in 1983. Considering the fact that the developed market economies had positive gains in employment as recently as 1975, this is a significant turn-around.

Among the six, the United Kingdom emerges with the highest loss, followed closely by the Federal Republic of Germany and the United States. Putting these figures into perspective, we see that their direct impact represented a 1.8 per cent reduction in manufacturing employment in the United Kingdom, 1.1 per cent in Germany, 0.4 per cent in the United States, 0.13 per cent in France and 0.05 per cent in Italy. The Japanese gain was 3.7 per cent.

This result is not surprising because the nine developing economies were selected mainly because of their recent successes in the exports of manufactures to the developed market economies. If we look at the impact of manufacturing trade with the South as a whole (including the nine), we see that all six developed market economies have had employment gains throughout. The result shows employment gains (both direct and indirect) for Japan which are equivalent to as much as 15 per cent of its total manufacturing employment in 1983, for Italy 10 per cent, for France 8.5 per cent, for the United Kingdom 3.7 per cent, for the Federal Republic of Germany 3.5 per cent, and for the United States 3.3 per cent. Not only were the gains uniformly positive, but the overwhelming impression is that they grew from 1975 to 1983 for all except the Federal Republic of Germany and the United Kingdom. Even in the United States, which has had a continuously deteriorating trade balance in manufactures with the South, the employment gains became much larger in 1983.**

Thus, even if we look at manufacturing trade only, it would be fair to conclude that the developed market economies gained in employment from trade with the

South as a whole. Since no country can have balanced trade with all countries all the time, singling out only those countries which have bilateral trade surpluses makes very little sense.

If balancing of trade with every trade partner makes a mockery of the multilateral trade system, balancing of trade over all the individual commodities traded defeats the purpose of international trade. The types of manufacturing jobs being lost or created through trade have, however, become a very emotive issue. Figures 3.15-3.20 show a disaggregated breakdown of gains and losses in direct and indirect employment by sector for manufacturing trade between the six developed countries and the South in 1983.

In general, the same pattern repeats itself for all six countries. The largest gains in employment through trade with the South are in machinery, electrical machinery, transport goods and chemicals, while the largest losses are in textiles and leather goods.

D. Are developing countries engaged in unfair competition? Comparison of unit costs of production

According to economic theory, trade can take place between two countries even when one country enjoys absolute cost advantage over the other in all tradeable commodities. This so-called "comparative advantage" theory of international trade rests on two basic common-sense propositions. The first one is that no country will send goods abroad unless it wants to receive an equivalent sum, or more, in goods and services from other countries. In other words, the gains from trade ultimately rest on receiving (importing). Since nobody receives without paying, the second proposition states that imports should be paid for with goods one can produce relatively cheaply.

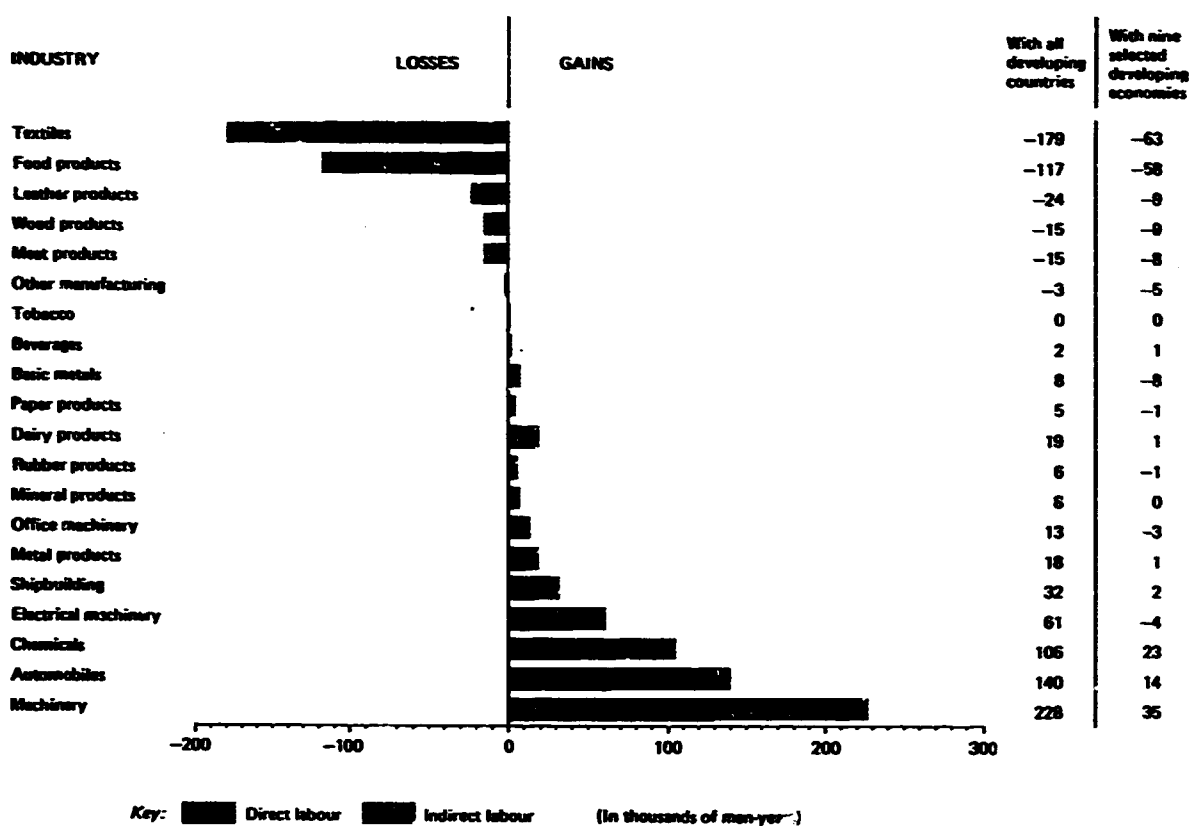
As we have seen, developing countries have, in general, been exporting textiles, leather goods and processed food products to developed countries in order to pay for their import requirements of machinery, transport goods and chemical products. It was only logical, therefore, that a certain developing country, upon being asked voluntarily to curtail its textile exports, might reply that it would have to reduce machinery imports. The pressures to curb manufactured imports from developing countries are unfortunately still mounting. And one of the means used to bring about such pressure in recent years has been to criticize a country for "dumping" its products in the domestic market.

Are some developing countries practicing unfair price competition? Before proceeding with the detailed analysis, an example of the employment-productivity-trade connection can be looked at to make the discussion concrete. We take a single developing economy, the Republic of Korea, and compare its labour-intensity in different industrial sectors with that of the developed market economies. The Republic of Korea is a suitable example for many reasons. It has been noted for its singular success in the growth of manufacturing exports and has attracted some hostile attention mingled with admiration. It also has a large and detailed input-output table from which data can

*When one industrial sector undergoes an expansion in output, it affects employment in other sectors of the economy through intricate supplier-clientele relationships involving raw materials and intermediate goods required by the originally expanding sector. Needless to say, the whole process repeats itself in the other direction when the original industry experiences a contraction. As will be shown later, our calculation discloses that this so-called "indirect" employment effect is roughly equal in magnitude to the "direct" employment effect in the Western European countries, while the indirect outweighs the direct effect by more than 50 per cent in Japan and the United States.

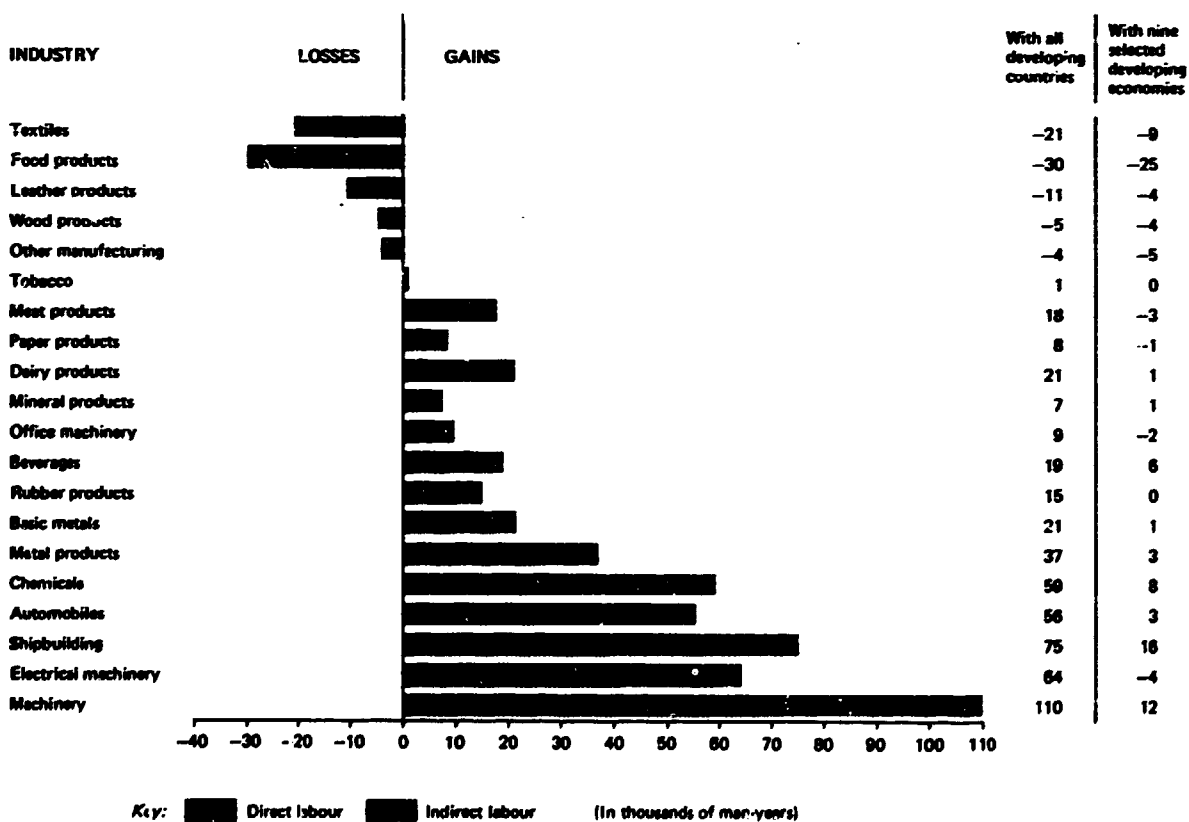
**This anomaly is due to the relative undervaluation of the dollar during this period. See detailed discussion in the appendix.

Figure 3.15. Net employment gains and losses in trade with the South: Federal Republic of Germany, 1983



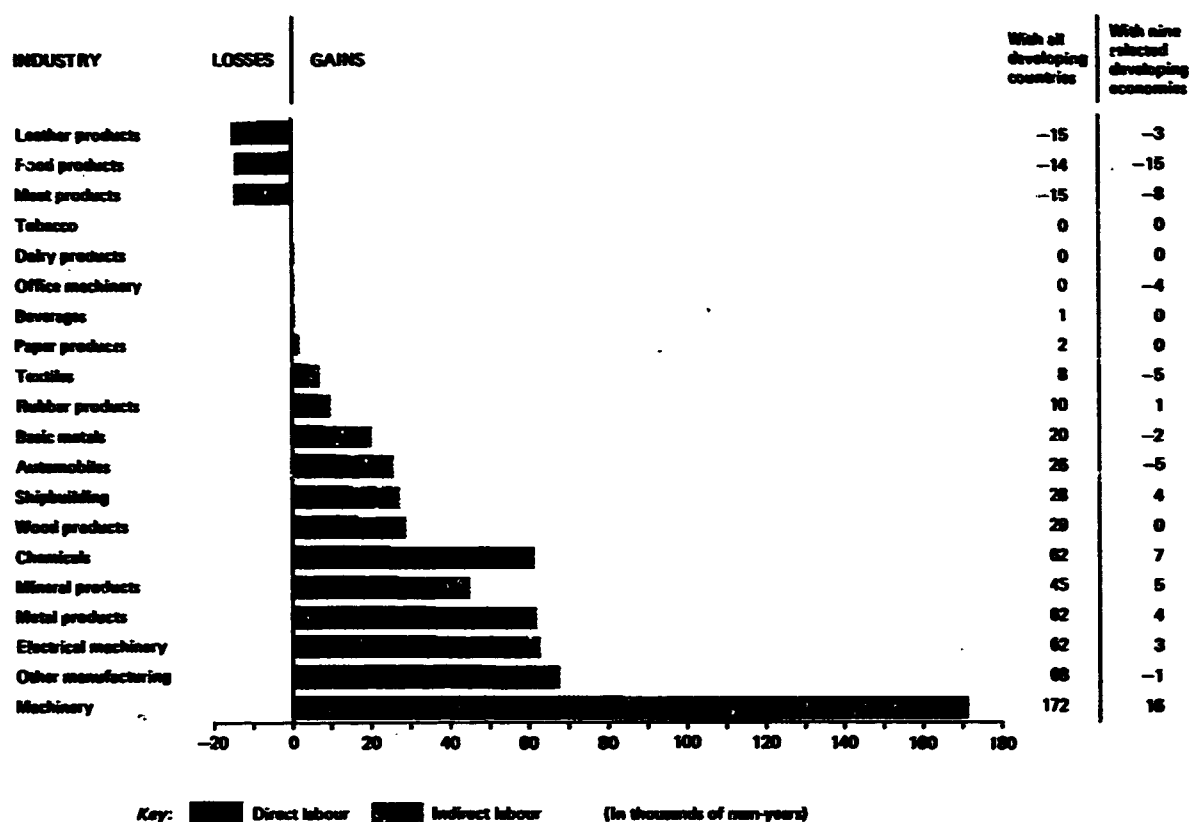
Source: UNIDO input-output data bank.

Figure 3.16. Net employment gains and losses in trade with the South: France, 1983



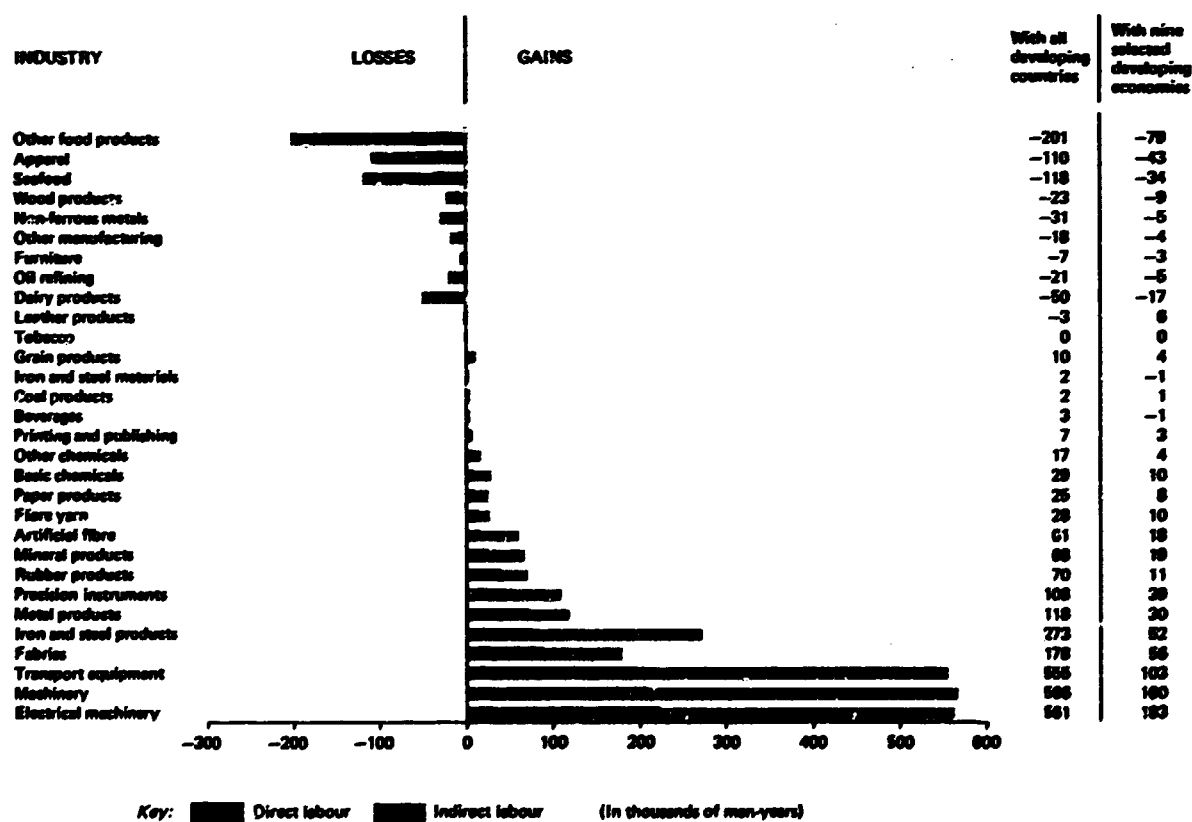
Source: UNIDO input-output data bank.

Figure 3.17. Net employment gains and losses in trade with the South: Italy, 1983



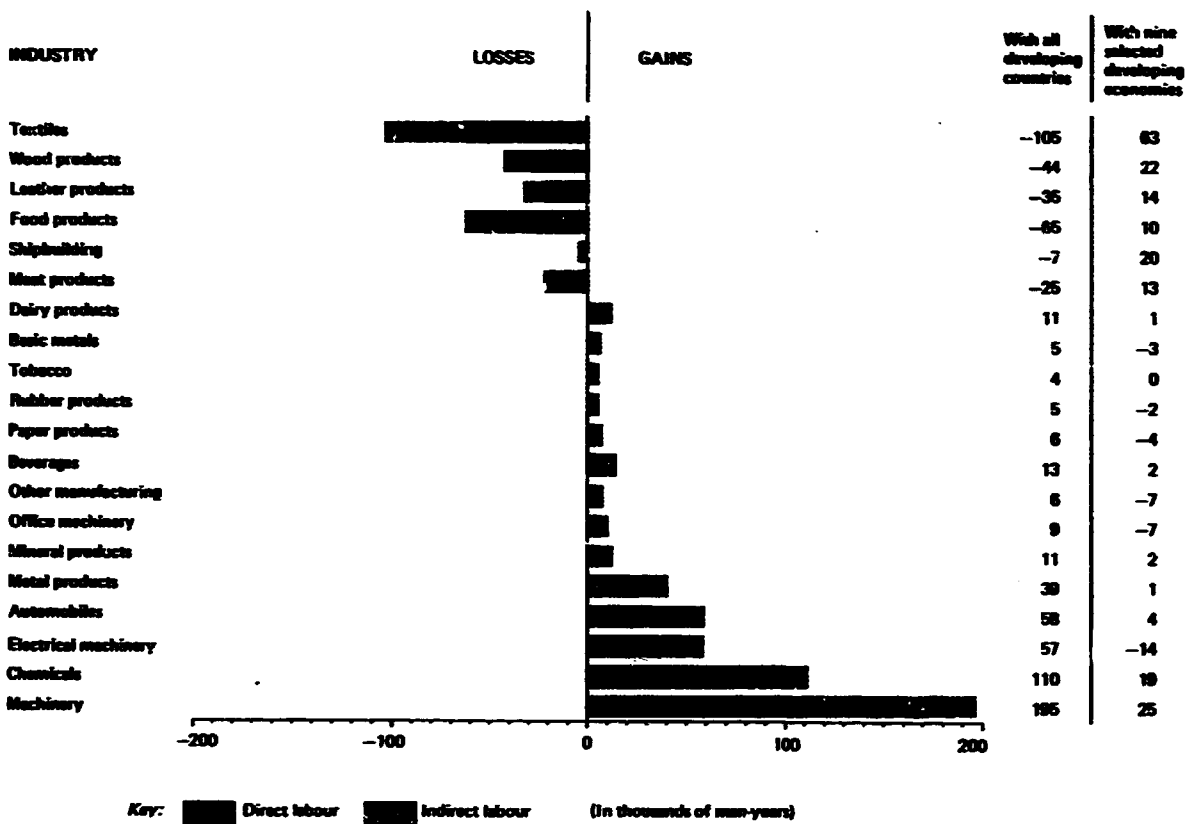
Source: UNIDO input-output data bank.

Figure 3.18. Net employment gains and losses in trade with the South: Japan, 1983



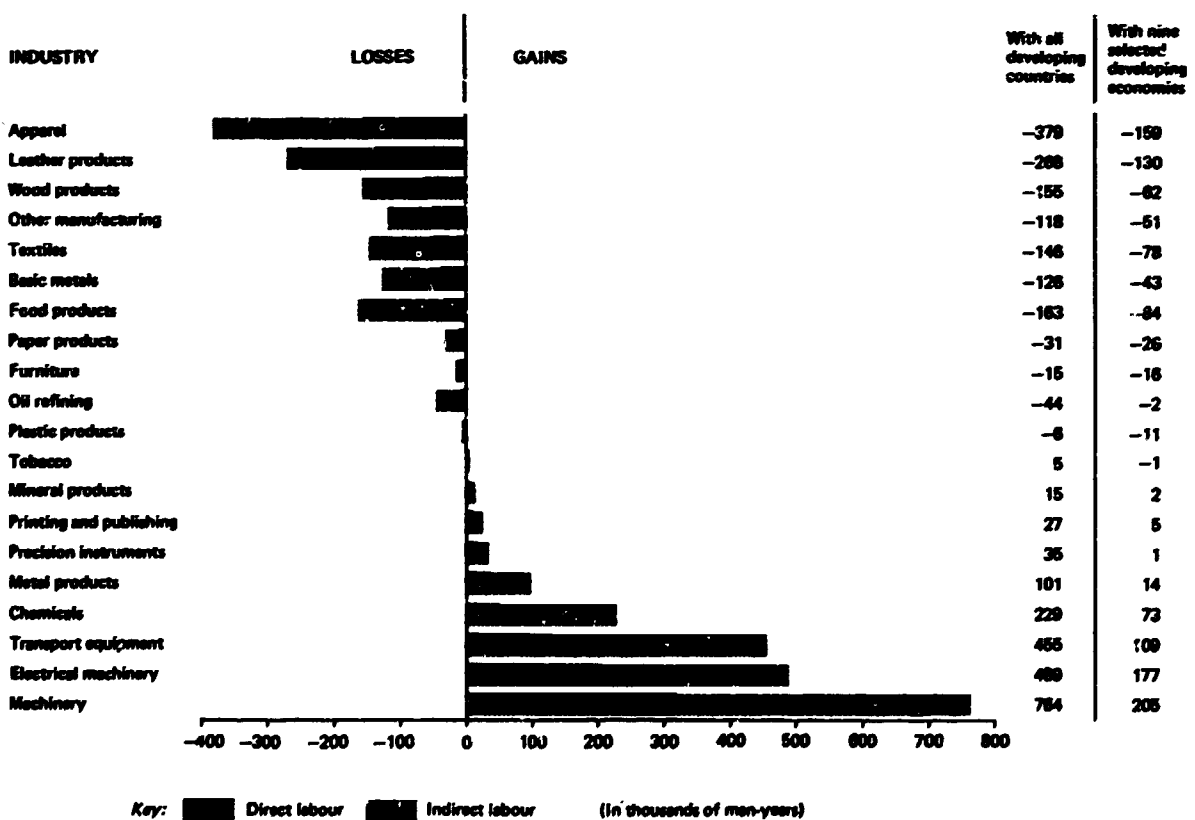
Source: UNIDO input-output data bank.

Figure 3.19. Net employment gains and losses in trade with the South: United Kingdom, 1983



Source: UNIDO input-output data bank.

Figure 3.20. Net employment gains and losses in trade with the South: United States, 1983



Source: UNIDO input-output data bank.

be produced to compare its experience with that of the European developed market economies, the United States and Japan.

The data on total (direct plus indirect plus imported) labour input for the Republic of Korea and the United States are given in figure 3.21. At first glance they show what is obvious, namely that the economy of the Republic of Korea requires more labour than the United States to produce the same output in every industrial sector. Take cotton textiles as a particular case where the Republic of Korea is supposed to have a comparative advantage. In the United States economy in 1980, it took 64 man-years of labour to produce \$1 million worth of output. Of these 64 man-years, 20 were in the industry itself, in the form of direct labour input. Of the remaining 44 man-years, 41 were in other industries supplying inputs to the textile industries, in other words, indirect domestic labour input. The remaining three man-years of input were imported. The labour content of imported materials is calculated on the basis of the importing country's technology, and for the time being it is assumed that all imports are competitive rather than complementary. Thus, if the United States imports \$1 million worth of textiles, 20 workers would lose their jobs in the textile industry and 41 elsewhere in the United States economy, with three jobs being lost abroad.

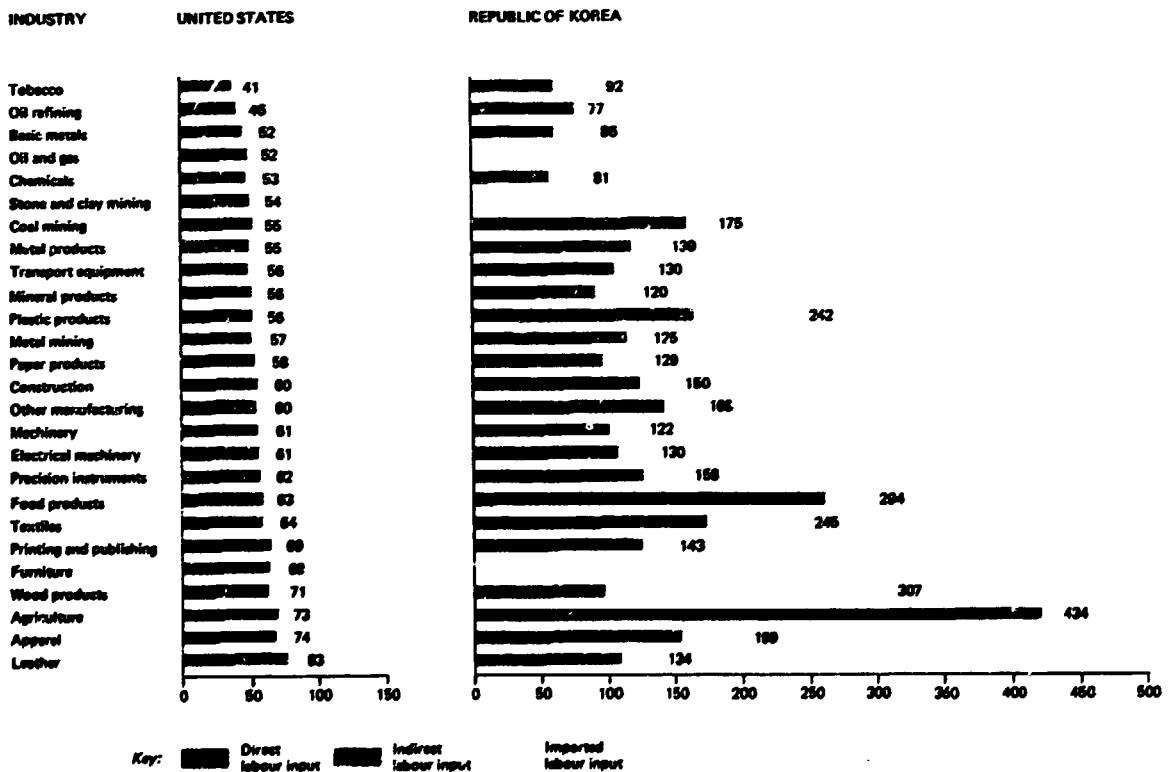
But the Republic of Korea, by contrast, required 245 man-years (95 direct plus 80 indirect plus 70 imported) to produce the same amount in textiles, nearly four times as many man-years as the United

States. In 1980, the Republic of Korea was the second largest developing country exporter of textiles to the United States. Its exports totalled \$418.7 million, or 16.5 per cent of total United States imports of textiles from developing countries. To explain this we have to look at the comparative wage rates in the two countries.

In 1980, the average annual wage for the industrial worker in the United States was \$16,406 and in the Republic of Korea \$2,890. Thus the United States worker made nearly six times as much as his counterpart in the Republic of Korea. In textiles, a relatively low-wage sector in both countries, the wages were \$11,268 and \$2,430, a fivefold difference. As cheap as labour in the Republic of Korea was in 1980, it was, even then, becoming more expensive. Thus, in 1975 the differential was 11.5 times for all manufacturing and 9.5 times for textiles. During those five years, United States wages rose by 48 per cent (46 per cent in textiles) while wages in the Republic of Korea (in dollar terms) rose by 200 per cent (187 per cent in textiles). But over the same period, labour productivity in the Republic of Korea increased by 64 per cent in textiles (more than 50 per cent overall), while in the United States it increased by only 10 per cent industry-wide and 15 per cent in the textile sector.

In 1975 the United States had a relative productivity advantage of 6.5, but wages in the United States were 8.5 times higher than in the Republic of Korea. By 1980 the gap stood at four times in labour productivity but six times in wage rates. Thus, despite the faster growth of wages compared with the United

Figure 3.21. Units of labour required per million dollars of output: inter-country comparison, 1980
(Man-years)



Source: UNIDO input-output data bank.

States, even faster than its own growth of labour productivity, the Republic of Korea was able to maintain the relative advantage in unit labour cost (the ratio of wages to labour productivity). This meant a lower labour share and higher share of profits in the Republic of Korea in relation to the United States.

A similar story can be told about the other developed market economies. Table 3.2 contains data on wages and productivity levels as well as growth rates. We have data for only five countries, excluding France. The table shows that in 1980 all the developed market economies had wages of between 3.5 and 5.8 times the wages in the Republic of Korea, while the productivity ratios ranged between 2.3 and 3.4. The growth rates reveal that the situation in 1980 persisted despite a much higher growth in unit labour cost in the Republic of Korea (123 per cent) than in the developed market economies (31-85 per cent). Despite this erosion in its comparative advantage, the Republic of Korea retained the edge in absolute terms.

There remains, however, the question of how much longer the Republic of Korea can retain its edge. A more serious question is whether, given the emotive reaction in the developed market economies, the Republic of Korea should continue to expand exports. We address this issue below.

E. Developing countries at the crossroads

As we argued in *Global Report 1985*, the world economy is showing increasing signs of paralysis. Ever since 1980, an improvement in the balance-of-payments position has become the preoccupation of most developed countries, with the traditional goals of full employment and economic growth conspicuously put aside. During this entire period, the only growth stimulus to world trade consisted in the United States initiative to encourage domestic expansion. Since this was done without too much concern about the balance-of-payments implications, the United States provided an expanding market for the exports of many countries.

Likewise, developing countries had managed to grow faster than developed countries from the 1950s until 1980, thus incurring deficits in their trade balance every year during this period. This meant that

the North has consistently emerged as a net gainer in employment. Given the enormous disparity in labour productivity, the South must then have been a "multiple net loser" in terms of employment.* It is strange, therefore, that the South is being accused of causing industrial unemployment in the North.

Even though facts do not change, one's perception of the facts does change. The South's perception for a number of years has been that trade is a positive sum game, whereby neither party needs to emerge as a net loser. The benefits from trade accrue to any country which avails itself of the opportunity to buy goods abroad cheaper than what they would cost to produce at home. The resulting saving in costs is like "windfall profits", leading to an increase in purchasing power and, subsequently, a rise in real incomes and employment. This perception of trade, which was originally that of the North, therefore relies on an expansion in industrial employment (growth at the "extensive margin") rather than productivity increases (growth at the "intensive margin") to promote industrial growth. Extra goods from abroad help to widen this extensive margin, and goods offered at cheaper prices (or as gifts) are readily accepted. Putting implicit faith in trade to generate growth and employment, the South did very well on both accounts.

In most developed countries, however, growth rates have stubbornly stayed below the 3.5 per cent mark since 1980. Unemployment figures have shown an uninterrupted increase, except in Japan and the United States. In certain respects, the "prudent economic policies" of reducing inflation and cutting down balance-of-payment deficits in developed countries have borne many bitter fruits. The present internationally institutionalized lower growth path cannot even absorb the natural growth of the labour force in developed countries. Given a lower expectation of growth and expansion, there is little wonder that attention is being shifted from the extensive margin to the intensive margin. For the time being, therefore, the North perceives trade as a job-replacing rather than a job-creating activity.

*A net gain of one job in developed countries through trade means that 24 workers in developing countries have to look for new jobs.

Table 3.2. Comparison of wages and productivity in the textile industry: Republic of Korea and five major developed market economies, 1975-1980

Country	Productivity ratio ^a 1980	Wage ratio ^b 1980	Productivity growth, 1975-1980 (percentage)	Wage growth in current dollars, 1975-1980 ^c (percentage)	Change in unit labour cost, 1975-1980 ^c (percentage)
Germany, Federal Republic of	3.2	5.8	18	85 (36)	67 (18)
Italy	3.4	3.8	57	104 (166)	47 (109)
Japan	3.0	3.5	28	94 (47)	66 (19)
Republic of Korea	1.0	1.0	64	187 (259)	123 (195)
United States	3.4	4.6	15	46 (46)	31 (31)
United Kingdom	2.3	3.7	19	104 (95)	85 (76)

Source: United Nations Industrial Statistics.

^aTotal labour content in the Republic of Korea divided by total labour content in each country.

^bWage in each country divided by wage in the Republic of Korea.

^cFigures within parentheses represent growth in terms of domestic currency.

Lester Thurow has predicted that world trade could shrink in the next 10 years because of a lack of coordination between economic policies of the major industrial countries. Furthermore, he thinks the three major industrial powers—Europe, the United States and Japan—will probably try to solve their domestic economic problems by isolating themselves from world trade. The United States will retreat until its products again become competitive on world markets through productivity growth; Europe will close its doors to imports to save jobs; and Japan will be forced, by others, to curtail its exports until it starts importing more [77].

If the major developed market economies retreat from world trade, where will this leave developing countries? In particular, what is going to happen to them when their perception of trade, as a dynamic tool of economic growth for all, is rejected by all the major actors in world trade? William Cline [78] cautions developing countries against prematurely turning back to inward-looking policies of the past because of a pessimistic view of export expansion. His reasoning is that political influence, not economic rationality, dominates decision-making on protectionism in developed countries. If developing countries therefore avoid continued expansion of manufactured exports at ever-increasing rates, and also avoid concentrating exports on the most sensitive products, the risk of a protective response from developed countries could be forestalled. Cline concludes that expansion of manufactured exports from developing countries as a whole, at rates exceeding 30 per cent per year, would

perhaps provoke protectionism, but rates of 10-15 per cent per year would be acceptable to developed countries.

This statement, however, rests on his somewhat optimistic growth projections for developed countries. As we have tried to describe elsewhere in this report, the prospects for any marked increase in growth rates in developed countries, especially to the extent of allowing a significant reduction in unemployment, do not exist for the time being, despite the fall in oil prices. This being the case, developing countries might indeed have to impose a speed limit on the expansion of manufactured exports, voluntarily or otherwise.

The evidence presented above suggests that the use of the deindustrialization issue as a pretext for trade restrictions is based on a misconception, at least in the current context. The real issue is the growth recession that has befallen both developed and developing countries, a recession that cannot be overcome by the efforts of developing countries alone.

Is there any alternative open to developing countries except to hope and wait for an initiative from the North at this juncture? The answer to this question has to be, unfortunately, a negative one. As was explained in *Global Report 1985*, South-South cooperation might have provided another opportunity for growth. Yet it requires more, not less, trade with the North. The idea that the South could solve its daunting economic problems wholly on its own seems increasingly to have been little more than an illusion.

Appendix

CASE-STUDIES OF SIX DEVELOPED MARKET ECONOMIES

A. Federal Republic of Germany

In 1975, the Federal Republic of Germany imported 75 billion dollars' worth of merchandise from abroad, of which \$54 billion consisted of manufactured products. Given the types and value of the products involved, the figures representing the foregone domestic employment opportunities amounted to 3.2 million man-years for the total and 2.5 million man-years for manufactured imports. In the same year, the country exported \$92 billion in total merchandise and \$88 billion in manufactured products. The total direct and indirect labour embodied in these export figures were 4.0 million and 3.8 million man-years, respectively. In net terms, therefore, merchandise trade contributed 700,000 extra employment opportunities for the economy, with manufacturing trade alone contributing 200,000 jobs in 1975.

Thanks to the extremely successful performance of manufactured exports, which accounted for \$50 billion and \$49 billion in net trade surpluses in 1980 and 1983, overall merchandise trade recorded net trade surpluses of \$2.6 billion and \$13 billion in those two years. For the Federal Republic of Germany, the resulting employment gains from merchandise trade were 640,000 man-years in 1980 and 821,000 in 1983.

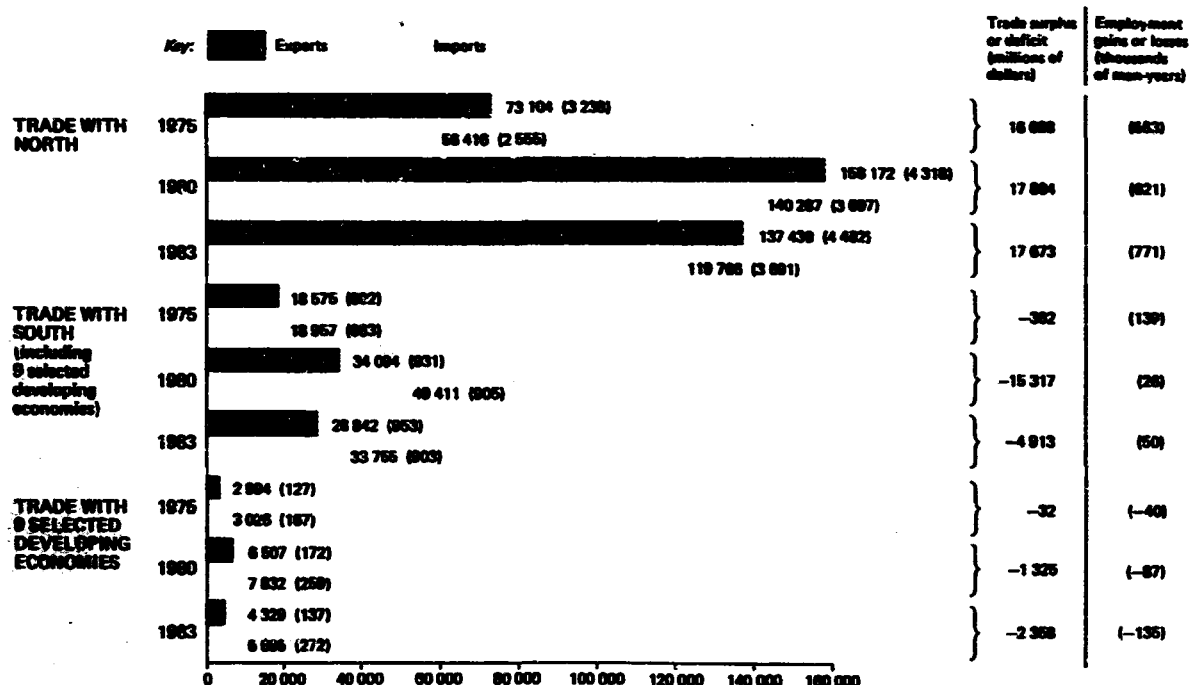
It is well known that the Federal Republic of Germany, while maintaining a strong overall foreign trade balance, has experienced a steadily deteriorating bilateral trade balance with the group of selected developing economies with a high share in manufacturing. Within the confines of overall merchandise trade, the Federal Republic of Germany indeed suffered a negative trade balance *vis-à-vis* our nine selected developing economies in each of the three periods under study. The deficit figures were \$32 million in 1975, \$1.3 billion in 1980 and \$2.4 billion in 1983. The employment loss figures in man-years associated with these negative trade balances were 40,000 in 1975, 87,000 in 1980 and 135,000 in 1983 (see figure 3.22).

Until 1980 the Federal Republic of Germany maintained a strong trade balance *vis-à-vis* the nine selected developing economies in manufactured products—the surplus figure in favour of the Federal Republic of Germany being \$648 million in 1975 and becoming minus \$262 million in 1980. The corresponding employment figures for the Federal Republic of Germany were plus 7,000 in 1975, minus 45,000 in 1980 and minus 93,000 in 1983. One should keep in mind that employment gains are not proportionate to trade surplus figures because they depend on the level as well as the composition of imports and exports.

Table 3.5 gives the sectoral breakdown of employment changes caused by trade with developing countries. The

Figure 3.22. Bilateral trade in merchandise and its employment implications: Federal Republic of Germany, 1975, 1980 and 1983

(Millions of current dollars; thousands of man-years^a)



Sources: UNIDO input-output data bank; United Nations Trade Statistics.

^aIndicated in parentheses.

Table 3.3. Net direct employment gains and losses through trade with developing countries: Federal Republic of Germany, 1975, 1980 and 1983

(Thousands of man-years)

Branch	Trade in 1975				Trade in 1980				Trade in 1983			
	With all developing countries		With 9 selected developing economies		With all developing countries		With 9 selected developing economies		With all developing countries		With 9 selected developing economies	
	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment
Agriculture	-145	-10	-35	-2	-142	-10	-30	-2	-139	-10	-31	-2
Basic metals	4	1	0	0	1	0	-1	0	2	1	-2	-1
Beverages	1	0	0	0	1	0	0	0	1	1	0	0
Shipbuilding	17	13	1	1	11	9	2	1	17	13	1	1
Automobiles	59	9	4	1	56	9	7	1	63	10	6	1
Chemicals	28	5	6	1	41	8	9	2	42	8	9	2
Coal and coal products	2	1	1	0	1	0	0	0	2	1	0	0
Electrical machinery	48	5	6	1	49	5	3	0	40	4	-3	0
Food products	-19	-4	-7	-2	-28	-6	-15	-3	-38	-9	-19	-4
Leather products	-13	-12	-4	-4	-25	-23	-9	-8	-17	-15	-6	-6
Machinery	154	14	29	3	148	14	32	3	130	12	20	2
Meat products	-2	-1	-1	-1	-3	-2	-2	-1	-4	-3	-2	-2
Metal products	12	1	1	0	11	1	1	0	11	1	1	0
Dairy products	1	1	0	0	4	6	0	0	3	5	0	0
Mineral products	5	1	1	0	3	1	0	0	4	1	0	0
Office machinery	6	2	-1	0	7	2	-1	0	9	3	-2	-1
Oil and oil refining	-23	-60	0	0	-22	-58	0	0	-12	-33	0	0
Paper products	2	0	0	0	2	0	0	0	3	1	-1	0
Other manufacturing	-2	-3	-2	-2	-4	-4	-4	-4	-2	-3	-3	-4
Rubber products	3	1	0	0	3	1	0	0	4	1	0	0
Textiles	-65	-10	-28	-4	-107	-16	-41	-6	-115	-17	-41	-6
Tobacco	0	0	0	0	0	0	0	0	0	1	0	0
Utilities	0	0	0	0	-1	0	0	0	0	0	0	0
Wood products	-7	-2	-3	-1	-13	-3	-6	-1	-8	-2	-5	-1
Total												
manufactures	229	3	4	0	156	2	-23	0	146	2	-46	-1

Source: UNIDO input-output data bank.

major source of new employment was exports of general machinery and automobiles. The biggest job losses are associated with imports in agriculture, textiles, leather, processed food and oil.

As may be seen from figure 3.23, these are the most labour-intensive sectors in the economy of the Federal Republic of Germany. For example, in 1975 the agricultural sector would have required 112.5 man-year inputs to produce 1 million dollars worth of output, while the petroleum refining sector would have required only 13.8 man-year inputs. Again in 1975, the leather, textiles and food-processing industries would have each required 83 to 93 man-year inputs to produce the equivalent value of output. On the other hand, the car manufacturing and machinery industries needed only 60 to 64 labour units to produce and export \$1 million worth of merchandise. Tables 3.4 and 3.5 provide additional data on the impact of trade on employment in the Federal Republic of Germany.

The Federal Republic of Germany has been one of the strongest of Western European economies in terms of balance of payments, the international value of its currency and its ability to remain at the forefront of technical progress. As our calculations show, it has done this by moving out of labour-intensive sectors and shifting production into sectors where its industrial structure is better adapted to modern requirements. This increases overall productivity in the economy and keeps prices low by replacing costly domestic products with cheap imports.

B. France

France is a European country that has shown a lethargic growth in recent years. Unlike the United Kingdom, as will be seen below, France experienced a negative trade balance

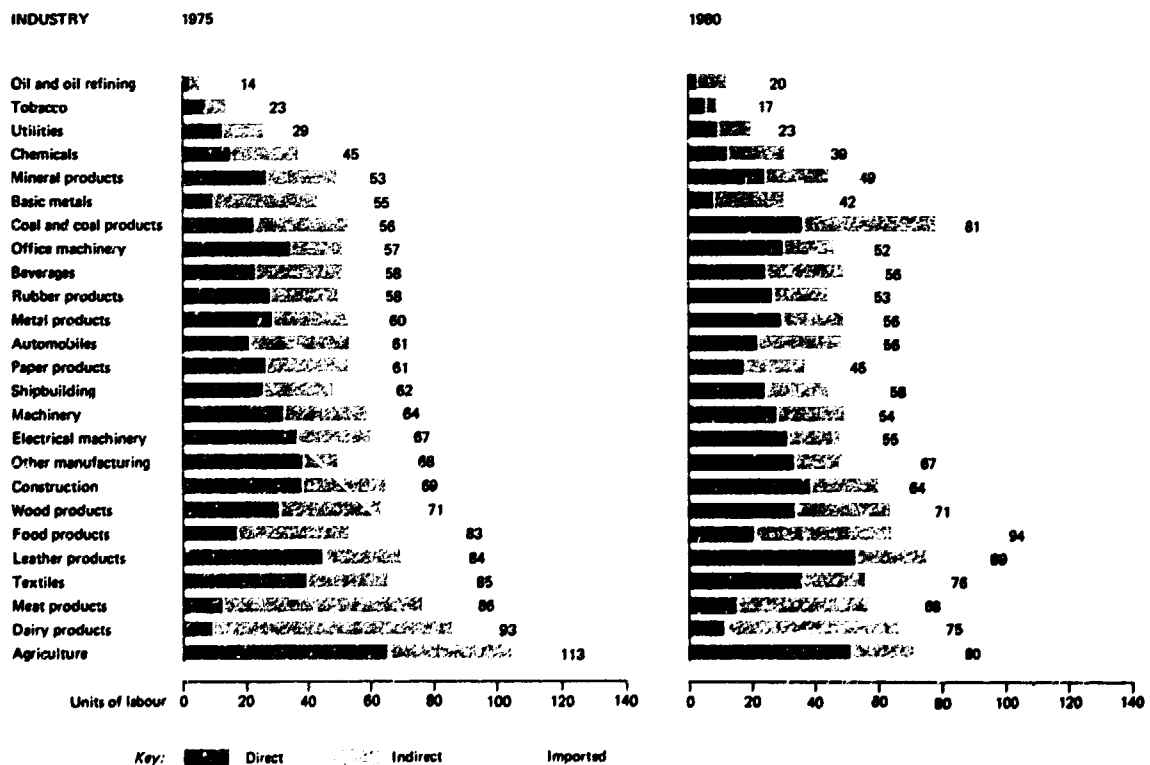
even with developing countries, recording \$0.9 billion, \$11 billion and \$2 billion merchandise trade deficits *vis-à-vis* the South as a whole in 1975, 1980 and 1983 respectively (see figure 3.24). Despite this persistent trade deficit, France has consistently derived employment benefits from its trade with the South. In fact, the net gains in employment for France through trade with the South have been quite substantial: 163,000 in 1975, 191,000 in 1980 and reached 308,000 in 1983. This somewhat puzzling result can be explained if one examines past manufacturing trade of France with developing countries.

While France has experienced a negative overall balance in merchandise trade with the South, its manufactured exports to developing countries have been 2.5 to 3 times larger than its imports. Given this absolute superiority in manufacturing trade and the high value-added content of the manufactured products involved, it is not surprising that the gains in employment outweighed the losses. The net employment gains through manufacturing trade with developing countries have been substantial: 352,000 in 1975, 376,000 in 1980 and 449,000 in 1983.

Developing countries with a high share in manufacturing have not posed any serious threat to France; the share of imports from our nine selected developing economies reached 4 per cent of France's total imports in 1980 and remained the same in 1983. In GDP terms, imports from these economies amounted to approximately 0.7 per cent in both 1980 and 1983. Furthermore, except for 1980, France has had a positive trade balance with these economies, although its employment gains have declined. Further trade and employment data are presented in figure 3.25 and tables 3.6 and 3.7.

The branches recording the largest gains in employment through trade with the South were machinery, electrical machinery, transport goods and chemicals, while the largest losses were in agriculture, oil, textiles and leather goods.

Figure 3.23. Units of labour required per million dollars of output: Federal Republic of Germany, 1975 and 1980



Source: UNIDO input-output data bank.

Table 3.4. Factors determining employment change: Federal Republic of Germany, 1975-1980

(Thousands of persons)

Branch	Employment levels		Net change	Employment change caused by changes in:			
	1975	1980		Domestic demand	External demand	Technology	Productivity
Agriculture	1 759	1 422	-337	37	-23	35	-387
Coal and coal products	244	195	-49	-12	-21	-161	144
Oil and oil refining	40	38	-2	-5	1	-3	5
Utilities	225	260	35	74	-1	26	-64
Basic metals	444	396	-48	52	-15	-11	-73
Mineral products	419	393	-26	38	-5	-24	-35
Chemicals	540	508	-32	80	35	-29	-118
Metal products	984	922	-62	184	33	-305	26
Machinery	1 121	1 075	-46	46	-26	77	-143
Office machinery	287	301	14	51	-26	24	-35
Electrical machinery	1 106	1 072	-34	82	-4	37	-149
Automobiles	556	642	86	50	74	-48	11
Shipbuilding	119	132	13	44	-33	10	-8
Meat products	140	143	3	-30	10	-1	23
Dairy products	59	69	10	-9	8	0	12
Food products	425	440	15	19	7	-84	73
Beverages	211	190	-21	13	-8	-39	13
Tobacco	38	38	0	7	1	3	-11
Textiles	795	681	-113	98	-41	-92	-78
Leather products	118	109	-10	22	-26	-27	21
Wood products	443	441	-2	40	-32	-50	40
Paper products	532	452	-80	89	4	13	-185
Rubber products	332	377	45	41	6	16	-18
Other manufacturing	68	85	17	15	2	9	-9
Construction	2 071	2 189	118	-25	23	91	29
Repair services	475	225	-249	-63	1	-80	-108
Trade	3 349	3 765	415	797	138	-255	-265
Lodging	721	844	123	158	13	28	-76
Inland transport	726	738	12	78	-38	136	-164
Maritime and air transport	130	95	-34	10	5	5	-54
Auxiliary transport services	113	89	-25	13	1	31	-70
Communications	447	460	13	100	2	0	-89
Credit services	680	730	50	171	-12	1	-110
Market services	1 736	2 036	300	193	-13	-66	188
Non-market services	157	372	215	139	-2	93	-14
Government services	4 136	4 327	191	1 393	3	0	-1 206
Total	25 746	26 251	505	3 988	43	-641	-2 885

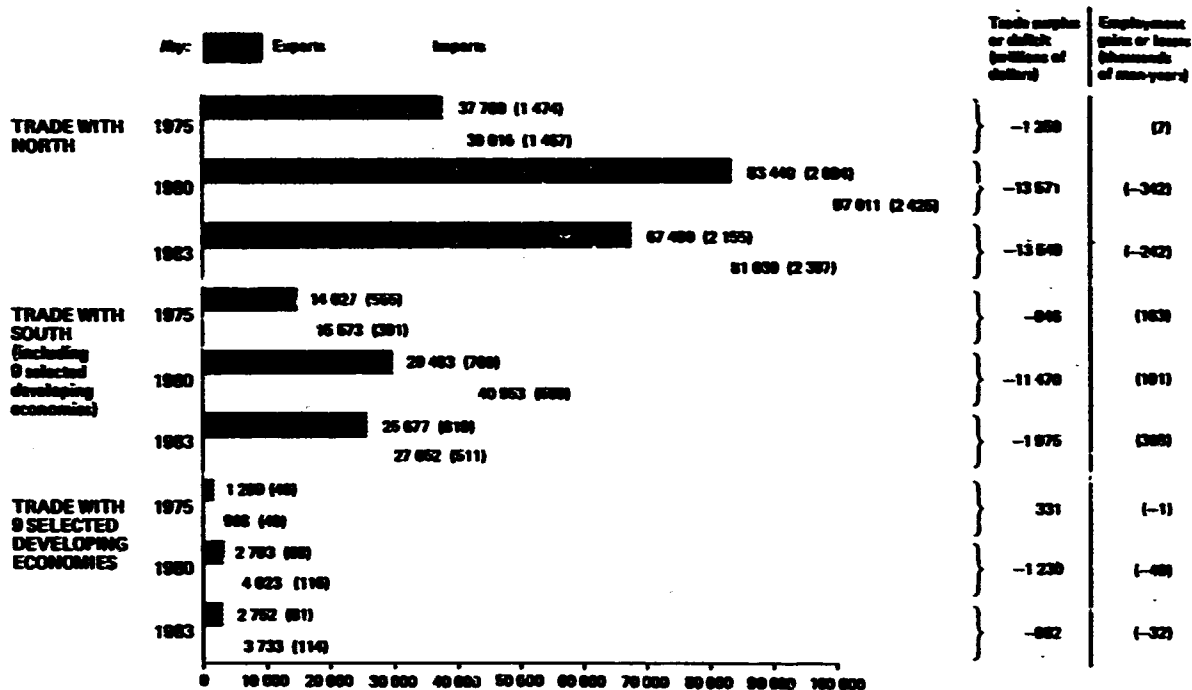
Source: UNIDO input-output data bank.

Table 3.5. Trade sensitive branches and products: Federal Republic of Germany, 1975, 1980 and 1983

Branch	Percentage of direct employment lost in trade with the South			Most important exporters and products, 1983			Most dynamic exporters and products, 1980-1983		
	1975	1980	1983	Exporter	Share (percentage)	Products	Exporter	Growth (percentage)	Products
Textiles	10	16	17	Hong Kong	23	Outer garments	United Republic of Tanzania	108	Cotton, yarn and thread
				Republic of Korea	14	Outer garments	Iraq	100	Carpets
				Turkey	19	Cotton, yarn and thread			
Leather products	12	23	15	Republic of Korea	19	Handbags	Sri Lanka	152	Handbags
				Hong Kong	15	Handbags	Islamic Republic of Iran	71	Saddlery
				India	15	Leather of sheep and goat skins			
Food products	4	6	9	Brazil	25	Oil-seed cake, fruit and vegetable juice	Senegal	50	Oil-seed cake
				Thailand	18	Roots and tubers, dried	Haiti	34	Preserved fruit

Sources: UNIDO input-output data bank; United Nations Trade Statistics.

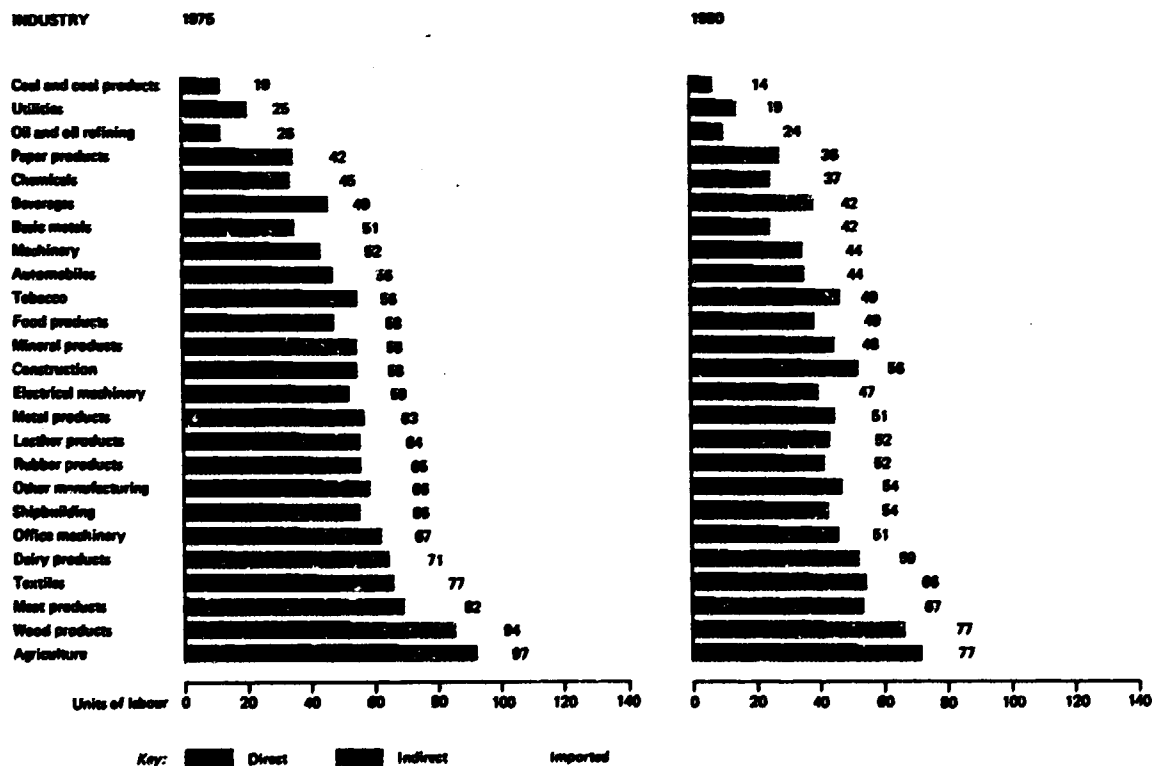
Figure 3.24. Bilateral trade in merchandise and its employment implications: France 1975, 1980 and 1983
(Millions of current dollars; thousands of man-years^a)



Sources: UNIDO input-output data bank; United Nations Trade Statistics.

^aIndicated in parentheses.

Figure 3.25. Units of labour required per million dollars of output: France 1975 and 1980



Source: UNIDO input-output data bank.

Table 3.6. Net direct employment gains and losses through trade with developing countries: France, 1975, 1980 and 1983

(Thousands of man-years)

Branch	Trade in 1975				Trade in 1980				Trade in 1983			
	With all developing countries		With 9 selected developing economies		With all developing countries		With 9 selected developing economies		With all developing countries		With 9 selected developing economies	
	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment
Agriculture	-58	-3	-13	-1	-54	-3	-16	-1	-53	-3	-16	-1
Basic metals	6	3	0	0	8	4	0	0	10	5	0	0
Beverages	5	5	1	2	8	8	2	3	9	9	3	3
Shipbuilding	23	11	3	1	20	10	1	0	38	19	8	4
Automobiles	31	7	2	0	35	7	2	0	30	6	2	0
Chemicals	18	5	2	1	25	8	3	1	30	9	4	1
Coal and coal products	0	0	0	0	0	0	0	0	0	-1	0	0
Electrical machinery	36	7	3	1	41	9	1	0	42	9	-3	-1
Food products	-4	-2	-2	-1	-4	-2	-6	-3	-8	-4	-7	-3
Leather products	-2	-2	-1	-1	-7	-7	-3	-3	-8	-8	-3	-3
Machinery	60	17	7	2	63	18	6	2	69	20	8	2
Meat products	0	0	0	0	1	1	0	0	2	2	0	0
Metal products	17	2	1	0	20	3	1	0	27	4	2	0
Dairy products	2	2	0	0	5	6	0	0	4	5	0	0
Mineral products	2	1	0	0	2	1	0	0	5	2	0	0
Office machinery	6	4	1	0	7	5	-1	-1	5	4	-1	-1
Oil and oil refining	-54	-39	0	0	-53	-38	-1	0	-32	-23	-1	-1
Paper products	4	2	0	0	6	3	0	0	4	2	0	0
Other manufacturing	1	1	0	0	-5	-4	-3	-3	-3	-3	-4	-3
Rubber products	8	3	0	0	10	4	0	0	10	4	0	0
Textiles	2	0	-2	0	-15	-3	-7	-1	-14	-2	-6	-1
Tobacco	0	0	0	0	0	0	0	0	0	1	0	0
Utilities	-1	0	0	0	-3	-2	0	0	-2	-1	0	0
Wood products	-7	-2	-2	-1	-16	-5	-6	-2	-3	-1	-3	-1
Total manufactures	207	4	12	0	206	4	-9	0	251	5	1	0

Source: UNIDO input-output data bank.

C. Italy

Traditionally, the main trading partners of Italy have been the major industrialized countries. During the last ten years the share of Italy's manufactured exports to developing countries has remained unchanged, at roughly 25 per cent of its total exports, and the share of its imports from developing countries has changed slightly from 10 per cent to 11 per cent.

Italy has consistently emerged as a net gainer of employment in trade with developing countries as a whole. In total merchandise trade, the net job gains for Italy were 1,300 in 1975, 108,000 in 1978 and 260,000 in 1983 (see figure 3.26). The employment gains for Italy from trade in manufactured products were, however, much larger, reaching 338,000 in 1975, 456,000 in 1978 and 550,000 in 1983. The list of gainers is headed by the machinery branch and includes metal processing, electrical machinery, chemical products, transport equipment etc. The net losses were caused by adverse trade balances in agriculture and crude and refined petroleum, and by imports of leather, processed food and meat products. The wood industry, which caused a net loss of 21,400 jobs in 1975, became a net contributor by 1978, and in 1983 the industry gained 28,840 jobs (16,920 in its own and 11,920 in other branches of the economy) through trade with developing countries.

The picture changes somewhat if the focus is on Italian trade with our nine selected developing economies. Italy consistently lost employment in total merchandise trade with this group. The losses amounted to 77,000 workers in

1973, 90,000 in 1980 and 79,000 in 1983. But these losses were mainly caused by large imports of agricultural products from these economies. The other sectors where job losses could be discovered in trade with the nine selected developing economies all contributed very small amounts of less than 3,000 job losses from direct effects. Branches which directly suffered over 1,000 job losses include leather, textiles, cars and office machinery. Italy, however, gains jobs overall in its trade with the South in three of these four branches, the exception being leather products. Given the high reputation of Italian leather goods, this may merely reflect a decline in demand for leather as an intermediate product (see figure 3.27 and tables 3.8 and 3.9 for detailed data).

The case of Italy once again shows that it is the non-competitive imports—agriculture and oil—which suffer the major job losses. Of the likely competitive products, it is once again the agro-based industries (food products and leather) which figure prominently. The job losses here may be a result of the high level of aggregation, since some of the food products may not lend themselves to production in Italy, and a share of the leather products may be inputs to Italian exporters. The example of Italy, like that of Japan, thus shows that the estimated job losses substantially overstate the true situation.

D. Japan

As we have seen, the total increase in domestic employment attributable to Japanese merchandise trade during the period 1975-1980 was 217,000. The manufacturing sector

Table 3.7. Factors determining employment change: France, 1975-1980

(Thousands of persons)

Branch	Employment levels		Net change	Employment change caused by changes in:			
	1975	1980		Domestic demand	External demand	Technology	Productivity
Agriculture	2 127	1 868	-259	143	86	-2	-485
Coal and coal products	11	6	-5	3	-4	0	-4
Oil and oil refining	156	138	-18	50	-19	-11	-39
Utilities	135	163	29	60	-2	5	-34
Basic metals	267	220	-47	46	1	-14	-79
Mineral products	315	286	-29	25	-14	20	-60
Chemicals	336	325	-11	67	7	5	-91
Metal products	730	674	-56	129	-5	-44	-136
Machinery	394	350	-44	53	-25	-3	-68
Office machinery	131	135	4	67	-37	8	-34
Electrical machinery	494	479	-15	131	-41	10	-114
Automobiles	453	479	27	131	-9	30	-126
Shipbuilding	232	205	-28	17	24	-78	-41
Meat products	83	104	20	14	-1	0	7
Dairy products	89	88	-1	2	6	3	-13
Food products	231	215	-17	18	4	13	-52
Beverages	87	92	5	8	7	-1	-8
Tobacco	90	76	-14	2	-5	0	-11
Textiles	684	578	-106	28	-48	-7	-79
Leather products	110	89	-21	11	-12	-1	-19
Wood products	353	335	-18	69	-29	12	-70
Paper products	217	216	-1	55	-14	0	-42
Rubber products	245	246	1	46	-7	30	-68
Other manufacturing	123	109	-14	20	-13	3	-23
Construction	1 890	1 815	-75	-43	0	-9	-22
Repair services	349	346	-3	44	5	-8	-44
Trade	2 583	2 747	164	363	19	37	-255
Lodging	572	594	22	72	0	-1	-50
Inland transport	628	635	7	89	5	-37	-50
Maritime and air transport	69	72	3	7	9	6	-19
Auxiliary transport services	155	166	11	29	0	0	-19
Communications	407	458	51	129	-3	49	-124
Credit services	496	539	43	98	2	15	-72
Market services	2 277	2 858	581	533	-20	99	-31
Non-market services	1 270	1 474	204	359	3	-2	-156
Government services	2 442	2 438	-4	327	0	0	-331
Total	21 231	21 617	386	3 203	-130	177	-2 864

Source: UNIDO input-output data bank.

was largely responsible for this net gain. In particular, the machinery-producing industries (general and electrical machinery and motor vehicles) found a rapidly expanding market in developing countries, particularly in those that were investing heavily in their own export industries. Traditionally, Japan trades more with developing than with developed countries. In 1975 its total merchandise imports from developing countries was \$37.8 billion, compared with \$25.5 billion from developed countries. In 1980, its total merchandise imports from developing countries increased to \$103.9 billion, while the figures for imports from developed countries was only \$50.5 billion. With current accounts in deficit, Japan reduced imports from all sources in 1983, but imports from developing countries remained much greater than those from developed countries (see figure 3.28).

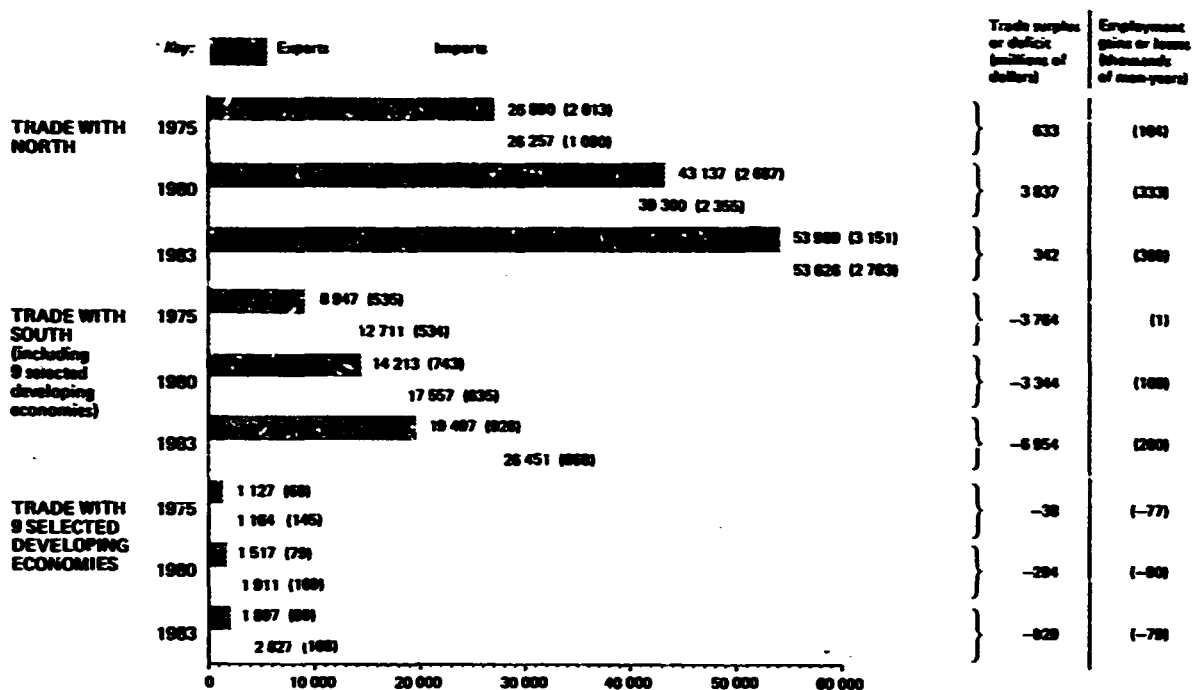
One obvious reason for these import figures is the dependence of Japan on developing countries for raw materials (including crude oil) and semi-finished products. This becomes apparent if the labour content of imports from different sources is compared. For example, in 1975, 1 million dollars' worth of imports from developed countries would have replaced 79.5 domestic workers in Japan, but the same amount of imports from developing countries would have cost Japanese workers only 50.9 jobs. These relationships changed only slightly by 1983—the labour content of \$1 million (in 1975 constant dollars) of imports from developed countries became 75.2 workers and the

imports from developing countries contained 52.2 man-years of domestic labour.

The increase in the labour content of imports from developing countries represents the following two separate but interrelated events: the share of manufactured products in total imports from developing countries increased in volume from 29 per cent in 1975 to 39 per cent in 1983; and the share of imports from selected developing countries with a high share in manufacturing increased from 15 per cent to 23 per cent, again in volume terms. The labour content of manufactured products is much greater than that of raw materials or semi-finished products. In 1983, for example, Japan's manufactured imports from developing countries contained 60.1 man-years—compared with 52.2 man-years for all merchandise—of domestic labour per million dollars (in 1975 constant value).

In 1975 Japan imported 10.3 billion dollars' worth of manufactured products from developing countries, which, on an average, would have required 67.7 domestic workers per million dollars of output. Japan paid for these imports with manufactured products which took, on an average, 54.3 workers per million dollars of output. The labour content figures in the subsequent years were 53.8 workers in exports and 64.8 in imports in 1980, and 54.1 workers in exports and 60.1 in imports in 1983, all in terms of 1 million dollars' worth of output in 1975 constant value. This means that if Japan exported no more and no less than what it

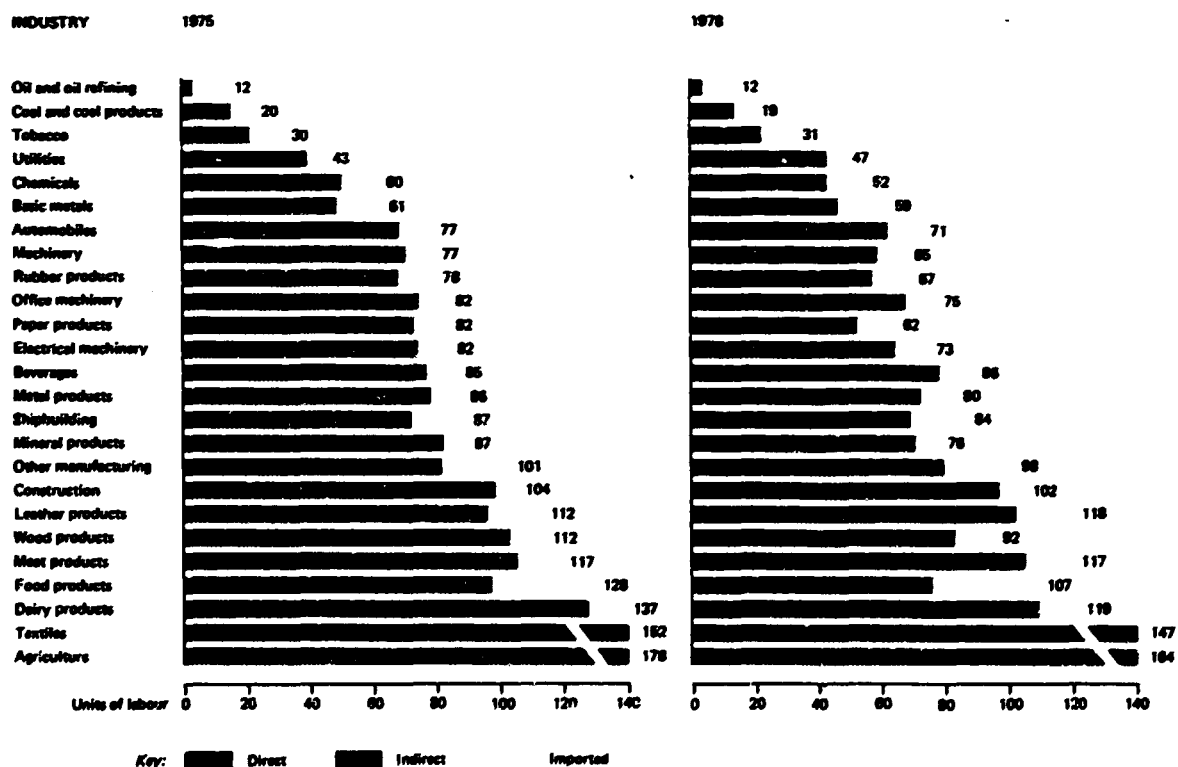
Figure 3.26. Bilateral trade in merchandise and its employment implications: Italy, 1975, 1980 and 1983
(Millions of current dollars; thousands of man-years^a)



Sources: UNIDO input-output data bank; United Nations Trade Statistics.

^aIndicated in parentheses.

Figure 3.27. Units of labour required per million dollars of output: Italy, 1975 and 1978



Source: UNIDO input-output data bank.

Table 3.8. Net direct employment gains and losses through trade with developing countries: Italy, 1975, 1980 and 1983

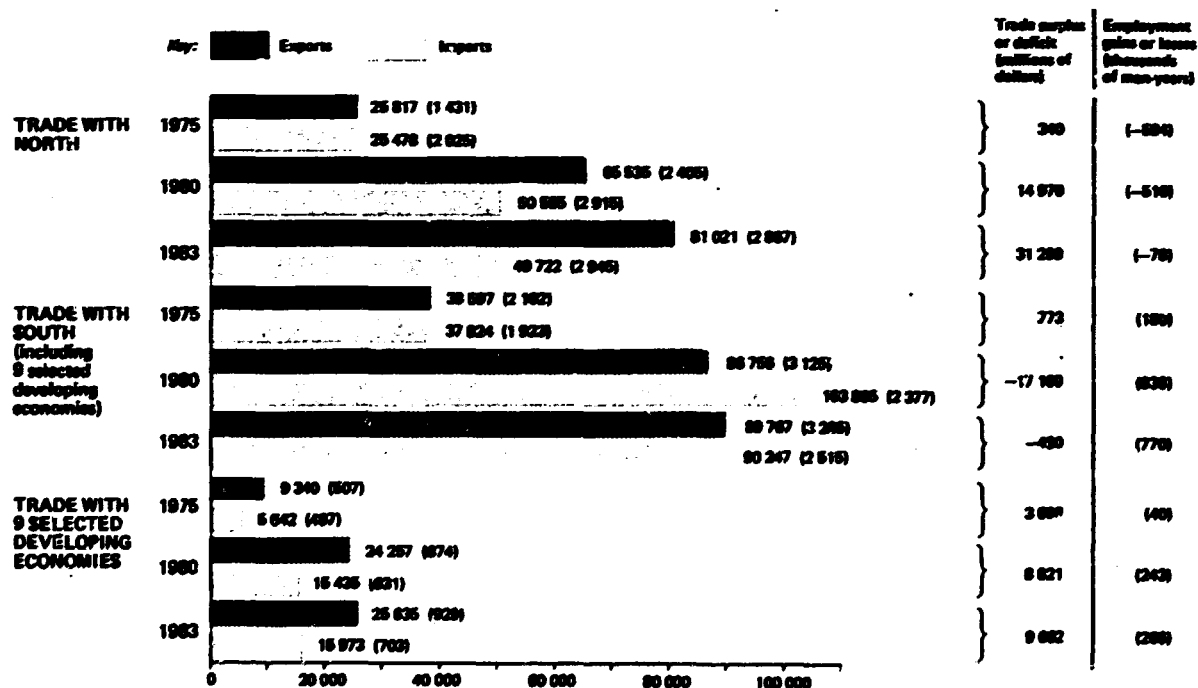
(Thousands of man-years)

Branch	Trade in 1975				Trade in 1980				Trade in 1983			
	With all developing countries		With 9 selected developing economies		With all developing countries		With 9 selected developing economies		With all developing countries		With 9 selected developing economies	
	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment
Agriculture	-219	-8	-76	-3	-226	-8	-70	-2	-190	-7	-54	-2
Basic metals	12	4	1	0	17	6	2	1	8	3	-1	0
Beverages	0	0	0	0	1	1	0	0	0	0	0	0
Shipbuilding	9	7	1	0	17	13	3	2	16	12	2	2
Automobiles	23	9	2	1	21	8	2	1	11	4	-2	-1
Chemicals	15	5	2	1	23	8	3	1	25	8	3	1
Coal and coal products	0	2	0	0	0	2	0	0	3	0	0	0
Electrical machinery	26	7	5	1	33	8	2	1	36	9	2	0
Food products	-5	-2	-2	-1	-7	-3	-4	-1	-3	-1	-3	-1
Leather products	-8	-3	-1	0	-9	-3	-1	0	-8	-3	-1	-1
Machinery	65	17	12	3	68	17	7	2	84	21	8	2
Meat products	-1	-1	0	-1	-1	-2	-1	-1	-1	-2	-1	-1
Metal products	14	3	1	0	23	5	1	0	36	8	2	0
Dairy products	0	0	0	0	0	0	0	0	0	0	0	0
Mineral products	4	1	1	0	15	4	1	0	27	7	3	1
Office machinery	6	7	1	1	4	5	0	0	0	0	-2	-3
Oil and oil refining	-14	-50	0	0	-15	-53	0	0	-11	-41	0	-1
Paper products	2	1	0	0	3	1	0	0	1	0	0	0
Other manufacturing	7	5	0	0	29	20	0	0	48	33	-1	0
Rubber products	4	2	0	0	6	3	0	0	7	3	0	0
Textiles	6	1	-3	0	6	0	-5	0	4	0	-3	0
Tobacco	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0
Wood products	-3	-1	-1	0	4	1	-2	0	17	4	0	0
Total manufactures	176	3	17	0	251	4	9	0	307	5	6	0

Source: UNIDO input-output data bank.

Figure 3.28. Bilateral trade in merchandise and its employment implications: Japan, 1975, 1980 and 1983

(Millions of current dollars; thousands of man-years^a)



Sources: UNIDO input-output data bank; United Nations Trade Statistics.

^aIndicated in parentheses.

Table 3.9. Factors determining employment change: Italy, 1975-1978
(Thousands of persons)

Branch	Employment levels		Net change	Employment change caused by changes in:			
	1975	1978		Domestic demand	External demand	Technology	Productivity
Agriculture	3 047	2 919	-128	243	-234	140	-277
Coal and coal products	4	5	1	0	0	0	1
Oil and oil refining	20	28	7	1	0	-2	8
Utilities	162	158	-3	-40	-1	0	37
Basic metals	281	284	3	17	12	4	-31
Mineral products	414	406	-8	11	38	21	-77
Chemicals	308	300	-8	5	-8	40	-44
Metal products	437	436	-1	-30	39	22	-32
Machinery	391	392	1	2	47	16	-63
Office machinery	85	83	-2	7	-8	8	-9
Electrical machinery	398	398	0	24	10	46	-80
Automobiles	238	245	8	41	-8	13	-39
Shipbuilding	130	129	-2	-10	14	4	-9
Meat products	67	66	-1	3	-3	2	-3
Dairy products	46	54	8	15	-5	3	-5
Food products	277	267	-10	15	-3	1	-24
Beverages	61	59	-2	4	-1	-5	-1
Tobacco	18	21	2	0	0	0	2
Textiles	1 199	1 154	-45	-316	59	-14	127
Leather products	231	263	32	-13	30	-5	20
Wood products	463	434	-28	28	38	6	-100
Paper products	260	256	-4	28	1	36	-68
Rubber products	215	214	-1	1	14	10	-26
Other manufacturing	107	144	36	-10	52	-2	-4
Construction	1 749	1 724	-25	14	4	-3	-40
Repair services	585	572	-13	15	13	15	-56
Trade	2 320	2 481	161	201	51	25	-115
Lodging	625	635	10	67	2	14	-72
Inland transport	703	738	35	50	22	42	-79
Maritime and air transport	64	62	-2	0	4	2	-9
Auxiliary transport services	140	144	4	4	12	8	-20
Communications	226	238	12	12	3	11	-13
Credit services	265	306	41	18	5	9	9
Market services	1 196	1 343	147	54	17	9	67
Non-market services	506	459	-47	-12	1	-13	-23
Government services	2 808	3 053	245	73	8	16	148
Total	20 046	20 469	423	523	324	477	-901

Source: UNIDO input-output data bank.

imported from developing countries, it would have saved, on an average, 4 to 10 workers per one-million-dollar transaction, a pure gain from trade, or a displacement of domestic labour, depending on the point of view. In reality, Japan always exported more than it imported. Japanese manufactured exports to developing countries were three to four times greater than its manufactured imports from developing countries. The resulting gains in direct and indirect employment for the Japanese economy as a whole attributable to manufactured trade with developing countries were 1.4 million jobs in 1975, 2.1 million in both 1980 and in 1983.

The relative supremacy of Japan over developing countries in manufacturing trade extends even to selected developing countries with a high share in manufacturing. Japan has enjoyed a roughly 200 per cent edge in exports *vis-à-vis* our nine selected developing economies. In this special bilateral trade relationship, Japan thus emerged as a consistent and huge net gainer in employment.

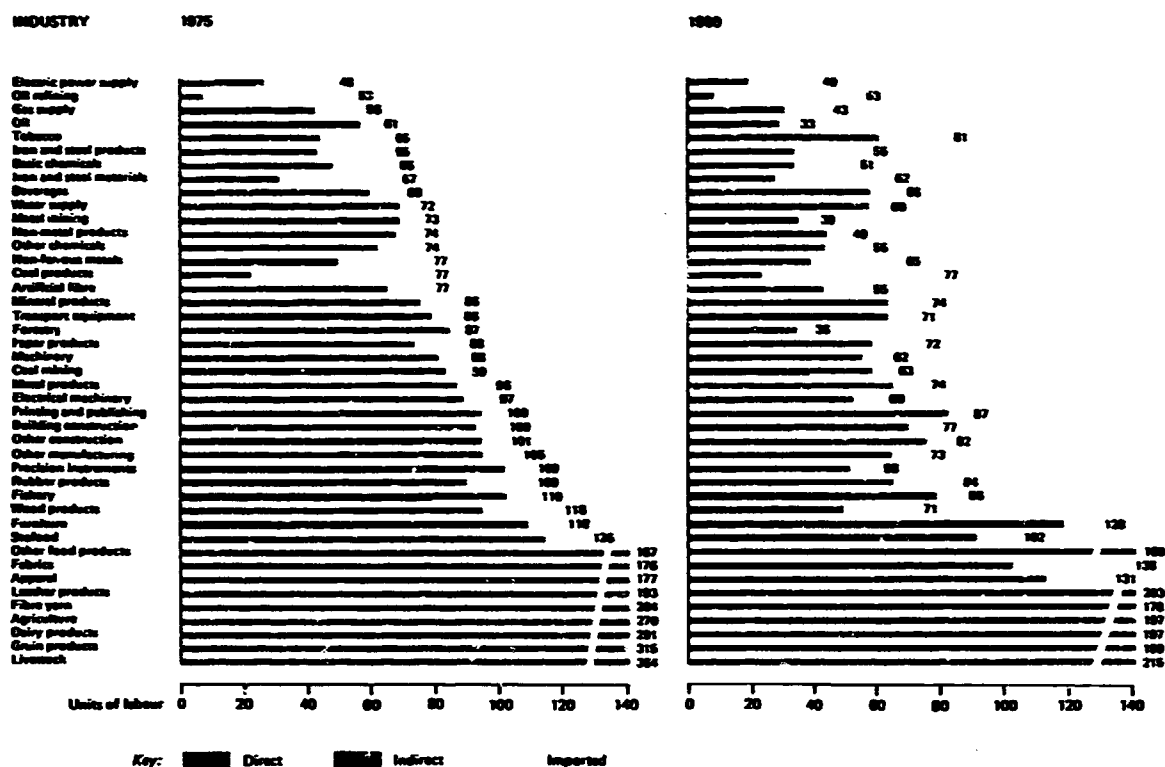
These overall net gains in employment are mostly due to the export performances of 10 or 11 manufacturing branches, including transport equipment, general and electrical machinery, textile fabrics and artificial fibres, metal products, scientific and precision instruments etc. As expected, branches responsible for a negative employment effect economy-wide were primarily in the agricultural or raw-

material processing group of industries (see figure 3.29 and tables 3.10 and 3.11).

In the manufacturing sector proper, only a few industries suffered direct employment losses as a result of trade with developing countries. In 1983 they were as follows: seafood processing (-22 per cent), petroleum refineries (-10.6 per cent), apparel (-9 per cent), other food processing (-8 per cent) and non-ferrous metals (-5 per cent). On the other hand, the branches deriving direct employment benefits from trade with developing countries numbered fifteen. These include iron and steel (16.0 per cent), precision instruments (15.8 per cent), rubber products (15.4 per cent), electrical machinery (14.8 per cent), general machinery (14.7 per cent), artificial fibres (14.6 per cent) and transport equipment (12.9 per cent).

For Japan, therefore, the import pattern is dominated by sectors which, though treated as competitive in our analysis, are in fact complementary. If Japan did not import crude petroleum, it is unlikely that the indicated job loss of 269,000 would actually become a net addition to employment. Thus, the positive contribution of imports of petroleum, metal ores and coal must outweigh the indicated job loss. This again is an illustration of the need to treat the job loss number cautiously. As a country poor in raw materials, Japan has adopted an import strategy that is appropriate for its economy, and attempts to restrict such imports will only be harmful.

Figure 3.29. Units of labour required per million dollars of output: Japan, 1975 and 1980



Source: UNIDO input-output data bank.

Table 3.10. Net direct employment gains and losses through trade with developing countries: Japan, 1975, 1980 and 1983

(Thousands of man-years)

Branch	Trade in 1975				Trade in 1980				Trade in 1983			
	With all developing countries		With 9 selected developing economies		With all developing countries		With 9 selected developing economies		With all developing countries		With 9 selected developing economies	
	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment
Agriculture	-400	-8	-127	-2	-328	-6	-113	-2	-439	-8	-153	-3
Apparel	-33	-5	-16	-3	-55	-9	-22	-4	-56	-9	-22	-3
Artificial fibre	14	15	5	5	12	13	3	3	14	15	4	4
Basic chemicals	17	10	5	3	12	7	4	2	7	4	2	1
Beverages	0	0	0	0	1	1	0	0	1	1	0	0
Coal mining	-2	-8	0	0	-6	-22	0	0	-9	-34	0	0
Coal products	0	1	0	0	1	3	0	1	0	2	0	1
Oil	-278	-6 288	0	-1	-301	-6 811	-8	-177	-269	-6 092	-14	-312
Dairy products	-2	-1	-1	-1	-2	-2	-1	-1	-3	-3	-1	-1
Electrical machinery	68	5	19	1	196	13	57	4	220	15	72	5
Fabrics	90	10	23	2	79	8	23	2	87	9	27	3
Fibre yarn	6	4	0	0	5	3	-1	-1	13	8	5	3
Fishery	-27	-6	-13	-3	-27	-6	-12	-3	-34	-7	-14	-3
Forestry	-16	-7	-4	-2	-64	-28	-21	-9	-48	-21	-21	-9
Furniture	-1	0	-1	0	-3	-1	-2	0	-4	-1	-1	0
Grain products	0	0	0	0	0	0	0	0	0	0	0	0
Iron and steel materials	4	5	2	2	3	3	1	1	0	0	0	0
Iron and steel products	58	12	11	2	70	15	14	3	78	16	14	3
Leather products	1	1	3	3	-4	-4	0	0	-2	-2	3	4
Livestock	-8	-1	-1	0	-12	-1	-1	0	-19	-1	-2	0
Machinery	105	7	31	2	197	14	58	4	208	15	59	4
Metal mining	-67	-669	-18	-178	-81	-815	-26	-260	-67	-668	-20	-197
Metal products	42	4	9	1	74	7	15	1	70	6	18	2
Mineral products	12	2	3	0	24	4	6	1	32	5	9	1

Branch	Trade in 1975				Trade in 1980				Trade in 1983			
	With all developing countries		With 9 selected developing economies		With all developing countries		With 9 selected developing economies		With all developing countries		With 9 selected developing economies	
	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment
Non-metal products	-5	-4	-1	-1	-5	-5	-1	-1	-5	-4	-1	-1
Non-ferrous metals	-1	-1	1	1	-10	-6	-2	-1	-9	-5	-1	-1
Other chemicals	4	1	1	0	5	1	1	0	6	2	1	0
Other food products	-71	-9	-30	-4	-43	-6	-16	-2	-62	-8	-25	-3
Other manufacturing	-3	0	-1	0	-4	-1	-1	0	-9	-1	-2	0
Paper products	8	2	2	1	4	1	1	0	8	2	3	1
Oil refining	-2	-8	0	-1	-3	-11	0	-1	-3	-11	-1	-1
Precision instruments	23	7	8	2	53	16	19	6	54	16	19	6
Printing and publishing	1	0	0	0	3	0	1	0	4	1	1	0
Rubber products	22	9	3	1	33	13	5	2	38	15	6	2
Seafood	-22	-13	-6	-4	-25	-15	-7	-4	-36	-22	-11	-6
Tobacco	0	0	0	0	0	0	0	0	0	0	0	0
Transport equipment	191	13	25	2	219	15	39	3	193	13	36	2
Wood products	-4	-1	-2	0	-15	-3	-6	-1	-11	-3	-4	-1
Total manufactures	530	4	92	1	827	6	187	1	834	6	212	2

Source: UNIDO input-output data bank.

E. United Kingdom

Although the United Kingdom suffers an almost chronic balance of trade deficit, its position in relation to developing countries has never been threatened since 1975, when it imported 15.5 billion dollars' worth of merchandise from the South, including crude oil which had become suddenly expensive. Its exports to the South that year were only \$13.4 billion, resulting in a trade deficit of \$2.1 billion. Nevertheless, the United Kingdom had a net gain of half a million jobs because of the large manufactured product content of its exports (see figure 3.30 and table 3.12).

In subsequent years, the United Kingdom managed to increase its manufactured exports to developing countries at a rapid rate. By 1980, the deficit almost disappeared and by 1983 the United Kingdom pulled ahead to enjoy a surplus of more than \$3 billion in its overall merchandise trade with developing countries. Meanwhile, the manufactured product content of its imports from the South has been increasing as well, diminishing its advantage in employment. The net gain in employment for the United Kingdom in 1980 was 161,000 jobs, dropping to 136,000 in 1983.

To some extent, selected developing countries with a high share in manufacturing are responsible for this decline in the United Kingdom employment advantage. The United Kingdom imported merchandise worth \$2.2 billion from our nine selected developing economies in 1975. This figure more than doubled to become \$5.1 billion within a five-year span. By 1983, however, the United Kingdom had not only managed to halt this trend, but brought imports from these countries down to \$4.6 billion. During this period, United Kingdom imports from developed countries have been continuously increasing.

The adverse trade balance *vis-à-vis* the nine selected developing economies led to potential job losses to the economy of 8,000 in 1975, 110,000 in 1980 and 143,000 in 1983. This, however, should be viewed in a proper perspective. Up to 1975, the United Kingdom export performance had been strong, supported partly by repeated depreciation of the pound sterling. However, higher prices for imported materials soon increased domestic production costs, causing

a steadily declining international competitiveness of United Kingdom products. Foreign import penetration, therefore, has been one of the main factors responsible for the poor employment record of the United Kingdom in recent years. Indeed, the overall United Kingdom trade balance would have been much worse without the surplus recorded in its trade with the South.

Traditionally, United Kingdom imports from the South have been mainly in agriculture and agro-based industries (food and meat products, wood and leather). After the Second World War, the South acquired a cost advantage in textiles, and in recent years the United Kingdom shipbuilding industry has come under considerable pressure from a number of developing countries, including Ecuador, India, Oman, the Republic of Korea and Saudi Arabia. In electrical and office machinery, the United Kingdom gains overall in its trade with the South, but loses in trade with the nine selected developing countries. The losses are, however, small in relation to the labour force employed in the branch; for electrical machinery they amount to 1.3 per cent in direct losses and 2.3 per cent economy-wide (direct plus indirect), and for office machinery 2 per cent in direct losses and 3 per cent economy-wide (see figure 3.31 and tables 3.13 and 3.14).

F. United States

Traditionally, the impact of foreign trade on employment in the United States has been modest because the level of economic activity in the United States depends largely on domestic demand. Nevertheless, trade has of late become a very sensitive issue.

In 1973, United States merchandise exports amounted to \$78 billion, of which \$36 billion was to developing countries. In the same year, the United States imported a total of \$70 billion worth of merchandise from abroad, of which \$33 billion came from developing countries. By 1980, the United States balance of merchandise trade became negative, exporting \$229 billion and importing \$285 billion. This was partly the result of dollar depreciation because, in volume

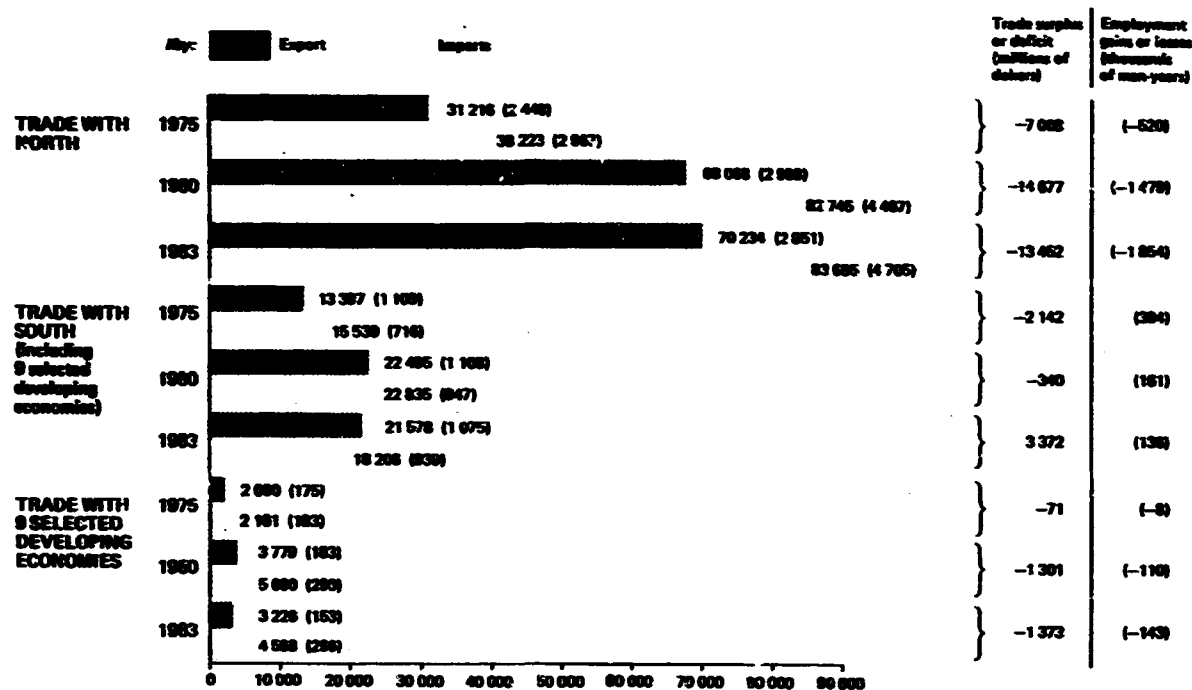
Table 3.11. Factors determining employment change: Japan, 1975-1980

(Thousands of persons)

Branch	Employment levels		Net change	Employment change caused by changes in:			
	1975	1980		Domestic demand	External demand	Technology	Productivity
Agriculture	5 517	5 190	-327	1 606	-310	463	-2 087
Livestock	2 101	1 462	-639	429	-52	-9	-1 007
Agricultural services	118	121	2	35	-6	1	-28
Forestry	221	230	9	114	-74	101	-132
Fishery	492	467	-25	93	-26	33	-125
Coal mining	32	26	-6	26	31	-53	-10
Metal mining	15	10	-5	22	0	-19	-8
Oil	7	4	-2	98	-36	-61	-4
Non-metal products	140	113	-27	37	3	-5	-63
Dairy products	116	111	-5	32	-5	4	-36
Seafood	236	163	-72	15	-15	-2	-71
Grain products	21	23	2	8	0	2	-8
Other food products	795	777	-19	145	-46	-30	-88
Beverages	114	108	-6	15	-14	-5	-2
Tobacco	40	44	4	1	-1	0	3
Fibre yarn	203	158	-45	21	-4	-32	-29
Fabrics	1 180	939	-241	79	-46	31	-306
Apparel	839	637	-202	100	-22	-6	-274
Wood products	532	438	-94	123	-18	78	-278
Furniture	386	464	78	59	0	-66	85
Paper products	362	396	34	109	-25	19	-69
Printing and publishing	625	672	47	135	3	-3	-87
Leather products	90	97	7	18	-11	-12	22
Rubber products	208	245	38	42	22	22	-48
Basic chemicals	228	169	-59	46	-32	-8	-65
Artificial fibre	80	96	16	20	-2	46	-48
Other chemicals	283	350	67	99	-5	46	-72
Oil refining	37	31	-6	8	-2	-8	-4
Coal products	26	20	-6	4	1	-4	-7
Mineral products	603	615	13	165	12	-44	-120
Iron and steel materials	119	95	-23	13	6	-11	-32
Iron and steel products	445	473	28	73	44	1	-89
Non-ferrous metals	207	175	-33	61	5	-9	-89
Metal products	1 153	1 117	-36	253	45	20	-354
Machinery	1 524	1 417	-107	265	189	50	-611
Electrical machinery	1 416	1 487	71	467	206	93	-695
Transport equipment	1 415	1 493	78	245	157	-12	-312
Precision instruments	315	342	28	134	49	19	-174
Other manufacturing	720	778	58	223	-8	103	-260
Building construction	3 043	3 260	217	848	1	25	-658
Other construction	2 276	2 792	517	939	0	0	-422
Electric power supply	160	158	-2	48	1	24	-74
Gas supply	43	49	5	15	0	6	-16
Water supply	236	360	125	107	0	64	-46
Trade	10 621	10 483	-138	2 316	181	191	-2 847
Finance and insurance	1 597	1 609	12	376	6	-230	-140
Real estate	197	266	68	72	0	1	-5
Renting	208	124	-84	31	1	-54	-82
Transportation	2 500	2 554	54	716	43	-63	-642
Communications	473	537	64	158	5	44	-143
Public administration	1 770	2 105	334	355	-2	34	-53
Education	1 543	1 828	285	470	1	14	-200
Research	85	103	19	25	5	10	-21
Health services	1 845	2 145	300	655	0	0	-356
Other community services	333	548	214	185	5	73	-49
Other services	5 919	8 022	2 104	2 047	-39	471	-376
Office supplies	0	0	0	0	0	0	0
Packing materials	99	119	19	31	0	28	-40
Other activities	149	107	-41	17	-6	-18	-36
Total	56 047	58 703	2 656	14 850	217	1 355	-13 767

Source: UNIDO input-output data bank.

Figure 3.30. Bilateral trade in merchandise and its employment implications: United Kingdom, 1975, 1980 and 1983
(Millions of current dollars; thousands of man-years^a)



Sources: UNIDO input-output data bank; United Nations Trade Statistics.

^aIndicated in parentheses.

Table 3.12. Net direct employment gains and losses through trade with developing countries: United Kingdom, 1975, 1980 and 1983
(Thousands of man-years)

Branch	Trade in 1975				Trade in 1980				Trade in 1983			
	With all developing countries		With 9 selected developing economies		With all developing countries		With 9 selected developing economies		With all developing countries		With 9 selected developing economies	
	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment
Agriculture	-60	-9	-10	-2	-67	-10	-13	-2	-51	-8	-10	-1
Basic metals	0	0	2	1	2	1	-2	-1	2	1	-1	0
Beverages	3	3	1	1	4	4	1	1	3	3	1	1
Shipbuilding	40	11	5	1	51	14	7	2	-4	-1	-11	-3
Automobiles	62	14	7	2	45	10	8	2	27	6	2	0
Chemicals	29	7	5	1	35	8	6	2	40	10	7	2
Coal and coal products	0	0	0	0	0	0	0	0	0	0	0	0
Electrical machinery	60	9	6	1	47	7	0	0	33	5	-8	-1
Food products	-32	-9	-7	-2	-28	-8	-5	-1	-20	-6	-3	-1
Leather products	-13	-11	-4	-4	-28	-24	-11	-9	-24	-20	-9	-8
Machinery	173	20	33	4	134	15	24	3	101	12	13	1
Meat products	-2	-2	-1	-1	-3	-4	-2	-2	-4	-4	-2	-2
Metal products	18	3	1	0	13	2	0	0	20	3	0	0
Dairy products	0	1	0	0	0	2	0	0	1	3	0	0
Mineral products	4	1	1	0	4	1	1	0	6	2	1	0
Office machinery	13	7	1	1	3	1	-4	-2	5	3	-4	-2
Oil and oil refining	-13	-31	0	0	-7	-17	0	0	-2	-6	0	0
Paper products	10	2	1	0	6	1	0	0	3	1	-2	0
Other												
manufacturing	-15	-15	-8	-8	-32	-31	-17	-17	4	4	-4	-4
Rubber products	5	2	0	0	4	2	-1	0	2	1	-1	-1
Textiles	-57	-7	-34	-4	-87	-11	-45	-6	-64	-8	-38	-5
Tobacco	1	4	0	0	2	4	0	0	2	5	0	0
Utilities	0	0	0	0	0	0	0	0	0	0	0	0
Wood products	-11	-4	-6	-2	-25	-10		-5	-24	-10	-12	-5
Total												
manufactures	288	4	3	0	148	2		-1	109	2	-72	-1

Source: UNIDO input-output data bank.

Table 3.13. Factors determining employment change: United Kingdom, 1975-1979

(Thousands of persons)

Branch	Employment levels		Net change	Employment change caused by changes in:			
	1975	1979		Domestic demand	External demand	Technology	Productivity
Agriculture	666	651	-15	56	-27	134	-179
Coal and coal products	315	284	-32	-21	-15	28	-24
Oil and oil refining	32	42	9	9	18	-14	-4
Utilities	276	285	9	27	-7	24	-34
Basic metals	396	351	-45	69	-66	27	-75
Mineral products	308	294	-14	31	-25	65	-85
Chemicals	406	415	9	54	-14	22	-53
Metal products	651	614	-37	86	-38	-56	-28
Machinery	903	876	-27	88	-108	5	-12
Office machinery	205	196	-9	29	-56	33	-15
Electrical machinery	698	666	-32	86	-142	94	-70
Automobiles	417	446	29	187	-124	-76	42
Shipbuilding	430	379	-51	-43	32	-29	-11
Meat products	76	83	7	34	-9	15	-34
Dairy products	53	24	-29	7	2	-1	-38
Food products	335	353	18	9	-2	13	-2
Beverages	104	94	-10	0	-7	27	-30
Tobacco	47	40	-6	-4	2	3	-7
Textiles	834	767	-67	-5	-61	40	-41
Leather products	125	115	-10	4	-33	20	-1
Wood products	277	250	-26	71	-40	-18	-40
Paper products	552	528	-24	93	-48	29	-97
Rubber products	228	223	-5	46	-18	40	-73
Other manufacturing	82	101	18	21	21	-39	15
Construction	1 763	1 756	-7	-30	33	116	-125
Repair services	0	0	0	0	0	0	0
Trade	3 447	3 441	-6	611	-124	346	-839
Lodging	1 252	876	-375	97	6	4	-482
Inland transport	987	950	-37	107	-35	-70	-39
Maritime and air transport	397	164	-233	14	2	-83	-166
Auxiliary transport services	0	264	264	35	-24	253	0
Communications	448	424	-24	57	-6	10	-85
Credit services	2 703	3 669	967	1 061	238	191	-523
Market services	345	161	-183	15	-5	5	-197
Non-market services	1 506	1 493	-24	-75	-35	-699	786
Government services	3 788	3	84	225	0	0	-141
Total	25 051	25 136	85	3 053	-717	458	-2 709

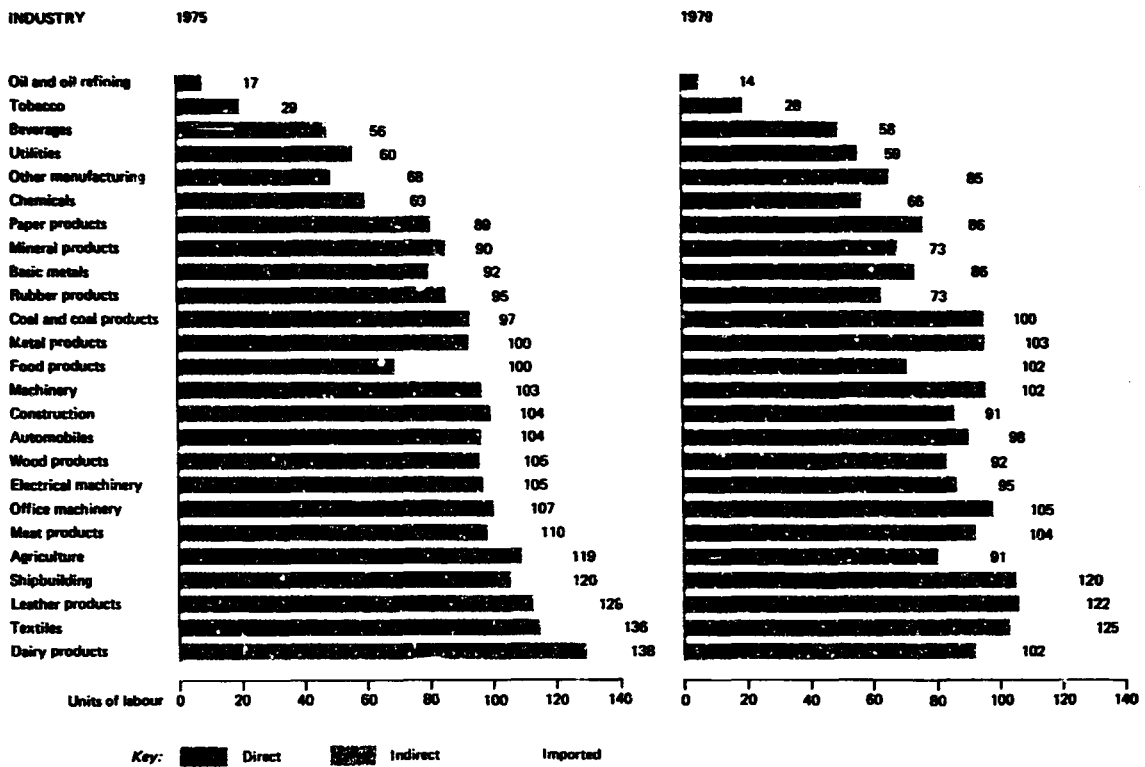
Source: UNIDO input-output data bank.

Table 3.14. Trade sensitive branches and products: United Kingdom, 1975, 1980 and 1983

Branch	Percentage of direct employment lost in trade with the South			Most important exporters and products, 1983			Most dynamic exporters and products, 1980-1983		
	1975	1980	1983	Exporter	Share (percentage)	Products	Exporter	Growth (percentage)	Products
	Leather products	11	24	20	Republic of Korea	22	Footwear, handbags	United Republic of Tanzania	182	Leather of bovine
				Hong Kong	21	Handbags	Brunei	122	Footwear
				Brazil	16	Footwear	Bangladesh	57	Leather of bovine
Wood products	4	10	10	Brazil	23	Lumber, sawn	Turkey	174	Furniture, chairs
				Philippines	22	Lumber, sawn	Indonesia	60	Plywood, sawn lumber
Textiles	7	11	8	Hong Kong	43	Outer garments	Sudan	293	Cotton, yarn
				Republic of Korea	13	Outer garments	Côte d'Ivoire	83	Outer garments
Food products	9	8	6	Brazil	8	Coffee extract	Colombia	121	Coffee extract
				India	8	Oil-seed cake	Tunisia	63	Tropical fruit, dried

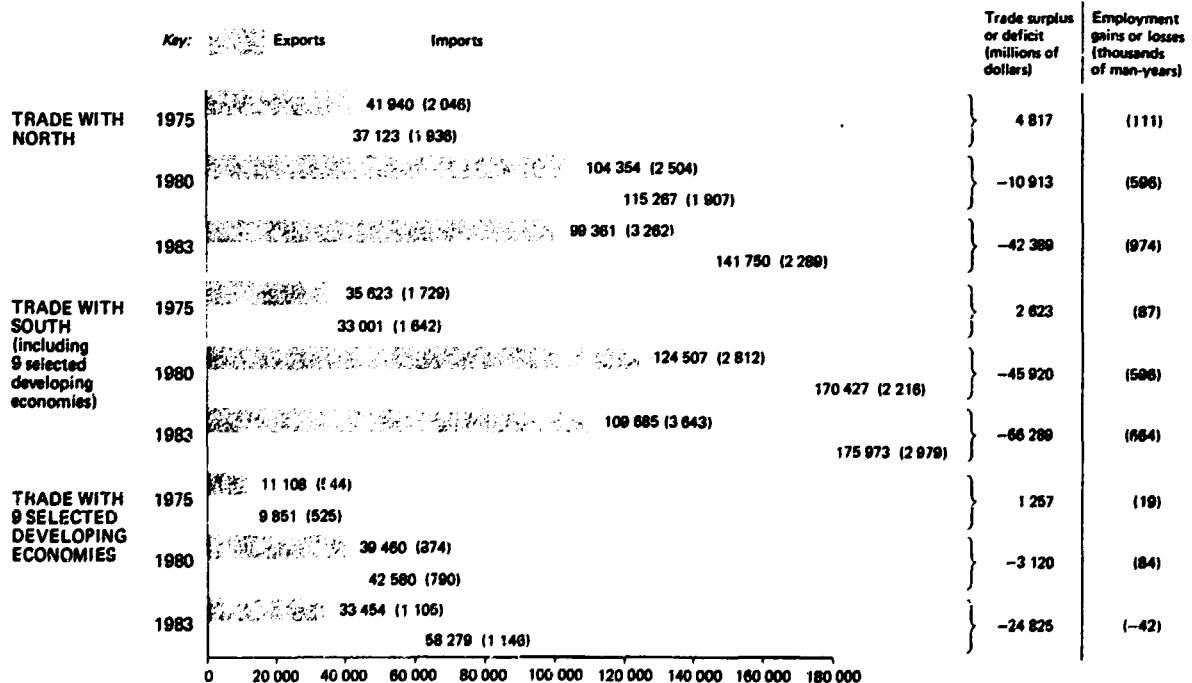
Sources: UNIDO input-output data bank; United Nations Trade Statistics.

Figure 3.31. Units of labour required per million dollars of output: United Kingdom, 1975 and 1979



Source: UNIDO input-output data bank.

Figure 3.32. Bilateral trade in merchandise and its employment implications: United States, 1975, 1980 and 1983 (Millions of current dollars; thousands of man-years^a)



Sources: UNIDO input-output data bank; United Nations Trade Statistics.

^aIndicated in parentheses.

terms (in 1975 constant dollars), exports were \$92 billion and imports were \$72 billion. In 1983, the United States trade deficit on its merchandise account reached approximately \$108 billion in nominal terms. In volume terms, however, the United States actually achieved a \$30 billion surplus. Since volume rather than value of trade determines employment, it is not surprising to find that the United States has consistently had a net gain in employment (see figure 3.32 and table 3.15).

The calculated net gains in employment to the United States economy through merchandise trade were 198,000 jobs in 1973, 1,192,000 in 1980 and 1,638,000 in 1983. Despite the labour-intensive nature of the exports of developing countries, the United States had net gains in employment of 87,000 in 1973, 595,000 in 1980 and 664,000 in 1983 through merchandise trade with developing countries.

Although the United States experienced an almost continuous deficit in trade in manufactures *vis-à-vis* developed countries, it was only in 1983 that United States imports of manufactured products from developing countries exceeded, in value, their exports to those countries. In volume terms, however, United States superiority has never been challenged by developing countries as a group (there was a \$16 billion surplus in favour of the United States in 1983). However, a small number of developing countries that were aggressive enough (or desperate enough to service their external debt)

almost, but not quite, succeeded in pulling ahead in 1983, exporting to the United States \$16.7 billion and importing from the United States \$17 billion worth of manufactured products in 1975 constant prices. The consequent employment impact on the United States economy reflect this trend. The net gains figure *vis-à-vis* our nine selected developing economies changed from an additional 18,000 jobs in 1973 to a loss of 76,000 jobs in 1983.

The largest contributor to United States employment through trade with developing countries remains the machinery and machine tool sector. Through trade with developing countries this sector alone created 368,000 direct and indirect jobs in 1973, 417,000 in 1980 and 764,000 in 1983. The chemical industries and transport equipment follow closely behind. Their combined employment contribution arising from trade with developing countries was 448,000 jobs in 1973, 617,000 in 1980 and 684,000 in 1983. The sectors negatively contributing to employment in each of those years were the wearing apparel industry (job losses of 72,000, 166,000 and 379,000), the textile industry (job losses of 65,000, 17,000 and 146,000) and the leather industry (job losses of 48,000, 141,000 and 268,000) (see figure 3.33 and tables 3.16 and 3.17).

Those industries which contribute positively (or negatively) to economy-wide employment creation through trade retain a varying share of benefits for themselves. The

Table 3.15. Net direct employment gains and losses through trade with developing countries: United States, 1975, 1980 and 1983

(Thousands of man-years)

Branch	Trade in 1975				Trade in 1980				Trade in 1983			
	With all developing countries		With 9 selected developing economies		With all developing countries		With 9 selected developing economies		With all developing countries		With 9 selected developing economies	
	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment	Jobs affected	Percentage of branch's employment
Agriculture	45	1	10	0	123	3	42	1	91	3	32	1
Apparel	-29	-2	-14	-1	-66	-5	-30	-2	-152	-12	-64	-5
Basic metals	4	0	3	0	-14	-1	-4	0	-37	-3	-12	-1
Chemicals	27	2	9	1	94	8	30	3	54	5	17	2
Coal mining	5	2	3	1	11	4	4	2	12	5	5	2
Electrical												
machinery	14	1	-2	0	43	2	11	1	207	10	75	4
Food products	-28	-2	-13	-1	-15	-1	-9	-1	-31	-2	-16	-1
Furniture	2	1	1	0	-5	-1	-5	-1	-7	-2	-8	-2
Precision												
instruments	17	2	6	1	19	3	3	0	17	2	0	0
Leather products	-24	-10	-11	-5	-72	-31	-36	-15	-136	-58	-66	-28
Machinery	153	6	46	2	174	7	52	2	318	13	86	3
Metal mining	-25	-26	-4	-4	-7	-7	-1	-1	-6	-6	-1	-1
Metal products	19	1	4	0	43	3	9	1	41	3	6	0
Mineral products	3	0	1	0	10	1	2	0	7	1	1	0
Oil refining	-13	-7	0	0	-4	-2	0	0	-5	-3	0	0
Oil and gas	-140	-25	1	0	-169	-30	-17	-3	-122	-22	-24	-4
Paper products	2	0	-1	0	1	0	-3	0	-10	-1	-8	-1
Plastic products	1	0	-1	0	6	1	-1	0	-3	0	-4	-1
Printing and publishing	4	0	1	0	8	1	2	0	12	1	2	0
Other												
manufacturing	-17	-4	-7	-2	-43	-10	-20	-5	-49	-12	-21	-5
Stone and clay												
mining	-2	-1	0	0	-5	-4	-1	-1	-3	-3	-1	0
Textiles	-21	-2	-10	-1	-6	-1	-7	-1	-47	-6	-25	-3
Tobacco	1	2	0	0	3	4	0	1	1	1	0	0
Transport												
equipment	96	5	28	1	82	3	18	1	130	7	31	2
Wood products	-76	-11	-36	-5	-57	-8	-28	-4	-61	-9	-24	-4
Total												
manufactures	136	1	4	0	183	1	-14	0	249	1	-32	0

Source: UNIDO input-output data bank.

Table 3.16. Factors determining employment change: United States, 1973-1980

(Thousands of persons)

Branch	Employment levels		Net change	Employment change caused by changes in:			
	1973	1980		Domestic demand	External demand	Technology	Productivity
Agriculture	3 572	3 529	-43	586	-16	-61	-551
Metal mining	87	98	11	19	-1	-3	-4
Coal mining	162	246	85	28	3	44	10
Oil and gas	274	560	286	79	-99	54	251
Stone and clay mining	119	123	4	13	2	7	-18
Construction	4 097	4 346	249	173	1	-96	171
Food products	1 715	1 708	-7	254	-1	10	-270
Tobacco	78	69	-9	4	1	-1	-12
Textiles	1 010	848	-162	182	0	-29	-315
Apparel	1 438	1 264	-175	292	-17	-5	-444
Wood products	759	691	-69	48	8	35	-160
Furniture	507	466	-41	75	-2	-3	-112
Paper products	705	693	-12	90	12	8	-122
Printing and publishing	1 111	1 252	141	214	3	-62	-14
Chemicals	1 038	1 107	70	156	19	75	-181
Oil refining	193	198	5	18	4	-8	-8
Plastic products	630	727	97	109	-4	37	-46
Leather products	284	233	-51	32	-24	-7	-53
Mineral products	716	662	-54	51	2	13	-121
Basic metals	1 259	1 142	-117	157	1	-45	-230
Metal products	1 651	1 613	-38	204	8	33	-283
Machinery	2 089	2 494	405	441	74	19	-129
Electrical machinery	1 970	2 091	121	417	-14	45	-327
Transport equipment	1 929	1 900	-30	321	-3	-39	-308
Precision instruments	557	711	154	159	2	20	-27
Other manufacturing	454	418	-36	93	-4	2	-127
Transportation	2 747	2 962	215	440	58	64	-348
Communications	1 180	1 357	178	363	5	91	-282
Utilities	729	827	98	166	2	-105	35
Trade	16 607	20 310	3 703	3 474	180	294	-246
Finance	4 046	5 160	1 114	1 198	6	101	-191
Services	12 857	17 890	5 033	3 503	51	287	1 193
Government services	13 732	16 241	2 509	3 172	65	174	-903
Total	80 300	93 935	13 635	16 529	324	952	-4 170

Source: UNIDO input-output data bank.

Table 3.17. Trade sensitive branches and products: United States, 1975, 1980 and 1983

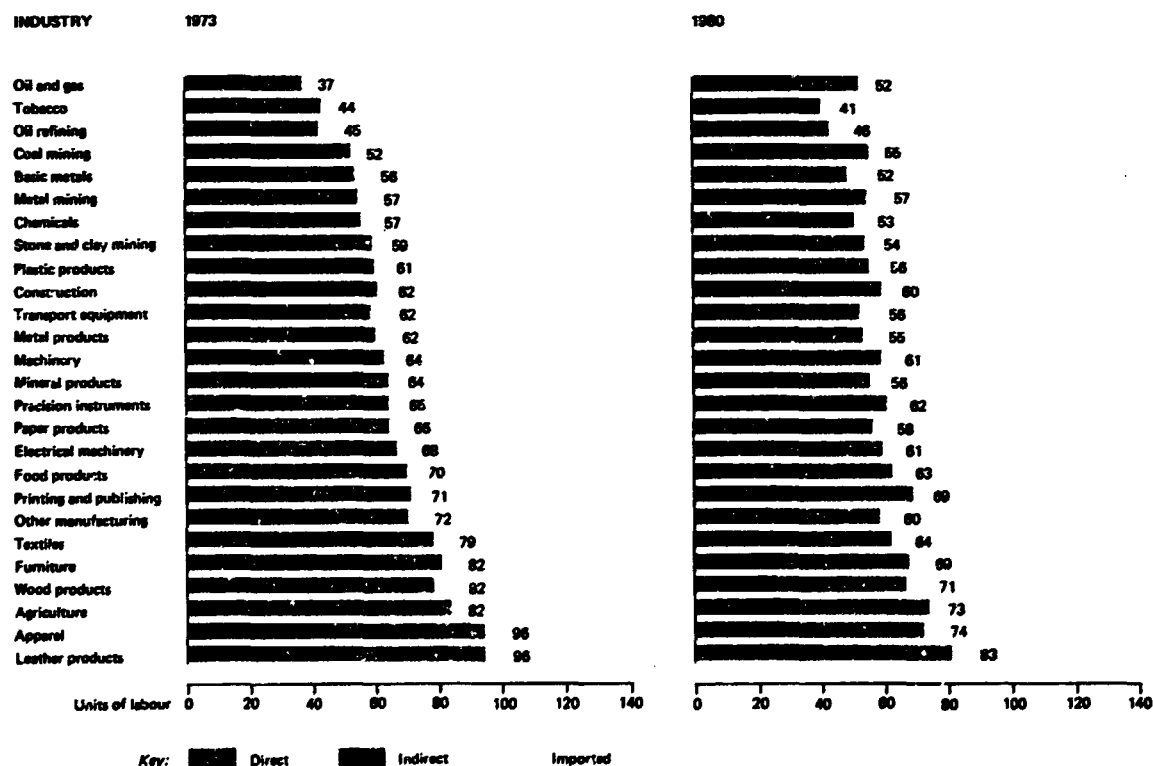
Branch	Percentage of direct employment lost in trade with the South			Most important exporters and products, 1983			Most dynamic exporters and products, 1980-1983				
	1975	1980	1983	Exporter	Share (percentage)	Products	Exporter	Growth (percentage)	Products		
Leather products	10	31	58	Republic of Korea	47	Footwear with leather soles	Sri Lanka	340	Footwear with leather soles		
						Footwear with non-leather soles	Ghana	121	Handbags		
						Handbags	Venezuela	114	Footwear with leather soles		
						Brazil	23	Footwear with leather soles	Nepal	99	Miscellaneous leather
						Hong Kong	8	Handbags			
			Argentina	5	Leather of bovine						
Apparel	2	5	12	Hong Kong	30	Outer garments, unknitted; men's undergarments	Bangladesh	411	Women's undergarments		
							Islamic Republic of Iran	230	Women's undergarments		
							Paraguay	209	Women's undergarments		
							Indonesia	133	Women's undergarments		
			Republic of Korea	25	Outer garments, unknitted; men's undergarments						
			China	13	Outer garments, unknitted; men's undergarments						

Table 3.17 (continued)

Branch	Percentage of direct employment lost in trade with the South			Most important exporters and products, 1963			Most dynamic exporters and products, 1980-1983		
	1975	1980	1983	Exporter	Share (percentage)	Products	Exporter	Growth (percentage)	Products
Wood products	11	6	9	Indonesia	28	Plywood and veneered panels	Turkey	136	Decorative articles of wood
				Mexico	15	Wood bedding and moulding, frames of wood	Venezuela	109	Frames of wood
				Philippines	14	Plywood, veneered panels, veneer sheets, sawn lumber	Indonesia	93	Plywood and veneered wood
				Brazil	13	Lumber, sawn			
Textiles	2	1	6	Hong Kong	30	Knitted garments	Kuwait	230	Carpets
				Republic of Korea	21	Knitted garments	Panama	182	Knitted garments
				China	12	Knitted garments, cotton fabrics, carpets, linen	Venezuela	124	Knitted garments
							Kenya	107	Miscellaneous textile articles

Sources: UNIDO input-output data bank; United Nations Trade Statistics.

Figure 3.33. Units of labour required per million dollars of output: United States, 1973 and 1980



Source: UNIDO input-output data bank.

chemical industry, for example, managed to keep only 21 per cent of total employment created through its exports to developing countries in 1983. The leather industry, on the other hand, suffered more than proportionately because half the employment loss due to declining markets was borne directly by the industry. Unfortunately, most of the industries affected negatively by trade with developing countries have a high direct labour content, making their lot more

uncomfortable when foreign import penetration picks up speed.

As of 1983, net imports from developing countries represented 58 per cent of direct domestic employment in the leather industry, 12 per cent in the wearing apparel industry, 9 per cent in the wood products industry and 6 per cent in the textile industry. The comparable figures in 1973 were, 10 per cent in the leather, 2 per cent in the wearing

apparel, 11 per cent in the wood products and 2 per cent in the textile industries (see table 3.18).

We can look at the trade pattern in greater detail by referring to the developing countries which are the leading exporters. Four sectors—apparel, textiles, wood products, and leather—sustained the largest United States losses in trade with the nine selected developing economies. Table 3.18 lists for each of these four sectors the five largest exporters and the growth rates of their exports between 1980 and 1983. At the same time we also list the five developing economies with the highest growth rates of exports between 1980 and 1983. Since much is being made of the need to

curb the growth rate of exports, it is interesting that there is only one case (Indonesian wood products) where a country that is among the top five exporters is also among those which have the top five growth rates. The high growth rates otherwise are all a result of the minuscule base from which many developing countries start.

Growth rates recorded by the large exporters range quite widely from a low -34.8 per cent for the Republic of Korea (wood products) to 93 per cent for Indonesia (wood products). Growth rates generally do not exceed 20 per cent per annum, only 6 out of the 20 cases being higher.

Table 3.18. Growth of exports to the United States: data on selected developing economies, 1980-1983

Type of product and five largest developing economy exporters in 1983	Value of exports in 1983 (millions of dollars)	Growth rates 1980-1983 (percentage)	Developing economies with top growth ratios (1980-1983)	Growth rates (percentage)	Value of exports in 1983 (millions of dollars)
Apparel					
Hong Kong	1 494	9.1	Bangladesh	411	5.78
Republic of Korea	1 222	15.1	Iran, Islamic		
China	655	49.6	Republic of Paraguay	230	0.01
Philippines	254	10.1	Paraguay	209	0.03
India	245	14.8	Indonesia	133	75.87
			Lebanon	120	0.24
Textiles					
Hong Kong	1 044	12.8	Kuwait	236	0.07
Republic of Korea	724	20.0	Panama	182	4.34
China	433	23.4	Venezuela	124	6.48
India	157	-12.6	Kenya	107	0.19
Brazil	121	6.4	Côte d'Ivoire	87	0.01
Wood products					
Indonesia	179	93.3	Turkey	136	0.10
Mexico	95	10.2	Venezuela	110	0.05
Philippines	90	-4.9	Liberia	103	0.03
Brazil	86	3.9	Indonesia	93	179.20
Republic of Korea	40	-34.8	Samoa	86	0.12
Leather					
Republic of Korea	1 261	23.1	Sri Lanka	340	0.78
Brazil	616	29.7	Ghana	121	0.01
Hong Kong	206	4.9	Venezuela	114	0.36
Argentina	120	11.3	Nepal	99	0.09
Mexico	95	-4.5	Bangladesh	92	0.36

Source: United Nations Trade Statistics.

IV. Conclusions

The world industrial economy is still in a fragile state. Growth was interrupted in 1980-1982, and such recovery as did occur in 1983 and 1984 was confined regionally to Japan and the United States in the North. But even this recovery slowed in 1985, as United States growth faltered. The prospects for 1986 and 1987 are expected, at best, to be only slightly better than in 1985, and much will depend on factors such as the markets for oil, primary commodities and foreign currencies, the unsettled state of which makes it hazardous to predict anything more precise. In any case, the situation is hardly likely to be one to generate more than mild optimism.

The South has borne the brunt of this slow-down in growth, the financial counterpart of which has been high interest rates, reduced if not reversed capital flows, and falling prices of primary products. The partial recovery in 1983-1984 spread its benefits mainly to countries in the South having close ties with the United States. But while Latin America and South-East Asia gained in terms of exports, Tropical Africa, trading mostly with Western Europe, was deprived of this stimulus, and bad weather worsened the problems of some of its least developed countries.

The need for renewed industrial growth is urgent. Even in the famine-stricken countries of Tropical Africa, where food is the main priority, the need to acquire modern transport equipment and infrastructure for internal distribution of food, and to establish the complex system of trade, transport and communication linkages necessary to maintain relations with the rest of the world, highlight the role that industrialization has to play. One method of confronting the challenge, through a strategy linking rural development and industrial growth, is being pursued in both China and India with considerable success.

In the North, the effects of the technological revolution are transforming the industrial structure. Superficially, services are replacing manufacturing as the most dynamic sector, but when examined closely, the industrial support for the services sector is found to be critical. There is now a considerable presence of micro-electronics in transport and communications, and production with robotics is making ever-growing inroads.

The situation is thus one of considerable uncertainty in the short-term, but the demands of the technological revolution require a response from developing countries. The forecasts for 1986 and 1987 given in chapters I and II will, it is hoped, help in the selection of industrial projects, policies and strategies. And while the prospects for bold industrial investment

programmes are hardly encouraging, the need for such boldness could not be greater. Only a commitment to a longer-term vision of a multilateral, expansionary economy on the part of all its various actors will lift the world industrial economy back on to its historical growth path. What options are available to accomplish this objective? We turn to this question from the perspective of the South.

A. Policy issues

World economic growth is determined by the interaction of many forces, some originating in the South and some, perhaps many more, in the North. The perspective of this *Global Report*, as of the previous one, has been that there is more to be gained for the progress of global industrialization by co-operation within, as well as between, the North and the South. Whether we look at the recent course of events in the economy of the North or the immediate prospects for 1986 and 1987, the benefits of a co-ordinated, growth-oriented policy supplemented by freer access to buoyant markets in the North and easier flows of credit to the South are likely to be substantial.

Interdependence and integration of the various regions have been a growing trend, facilitated by movements of credit and capital in the 1970s and by the longer-term forces of improving technology in transport and communications. In the 1980s, these two sets of forces have continued to shape the global economy, but the effect has not been benevolent. Thus the flow of credit and capital has reversed its direction and now goes from the South to the North. At the same time, the revolution in computer technology has gathered increased momentum, especially in the North. By investing large quantities of resources in high-technology sectors, the economies of the North are redefining the basis for international industrial competition in the latter half of the 1980s.

The interconnections of these two forces—financial flows and technological developments—have been touched upon above at various points. But in order to evaluate the South's prospects for industrialization in the near future, it is necessary to spell out the implications of these forces. The problem of the international flow of resources appears to be somewhat more immediate, but amenable to solution through the adoption of a suitable policy. The impulse for such a policy, as things now stand, must however come from the North. The technological revolution is

a longer-term and more fundamental force, and the industrial policy makers of the South must weigh its consequences for their future plans. In view of their crucial importance these two factors are discussed at length below.

B. The international financial system

1. Deficits, debts and distortions

A major factor in transmitting growth impulses through the world economy is the state of the international payments system. As *Global Report 1985* argued, the aggregate of all the trade deficits does not amount to more than 7 per cent of the total value of trade, and has been as low as 4 per cent. The deficit-to-trade ratio goes down if the average growth rate of output is high, but increases if there is a great deal of inter-country disparity in growth rates around the average. The size of this ratio also increases with the rate of inflation. But while the ratio is never very large, slight variations in it have a strong impact on exchange rates, capital flows and interest rates. There is also a built-in tendency in the international financial system to force the deficit countries to deflate and hence reduce their imports. Since deficits in some countries are matched by surpluses in others, an institutional arrangement designed to recycle surpluses to help a deficit country bridge over its short-term problems would also help to forestall the deflationary consequences of the deficit.

The South has seldom been satisfied with the international financial system. The Bretton Woods system guaranteed a regime of fixed exchange rates, but at the same time had a strong deflationary bias. The flow of official capital was meagre and that of private capital virtually non-existent in the years up to 1973. The collapse of the Bretton Woods system and the change-over to a flexible exchange rate system were events to which developing countries were silent witnesses. There was no attempt to remedy the structural deflationary bias of the Bretton Woods system, and the South's demand for stable commodity prices, for capital flows on reasonable interest terms and for short-term relief for balance-of-payments difficulties were ignored. The flexible exchange rate system has not proved to be the unmixed blessing that its proponents hoped it would be. Misalignment of exchange rates, speculative capital flows and volatile interest rates have caused many developing countries to shift more resources to export-oriented industries than is justified on the grounds of balanced development or social equity. Even as the dollar devaluation is being orchestrated by the OECD countries, there has been no consultation with the South nor any proposal to correct the fundamental problems of the international financial system.*

The debt crisis illustrates not so much the excess flow of capital to developing countries as the stringent terms attached to the debt, a large amount of which is short-term. Since 1982 the repayment burden has had a major distorting effect on the economies of the

debtor countries, necessitating cutbacks in imports, reduced expenditure on relief of poverty and distress, delays in improvements to the social infrastructure, and the use of more resources for tradeable goods production.

The problem of indebtedness of the South arises not so much from the growth in the volume of debt as from the deflationary monetary policies adopted by the developed market economies in the wake of the second oil crisis. These policies dealt multiple blows to the world economy, slowed down output growth in the North, and dried up the markets for the exports of the South. They pushed up the nominal as well as real rates of interest on loans, inequitably shifting the inflationary burden on to borrowers, and reduced the net capital flow to the South by increasing the interest component of repayment charges.

When the United States relaxed its fiscal stance in 1982/83, monetary policy remained tight. Thus, simultaneously, United States capital outflows decreased, capital inflows from the rest of the world increased, and interest rates remained high. This also led to the high value of the dollar and the deterioration in the terms of trade for those debtor countries whose currencies were not tied to the dollar. The real burden of debt thus increased due to high interest rates, adverse terms of trade arising from the dollar appreciation and reduced capital flows. Against this should be set the buoyant markets provided by the United States for developing country exports, the effects of which were examined above.

The net effect on debt burden however is still adverse. Net private lending to developing countries fell from \$130 billion in 1981/1982 to \$30 billion in 1983/1984. But as a result of the high interest rates, as much as \$23 billion out of the \$30 billion were for restructuring existing debts. The growth of the external debt of developing countries slowed down from 18 per cent per annum between 1978/1981 to 4.5 per cent in 1984. But the debt problem remains because of the high level of the debt-service ratio, which was 24.1 per cent in 1985 [79].

Debtor countries have been forced to squeeze more exportable surplus from their income. This has been done by fiscal measures which have reduced the subsidies and increased the tax rates that have the greatest impact on the poor. The race to cut real wages and real living standards started with a cut in the social wage—the public services available at subsidized prices. This has been as true in the debtor countries of the South as in the Eastern European debtor economies, Argentina, Brazil, Chile and Mexico being in the same boat as Poland. But it is not only through cuts in the social wage that the monetary malaise affects the world economy.

2. Need for and context of reforms

An industrialization policy that relies heavily on export growth is in many ways a realistic admission that the world economy is increasingly being shaped into a closely knit collection of open economies through the forces of technological change and the consequent internationalization of the division of labour. Such a market-oriented policy is being increasingly urged upon, and progressively adopted

*For recent debates on the issue among some economists, see C. Fred Bergsten, ed., *Global Economic Imbalances*, Special Report No. 4 (Washington, D.C., Institute for International Economics, 1985).

by, many countries. Even under the best assumptions, a market-oriented industrialization policy may conflict with other economic and social objectives, unless supplementary measures are taken to guard against the adverse effects of fiscal policy. For a market-oriented policy to fulfil even its limited economic objectives, the functioning of the international pricing and monetary system should be relatively free from serious flaws. This is hardly the case today. Even some of the developed market economies are discovering that international movements in interest and exchange rates may, if left to market forces, jeopardize other objectives.

It was such a recognition concerning the value of the dollar that led to the special meeting of the group of five major developed market economies in September 1985. If such extraordinary and co-ordinated action by the five Governments had not been taken to nudge the dollar gently on its downward course, the pressures for protectionism in the United States Congress would have been too strong. It was clear to many participants in the United States policy debate about the deficit and the dollar that some intervention was necessary to achieve a measure of stability. The decision for an internationally co-ordinated action on the exchange rate front rather than unilateral legislation to raise trade barriers was, in the event, a sensible one. By internationalizing the action on the exchange value of the dollar, action which is short-term and potentially reversible if necessary, the interdependence of the developed market economies was recognized. Such a short-term policy of market intervention is superior to uncoordinated action on tariffs and quotas that may result in retaliation.

The present need is to carry such co-ordinated market intervention further. Co-ordinated intervention is necessary if trade flows are to continue their relatively unrestricted course. But the interdependence acknowledged by the decision of the group of five is not confined to the North alone, it is world-wide. The co-ordinated intervention needs to extend beyond short-term action on exchange rates to action on deflation, on debts and on stabilization of commodity terms of trade. The South has long complained of the asymmetric and hierarchical nature of the international trade and payments system. But its complaints have fallen on deaf ears. A thoroughgoing structural reform of the international monetary system has been repeatedly postponed and its need questioned. The action of the group of five confirms what the South has long said about the asymmetry of international economic relations: the dollar is different and more pivotal than the other hard currencies.

It also recognizes the connection the South has sought to make between exchange rate movements and their distorting effects on real output growth. Market forces were keeping the dollar high on speculative grounds. But while the dollar stayed high, the United States trade deficit could not be cured by market forces. The consequences of this deadlock were felt by other countries maintaining high interest rates. Only through co-ordinated policy action could a breakthrough be achieved without irreversible damage to the world economy.

The need now is to extend this logic to other issues. The combination of deflation in the North and a

crushing debt burden in the South has caused a loss of real output and employment in developed countries. In debt-ridden developing countries it has diverted resources into exports when their social rate of return could be higher in areas such as health, clean water or adequate housing. Economic hardship and international price distortions have created an international flow of migrant labour. In the nineteenth century such labour moved from one part of the periphery to another, from India to the Caribbean or to Africa, from China to South-East Asia, or from metropolitan Europe to newly settled territories in Canada, the United States and Oceania. Now labour is moving from the periphery to the metropolis, from Mexico to the United States, from the new Commonwealth to the United Kingdom, from North Africa to France, from Turkey to the Federal Republic of Germany. While such movements are spurred by the desire for better incomes and prospects, they create social problems in both the host countries and the home countries.

A result of the intensification of these movements has been to cast doubt on the benefits of openness in the North. There are already severe legal restrictions on labour migration. If international economic relations are seen to have a negative effect on domestic output and employment growth, the pressure will mount for similar obstacles to the movement of goods. There is an imperative need to improve the present system of trade and capital flows, if it is to survive. The context for such an improvement is determined by the nature of long-term changes already obvious in the world economy.

3. Long-term prospects for reform

The international trade and payments system has relied on a concentration of trade surpluses in one country or a small group of countries. The United Kingdom played the role in the nineteenth century and the United States in the post-1945 period. But the profound change in the international financial system is that the United States economy, after playing the role of lender of last resort for 25 years between 1945 and 1971, and continuing to play a pivotal role in the next 12 years as a major surplus country, has become a net debtor country. The OPEC countries, which enjoyed large trade surpluses in the period 1974-1981, are no longer in surplus. We are now in a transitional situation, as in the inter-war period, Japan being the one country with a moderately large surplus. This surplus, amounting to \$56 billion at the end of 1985, has been steady and is likely to last for the foreseeable future. According to a recent forecast [80], Japan should remain in balance-of-payments surplus for the next 10 years, although the surplus is expected to fall to as little as \$1.5 billion by 1995. The nature of Japan's foreign balance is expected to shift from a surplus on the visible account to a surplus on the invisible account totalling \$17 billion by 1995. Japan's performance will thus be very much like that of the United Kingdom in the latter decades of the nineteenth century.

If the surplus does persist, there still remains the problem of how the Japanese economy will recycle its export surplus and create an institutional structure to

sustain this new international role. The net overseas assets of Japan reached \$74 billion at the end of 1984 and were expected to reach \$100 billion by the beginning of 1986. According to the above-mentioned forecast, this figure should reach \$558 billion by 1995, sustained by investment at home as well as the export of capital. Innovations and investment in electronics are expected to proceed vigorously, and domestic demand should also have a stimulating effect, especially in the area of social infrastructure. Further, Japan's high growth rate of exports is expected to decrease as a result of the appreciation of the yen and increased foreign competition from the industrially more developed countries of the South as well as from the North. Although long-term forecasts must always be treated with caution, the course of evolution and change in Japan may have unpredictable consequences for the world economy, depending on whether infrastructure investment generates larger import demand in Japan or merely a drying up of Japanese capital outflows.

Such uncertainty and exclusive reliance on the international economic policy of a single country is forced upon the world economy by the unreformed nature of the payments system. To meet the needs of trade and growth, a system is required for pooling together and recycling the many small trade surpluses which do (and by definition must) exist. The scramble for liquidity has intensified since the United States, after having been a lender, turned into a net borrower. Other borrowers, especially debtor countries in the South, are finding it very costly to revolve and refinance their debt. This is what causes the extreme volatility in the rates of exchange, interest and inflation. Japan's surplus of \$56 billion is small in relation to world needs, and only roughly half the United States deficit. The world economy cannot rely on Japan's taking on the role of lender of last resort.

The task of pooling and recycling surpluses in order to finance deficits is not currently being performed by either public or private bodies. An expansion of special drawing rights or some more far-reaching reform of the policies of the International Monetary Fund would be an immediate help in providing bridging loans to smooth out deficit and surplus flows. Private financial institutions have done it in the past, but cannot any longer because of the increasing risks that uncoordinated government monetary policies impose on them. In the absence of reform, financial cost considerations deflect and distort the industrial growth that is so vital to the future of developing countries.

As growth has failed to absorb the employable labour force, the countries of the North have come to perceive trade, especially imports from industrially more advanced developing countries, as a threat. Each wishes to export more and import less. The International Monetary Fund is dictating such a policy on the debtor countries, with damage to the growth of trade. Since developing countries, in so far as they export manufactures, are seen to be threats to industrial structures, a variety of arbitrary limitations are being placed on their access to markets in the North.

But as was shown in chapter III, this fear of the South's exports is not justified by the facts. What is

much more worrisome for the South is that even the limited success it has had in industrializing may end, owing to certain fundamental developments in technology where the North has the lead.

C. Is the South trapped in the wrong Industrial Revolution?

In their short history of industrialization, the countries of the South have accumulated a wide range of industrial experience. Import substitution was often the first policy adopted, with domestic resource mobilization playing a leading part. The larger economies of the South, some of which had previous industrial experience, were able to contemplate the integrated development of a cluster of basic industries which would equip them with a capital goods sector. For the smaller economies, however, it was the light industries with simple standard technology that offered the best hope. But whereas in the 1950s the import substitution and basic goods development strategy had dominated, in the 1960s and increasingly in the 1970s, the open-economy orientation proved more successful. The persistence of high demand in the North, the South's relatively freer access to the markets of the North in the 1960s, the greater availability and mobility of private capital in the 1970s and the need for moderate industrial growth to meet rising domestic expectations—all these forces converged to make the export growth strategy an attractive one. Some countries of the South were able to penetrate the markets of the North quite successfully in a number of branches, including textiles, wearing apparel, leather products, footwear and wood products. These products were based on standard technology and had reached a late stage in their product cycle, with very little additional technological innovation needed. Because of the greater availability of bank credit and the movement of transnational capital from North to South, other products such as consumer electronics and cars also developed in the South in the second half of the 1970s.

With guaranteed and growing markets and good availability of capital, the South proceeded to base its industrialization on a strategy of taking advantage of its enormous reserves of labour. Thus its period of rapid growth was mainly extensive, based, in other words, on increasing employment rather than increasing productivity. By contrast, MVA growth in the North has recently been due almost entirely to improved labour productivity.

The South was able to expand MVA rapidly because, despite its lower level of labour productivity compared with the North in almost all branches of industry, wages were lower still. Thus, in terms of the unit labour cost, that is, the wage cost per unit of output, the South was ahead of the North.

To look at this in detail, data on value added, employment and wages in 1980 were used. Although more recent data would be preferable, they are not available in sufficient amount. Moreover, 1980 happens to be a good year, since it was the year after which the MVA growth of the South began to slow down.

Figure 4.1 compares the value added per worker in 1980 in the South and the North for each of the

28 branches. The North has a higher productivity in every branch, the South's productivity being, on average, about 45 per cent of that of the North. As figure 4.2 shows, however, this productivity advantage of the North is more than offset by the lower wage rates in the South. Since average wage rates in the South were only about one quarter of those of the North, in terms of unit labour cost, or wage per unit of output, the South performed better than the North. Average unit labour costs in the South were 63 per cent of those of the North (see figure 4.3).

This advantage in costs is unevenly distributed across different branches, but it is interesting to note that the South's advantage was greatest in iron and steel, followed, in descending order, by non-ferrous metals, plastics, leather, paper and industrial chemicals. Thus in capital-intensive, modern, as well as traditional industries, the South could compete with the North. Moreover, this performance was not just an accident of one year. Wage rates in the South were 20 per cent to 30 per cent of those in the North throughout the period 1965-1980, while productivity was about 30 per cent to 45 per cent of the level of the North.

Thus the costs of production were higher in the North than in the South, even allowing for higher productivity. This cost advantage was reflected in profitability figures: the industry of the South yielded a profit margin over sales of 29 per cent, compared with 22 per cent for the North.

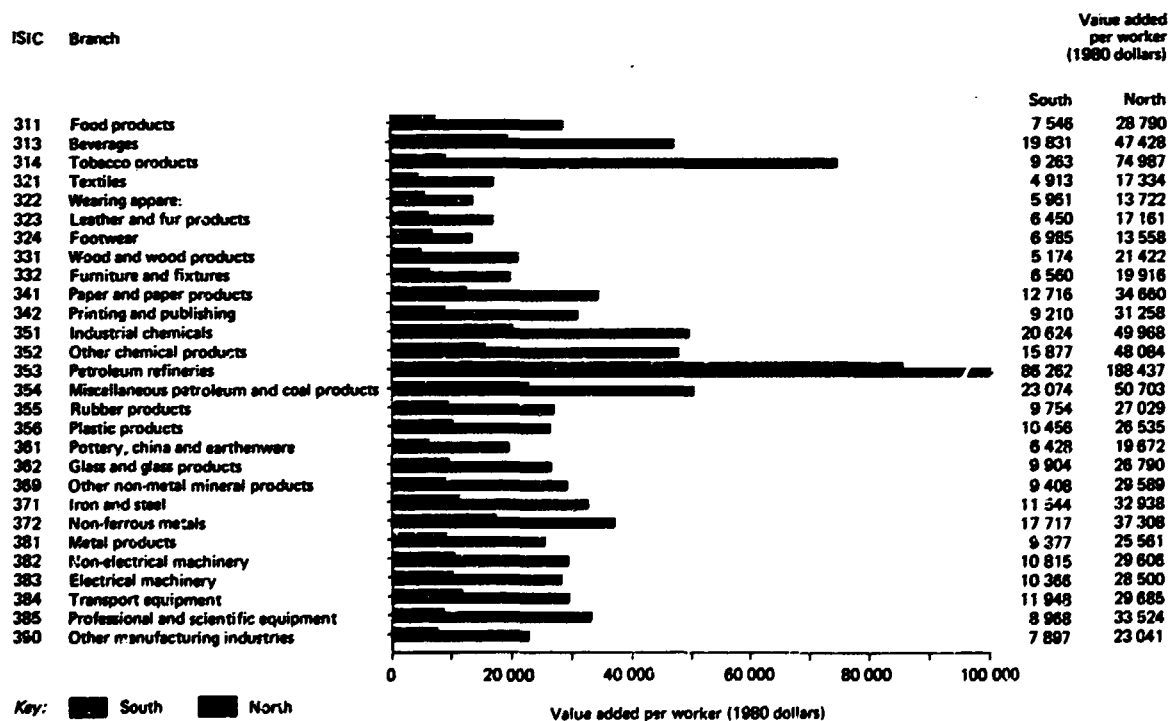
As a consequence of these developments, the North faced a profit squeeze and increasing penetration of its markets. The declining profitability in the North encouraged some transnational capital to migrate to the South. But if the South was effectively exploiting

its only abundant resources, the North did not remain passive. It reacted to the challenge of the South by increasing productivity, even in the traditional industries, at a faster rate, reducing its industrial employment. Two factors further affected the context of the competition, namely the economic slow-down of 1980-1985 and the technological revolution.

The recession of 1981-1983 and the moderate recovery of 1984-1985 posed a fundamental challenge to several of the hypotheses on which the industrialization of the South was based. Thus the effects of a slow-down in the growth of export markets have been made worse by domestic pressures in developed market economies for tariff protection, domestic subsidies, import quotas etc. The new micro-electronics technology is spreading through the industrial structure of economies such as Japan and the United States, and computer-aided design and computer-aided manufacturing are transforming even low-technology industries such as textiles and leather products, where the technology had been standardized for many years. At the same time, in order to finance its transition to a high-technology-oriented industrial structure, the United States is recalling its external assets, and the flow of capital is upstream from the South to the North, and within the North from Western Europe and Japan to the United States. The easy flow of bank capital, which until 1979 had helped the South, has dried up and is unlikely, despite the Baker proposals, to flow again in the same amounts.

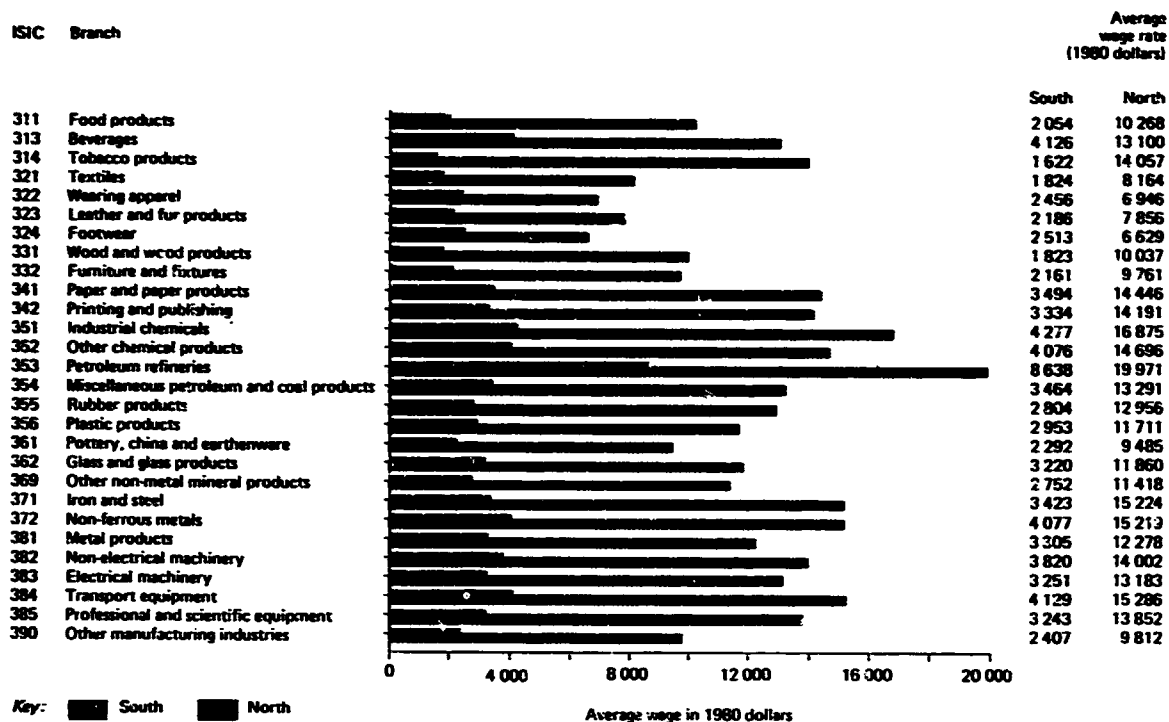
These various factors herald a changed economic environment for the South in the late 1980s. The debt-deflation quandary has already compelled many economies of the South to squeeze wages further and make sharp cuts in public expenditure and social

Figure 4.1. Average labour productivity in the North and South, 1980



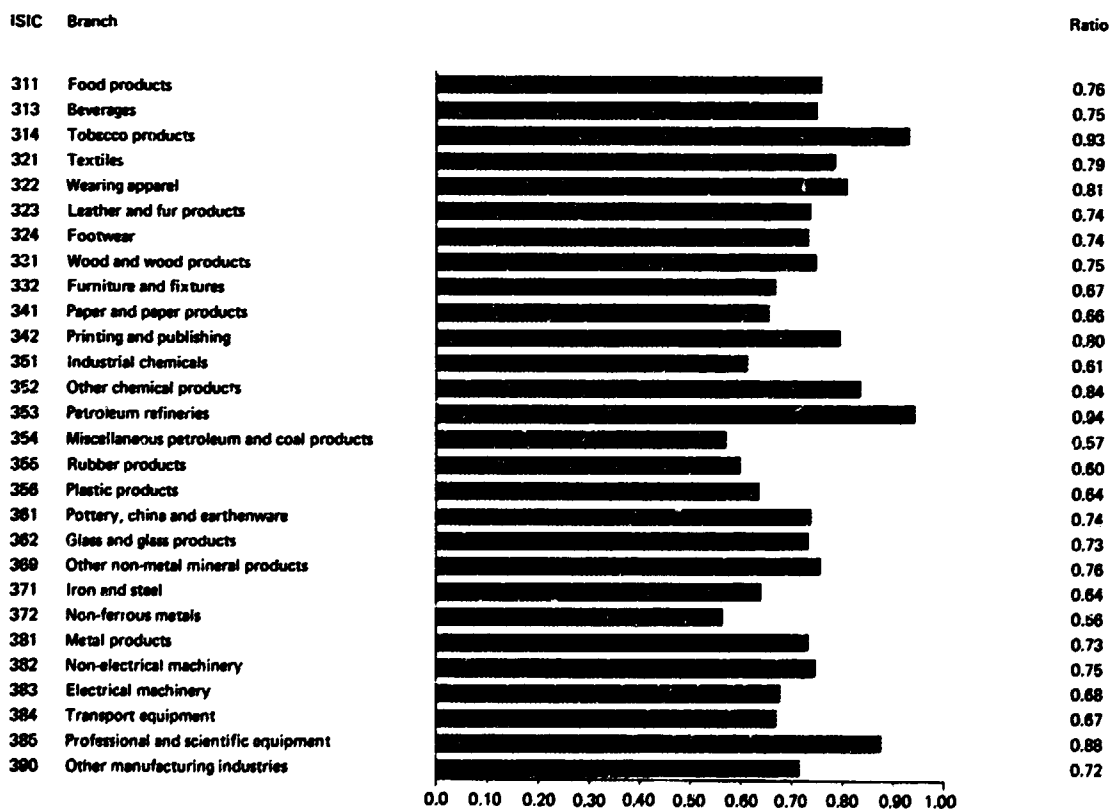
Source: United Nations Industrial Statistics.

Figure 4.2. Average wage per employee in the North and South, 1980



Source: United Nations Industrial Statistics.

Figure 4.3. Ratio of unit labour costs (South divided by North), 1980



Source: United Nations Industrial Statistics.

welfare. The success of the export-oriented strategy is further threatened by the prospect of drastic measures, including restrictions on certain imports, to balance bilateral trade accounts.

What then are the prospects for the industrialization of the South? The old strategy relied on cheap labour, steadily growing export markets and a stable product cycle. Under such conditions, low wages were sufficient to stimulate industrial expansion. Countries in which wages were likely to rise could expect to move up the scale to the next level of technological sophistication, shedding low-technology sectors to countries where labour was cheaper.

Given the declining costs of information, communications and transport, the markets of the North and the South will be brought closer together. But new technological developments relating to the production process will be crucial for determining the location of transnational capital. If the new technology generates new products in the early phase of the product cycle or restarts the product cycle of the old ones, for instance, by computer-aided design in textiles and leather, the location of high productivity goods may revert to the North.* Only in those industries which are untouched by high technology, or where high technology has become routinized, can the South expect to attract capital.

Thus a continuation of high profitability in the South depends on the availability of imported technology to absorb the skilled and semi-skilled industrial labour force. But there must also be the facilitating conditions of buoyant export demand and access to cheap credit. Without determined efforts to relaunch the North on its historical growth path and to reform the international system of trade, exchange and payments, there is only a fragile hope for success in pursuing the old strategy. It will require even more severe wage cuts and further deflation in the South, and the tragedy is that this is the best that the more industrially successful of the countries of the South can hope for. For the rest, the avenues are not so broad.

D. Options for the South

It may be necessary, therefore, to search for new strategies that might offer a way out of the impasse. The industrializing countries of the South may soon find that protectionism has closed the export markets of the North, and when higher growth levels resume the industries of the North will have restructured so as to increase their competitiveness. The South has to explore the opportunities offered by its own internal markets, both within each country and within the South as a whole.

In the case of China, and to some extent India as well, the role of agricultural development as a precondition for industrial development has become obvious. These countries have potentially large internal markets, but markets everywhere in the South could be expanded if rural development were integrated with industrial growth.

*Similar concerns have been expressed in Carolina Perez, "Micro-electronics, long waves and world structural change: new perspectives for developing countries", *World Development*, vol. 13, No. 3 (March 1985).

Such a strategy is not totally novel. Agricultural growth provided the preconditions for the industrial revolution in eighteenth-century England, and the example of China confirms its relevance. A domestic-market-oriented strategy would combine rural development based on a prosperous agriculture with multiple opportunities for local entrepreneurs to provide domestically produced industrial goods and services. It would require far-reaching changes in attitudes and institutions in the South, and reforms in the system of taxation and the distribution of incomes may be needed to ensure its success.

A strategy which relies on internal markets cannot, however, be isolated from technological realities. As *Global Report 1985* demonstrated, some countries of the South are fully capable of producing some of the capital goods needed by other countries of the South. Not every country can have a fully integrated industrial structure, and a pooling of resources and capabilities through trade will be essential. This also means a pooling of educated scientific and technical personnel to lead the South into the new Industrial Revolution and to adapt its advances to the special needs of developing countries. Policies will have to be devised to lure back some of the South's best brains now working in the North. A strategy to encourage innovation may have to be launched by the South, and negotiations may be needed with the present leaders in technology to promote self-sustaining development. In this way the long-term future of industrialization in the South may be ensured.

The South as a whole is facing an uncertain future in both the short and the longer term, with varying prospects among its different regions. Our review of the slow-growth syndrome in the North suggests that the era of export-led industrial growth in some parts of the South may be passing. If such is the case, then new sources of industrial growth must be sought, a task which China has already begun, with India perhaps very soon to follow. South-South co-operation, as advocated in *Global Report 1985*, may provide such a source, together with internal stimuli arising from the linkage of progress in agriculture with industrial growth.

In the short term, a revival of industrial growth in the South depends very much on whether the major industrialized countries introduce co-ordinated and effective reflation policies, thus making it possible to provide markets for goods, particularly industrial goods, produced by the South.

Over the longer term, the uncertainty facing the industry of the South stems basically from the ability of industry in the North to adjust and restructure itself in response to changing comparative advantage. The advantage of inexpensive labour, hitherto enjoyed by the South and providing the basis for its industrial growth, could even be wiped out by new forms of protectionism in the North, by technological breakthroughs or by a combination of both.

Finally, while there are various alternatives to the strategy pursued by developing countries in the 1960s and 1970s, we must await the events of the next few years to determine which option holds out the best hope for the future.

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Statistical Annex

World Industry Development Indicators

Technical notes

1. Sources for the following country tables are:

- (a) The UNIDO data base of industrial statistics;
- (b) National Accounts Statistics from the United Nations Office for Development Research and Policy Analysis (all entries followed by "/na") supplemented by other sources (listed below under item 5);
- (c) Population figures from United Nations Demographic Statistics and the United Nations Monthly Bulletin of Statistics. The population figures used in the GDP per capita forecast (1985-1987) are based on "World Population Prospects as Assessed in 1982" (United Nations, Department of International Economic and Social Affairs, 1985), medium variant;
- (d) Estimates and forecasts of GDP and MVA (manufacturing value added from National Accounts Statistics and for 28 industrial branches) by UNIDO, Global Studies Branch.

2. All values are in millions of dollars at current prices, except where otherwise indicated.

3. Figures followed by "/c" are in 1975 constant prices.

4. For centrally planned economies the net material product (NMP) replaces the GDP.

5. The graphs of GDP and MVA growth rates are based on data supplied by the Office for Development Research and Policy Analysis in the Department of International Economic and Social Affairs. For countries and periods for which no such data were available, the growth rates were taken from one of the following sources:

- (a) National statistical institute of the specific country;
- (b) United Nations regional economic commission for the specific country;
- (c) *International Financial Statistics* (International Monetary Fund);
- (d) *National Accounts, Main Aggregates* (Organisation for Economic Co-operation and Development, Department of Economics and Statistics);
- (e) *World Outlook and Quarterly Economic Review* (The Economist Intelligence Unit);
- (f) *World Bank Atlas*;
- (g) *Centrally Planned Economies, Economic Overview* (The Conference Board, Inc.);
- (h) Various economic journals and weekly magazines;
- (i) Abecor European Bank Service;
- (j) "Report on world economic prospects 1984-1986" (United Nations, Department of International Economic and Social Affairs, Projections and Perspectives Studies Branch, project LINK).

The growth rates from 1985 to 1987 for all countries (before 1985 also for those countries without reported data) were projected using the long-term trend in GDP, the cyclical deviations from that trend and the historically observed dependence of the specific country on a country or group (e.g. the United States, Japan or the European Economic Community).

The growth rates of MVA for the period 1985 to 1987 were derived from the GDP growth rates. Four different types of linear regressions relating the two quantities were used for this purpose.

6. The diagram of industrial structural change is based on the value added in 1980 constant prices. For each branch an index number for the periods 1975, 1980, 1985 and 1987 is calculated from the base year 1970. The index number determines the distance from the origin of the star-diagram. For each year the index numbers are connected by a line which reflects the typical "shape" of expansion for the specific country. Since the size of expansion (absolute values of the index numbers) is different in each country, a different scale is used in each diagram. The largest index number of all branches is therefore given below the right end of the horizontal axis. The two numbers in the box on the upper right-hand side of the plot are: g , the average annual growth rate for the period 1970 to 1987; and θ , the index of structural change (defined below) for the same period.

7. The figures for value added taken from national accounts and from industrial statistics differ mainly for the following two reasons:

- (a) The industrial census data do not include the activities of firms or enterprises with less than a certain number of employees. Ideally this number equals five, but varies across countries and branches;
- (b) The industrial census data include the receipts for and exclude the costs of non-industrial activities.

There is no size limit for value added data of national accounts, and non-industrial activities are not considered.

For further information refer to *International Recommendations for Industrial Statistics*, Statistical Papers, Series M, No. 48, Rev.1 (United Nations publication, Sales No. E.83.XVII.8).

8. The figures under the item "profitability" are defined as follows:

Intermediate input = $100(\text{gross output} - \text{value added}) / \text{gross output}$

Wages and salaries = $100(\text{wages and salaries}) / \text{gross output}$

Operating surplus = $100(\text{value added} - \text{wages and salaries}) / \text{gross output}$

9. The items "profitability" and "productivity" are calculated for total manufacturing value added. A branch was only included if all required variables (gross output, value added, wages and salaries and employment) were reported.

10. For the calculation of the structural indices and the value of θ in the diagram of industrial structural change, the value added in constant 1980 prices has been used.

The measure for structural change is defined as:

$$\cos \theta = \frac{\sum_i s_i(t) \cdot s_i(t-1)}{\sqrt{(\sum_i s_i(t)^2) \cdot (\sum_i s_i(t-1)^2)}}$$

where $s_i(t)$ is the share of the i branch of value added in total value added in the year t .

The value θ can be interpreted as the angle between the two vectors $s_i(t-1)$ and $s_i(t)$ measured in degrees.

The theoretical maximum value of θ is 90 degrees.

11. The item "growth rate/structural change" is measured as a percentage of real value added growth per degree of structural change between the periods $t-1$ and t .

12. The degree of specialization is defined as follows:

$$h = 100 \left(1 + \frac{\sum_i s_i \cdot \ln s_i}{h_{\max}} \right)$$

where s_i is defined as above and $h_{\max} = \ln$ (number of branches); \ln is the natural logarithm.

If the shares of all branches are equal, the degree of specialization equals 0. If only one branch exists, the value is 100.

13. The value added of two or more individual industrial branches is in some cases aggregated into one value and reported as a single figure. The letters "a" to "z" are used to identify branches which belong to such a combination.

Summary of indicators

- /na value originating from national accounts statistics
- /c in 1975 constant prices
- ... no value available
- value is less than a half of the unit
- n.a. not available

Regional classification of countries and territories:

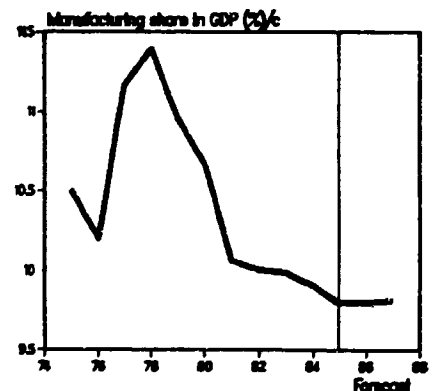
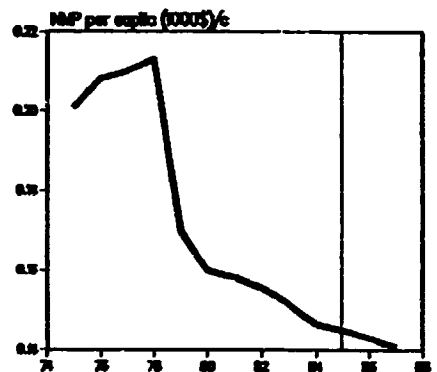
Country or territory	UNITAD region		page
AFGHANISTAN	Indian Subcontinent	(IN)	155
ALBANIA	Centrally Planned Europe	(EE)	156
ALGERIA	North Africa and West Asia	(NE)	157
ANGOLA	Tropical Africa (South Sahara)	(TA)	158
ANTIGUA AND BARBUDA	Latin America	(LA)	159
ARGENTINA	Latin America	(LA)	160
AUSTRALIA	Other Developed	(OD)	161
AUSTRIA	Western Europe (North)	(WE)	162
BAHRAIN	North Africa and West Asia	(NE)	163
BANGLADESH	Indian Subcontinent	(IN)	164
BARBADOS	Latin America	(LA)	165
BELGIUM	Western Europe (North)	(WE)	166
BELIZE	Latin America	(LA)	167
BENIN	Tropical Africa (South Sahara)	(TA)	168
BERMUDA	North America	(NA)	169
BHUTAN	Indian Subcontinent	(IN)	170
BOLIVIA	Latin America	(LA)	171
BOTSWANA	Tropical Africa (South Sahara)	(TA)	172
BRAZIL	Latin America	(LA)	173
BRUNEI DARUSSALAM	South-East Asia	(AS)	174
BULGARIA	Centrally Planned Europe	(EE)	175
BURKINA FASO	Tropical Africa (South Sahara)	(TA)	176
BURMA	Indian Subcontinent	(IN)	177
BURUNDI	Tropical Africa (South Sahara)	(TA)	178
BYELORUSSIAN SOV. SOC. REPUBLIC	Centrally Planned Europe	(EE)	n.a.
CAMEROON	Tropical Africa (South Sahara)	(TA)	179
CANADA	North America	(NA)	180
CAPE VERDE	Tropical Africa (South Sahara)	(TA)	181
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CHINA (TAIWAN PROVINCE)	South-East Asia	(AS)	186
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COSTA RICA	Latin America	(LA)	190
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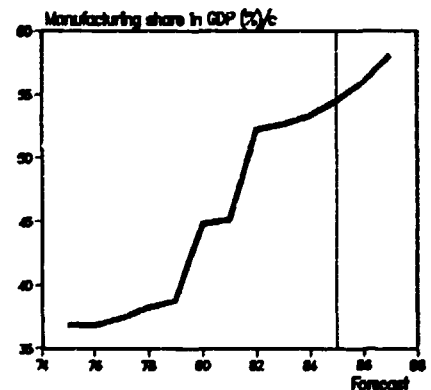
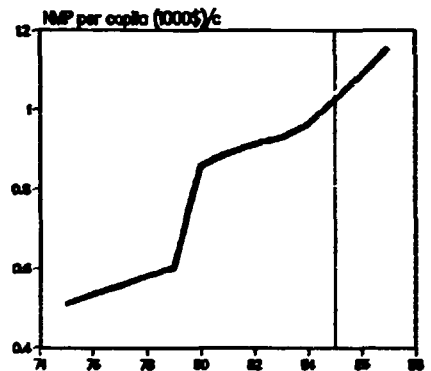
	1975	1980	1983
GDP: /na (in million dollars)	2367 /c	2552 /c	2613 /c
Per capita (in dollars)	201 /c	160 /c	152 /c
Manufacturing share /na (%)	10.5 /c	10.7 /c	10.0 /c
MANUFACTURING:			
Value added /na (in million dollars)	249 /c	272 /c	261 /c
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)	164	238	207
Employment (in thousands)	33	39	26
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
33 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
389 Other manufacturing industries

For source, footnotes and comments see "Technical notes" above.

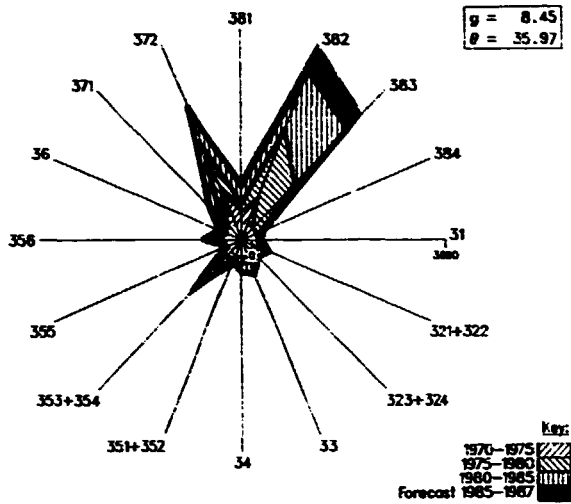


	1975	1980	1983
NMP: /na (in million dollars)	...	2293 /c	2639 /c
Per capita (in dollars)	0 /c	859 /c	929 /c
Manufacturing share /na (%)	31.9 /c	44.9 /c	52.7 /c
MANUFACTURING:			
Value added /na (in million dollars)	452 /c	1025 /c	1390 /c
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
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390 Other manufacturing industries

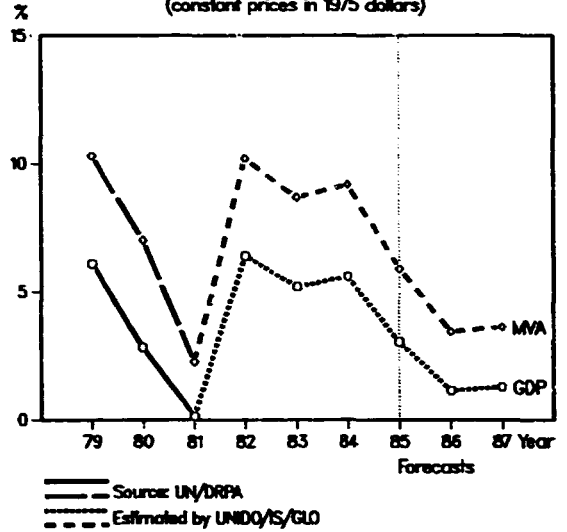
For sources, footnotes and comments see "Technical notes" above.



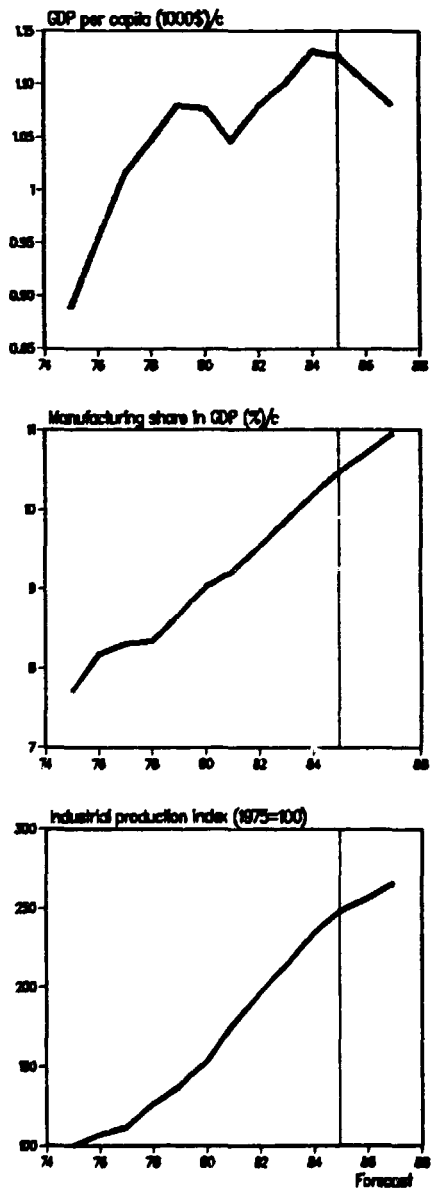
Industrial structural change
(Index of value added: 1970=100)



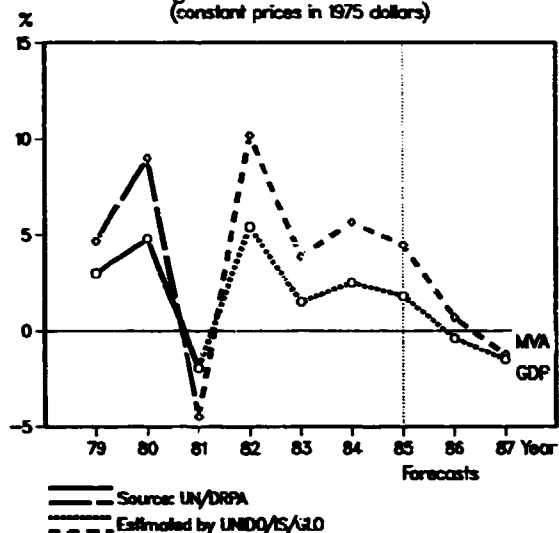
Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



	1975	1980	1983
GDP: /na (in million dollars)	14219 /c	20107 /c	22540 /c
Per capita (in dollars)	888 /c	1077 /c	1100 /c
Manufacturing share /na (%)	7.7 /c	9.0 /c	9.9 /c
MANUFACTURING:			
Value added /na (in million dollars)	1095 /c	1814 /c	2222 /c
Value added (in million dollars)	1465	4476	...
Industrial production index	100	154	214
Gross output (in million dollars)	4278	...	...
Employment (in thousands)	191	330	449
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	66	...	...
Wages and salaries (%)	18	...	...
Operating surplus (%)	16	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	22406	...	...
Value added / worker	7672	...	...
Average wage	4114	...	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	4.12	11.59	0.81
in percentage of θ in 1970-1975	70	198	14
Growth rate / structural change	1.63	1.00	10.70
Degree of specialization	19.8	17.2	18.1
-VALUE ADDED: (in million dollars)			
311 Food products	303	764	...
313 Beverages	63	158	...
314 Tobacco products	81	205	...
321 Textiles	125	382	...
322 Wearing apparel	101	307	...
323 Leather and fur products	36	87	...
324 Footwear	41	100	...
331 Wood and wood products	51	109	...
332 Furniture and fixtures	24	51	...
341 Paper and paper products	61	127	...
342 Printing and publishing	8	16	...
351 Industrial chemicals	5	9	...
352 Other chemical products	24	42	...
353 Petroleum refineries	112	201	...
354 Misc. petroleum and coal products	4	7	...
355 Rubber products	4	7	...
356 Plastic products	8	15	...
361 Pottery, china and earthenware	5	22	...
362 Glass and glass products	7	35	...
369 Other non-metal mineral products	87	438	...
371 Iron and steel	95	440	...
372 Non-ferrous metals	7	31	...
381 Metal products	72	328	...
382 Non-electrical machinery	33	148	...
383 Electrical machinery	33	148	...
384 Transport equipment	56	253	...
385 Professional and scientific equipment	3	14	...
390 Other manufacturing industries	20	33	...

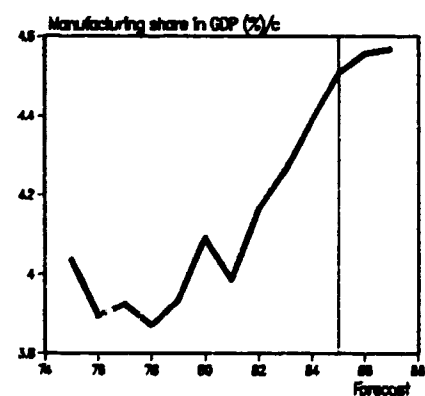
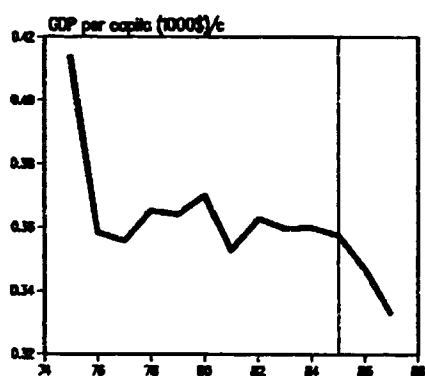


For source, footnotes and comments see "Technical notes" above.

Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

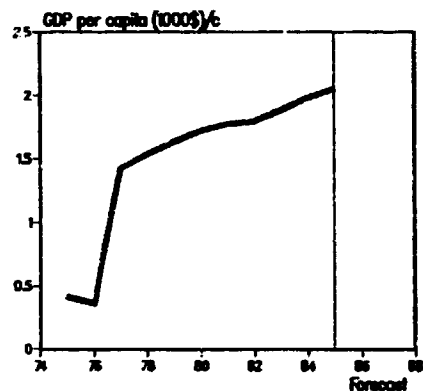
	1975	1980	1983
GDP: /na (in million dollars)	2701 /c	2858 /c	2998 /c
Per capita (in dollars)	414 /c	370 /c	359 /c
Manufacturing share /na (%)	4.0 /c	4.1 /c	4.3 /c
MANUFACTURING:			
Value added /na (in million dollars)	109 /c	117 /c	128 /c
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
389 Other manufacturing industries

For source, footnotes and comments see "Technical notes" above.

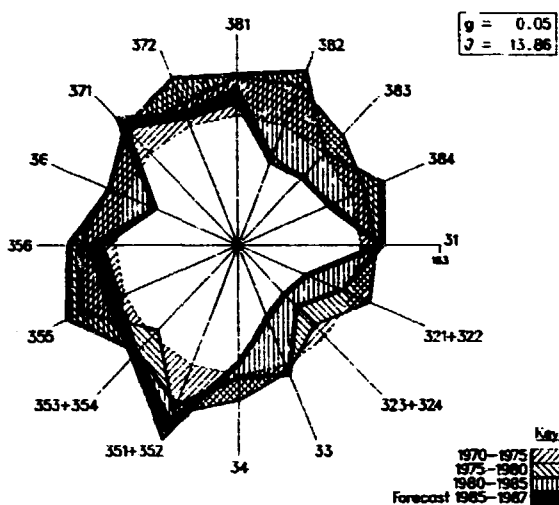


	1975	1980	1983
GDP: /na (in million dollars)	...	129 /c	147 /c
Per capita (in dollars)	...	1725 /c	1886 /c
Manufacturing share /na (%)
MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change B (in degrees)
in percentage of B in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixt. as
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
390 Other manufacturing industries

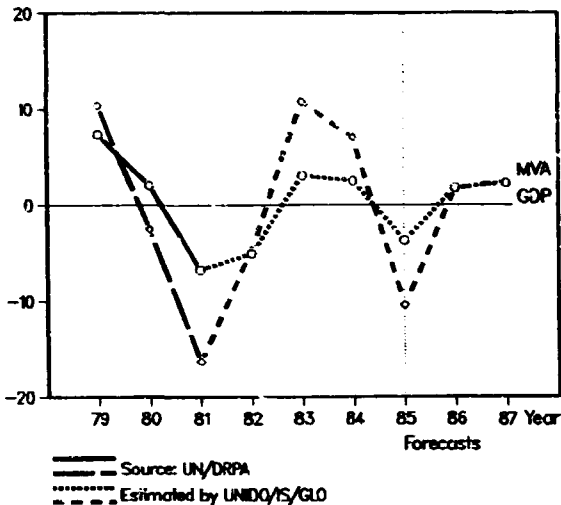
For source, footnotes and comments see "Technical notes" above.



Industrial structural change
(Index of value added: 1970=100)



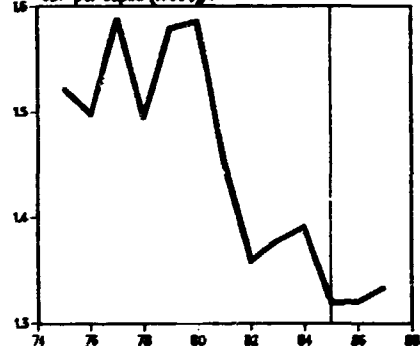
Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



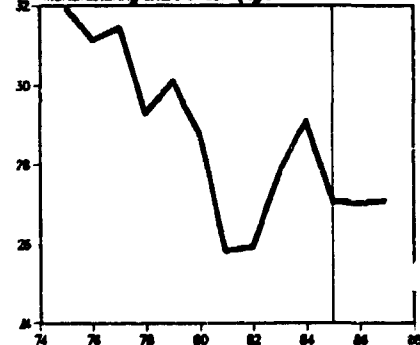
	1975	1980	1983
GDP: /na (in million dollars)	39664 /c	44784 /c	40845 /c
Per capita (in dollars)	1523 /c	1586 /c	1379 /c
Manufacturing share /na (%)	31.9 /c	26.8 /c	27.9 /c
MANUFACTURING:			
Value added /na (in million dollars)	12667 /c	12886 /c	11380 /c
Value added (in million dollars)	10936	33435	...
Industrial production index	100	99	88
Gross output (in million dollars)	...	...	...
Employment (in thousands)	1763	1306	1011
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	...	...	...
Wages and salaries (%)	...	...	...
Operating surplus (%)	...	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	...	...	...
Value added / worker	...	...	...
Average wage	...	...	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	4.07	3.82	4.15
in percentage of θ in 1970-1975	129	121	132
Growth rate / structural change	-0.51	-1.00	1.83
Degree of specialization	11.8	12.9	13.3
-VALUE ADDED: (in million dollars)			
311 Food products	1983	6252	...
313 Beverages	426	1342	...
314 Tobacco products	52	163	...
321 Textiles	1036	2547	...
322 Wearing apparel	266	655	...
323 Leather and fur products	71	175	...
324 Footwear	81	200	...
331 Wood and wood products	140	388	...
332 Furniture and fixtures	39	247	...
341 Paper and paper products	347	921	...
342 Printing and publishing	720	851	...
351 Industrial chemicals	363	1210	...
352 Other chemical products	503	1675	...
353 Petroleum refineries	368	1226	...
354 Misc. petroleum and coal products	25	85	...
355 Rubber products	209	697	...
356 Plastic products	117	391	...
361 Pottery, china and earthenware	55	169	...
362 Glass and glass products	124	380	...
369 Other non-metal mineral products	455	1390	...
371 Iron and steel	487	1595	...
372 Non-ferrous metals	26	411	...
381 Metal products	75	2402	...
382 Non-electrical machinery	51	2104	...
383 Electrical machinery	308	1488	...
384 Transport equipment	1553	4034	...
385 Professional and scientific equipment	72	245	...
390 Other manufacturing industries	61	201	...

For source, footnotes and comments see "Technical" above.

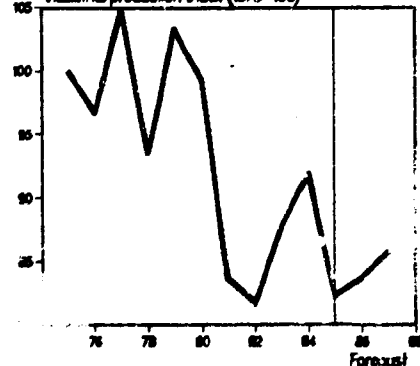
GDP per capita (1000\$/c)



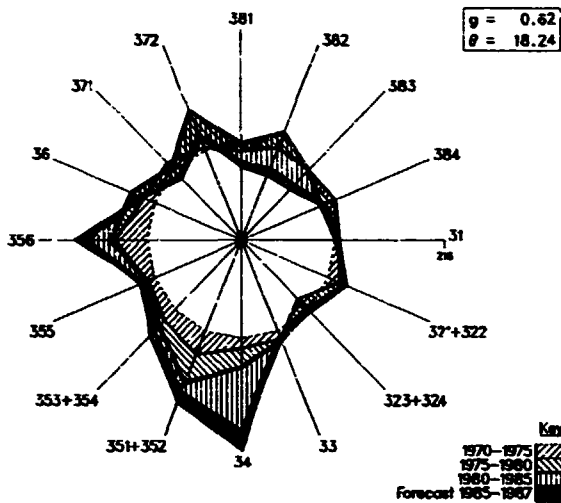
Manufacturing share in GDP (%/c)



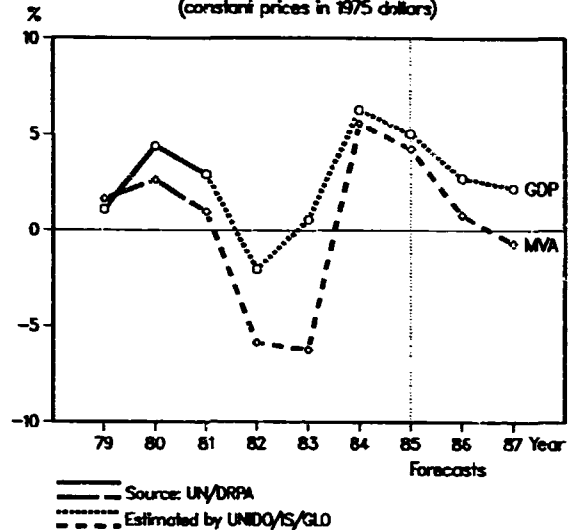
Industrial production index (1975=100)



Industrial structural change
(Index of value added: 1970=100)

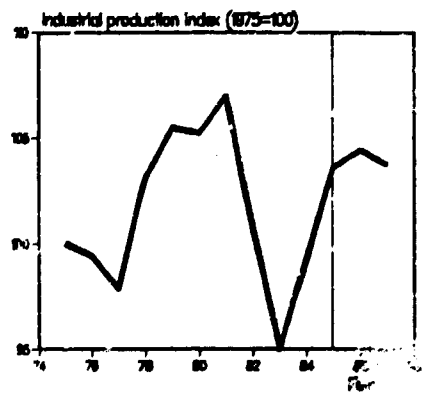
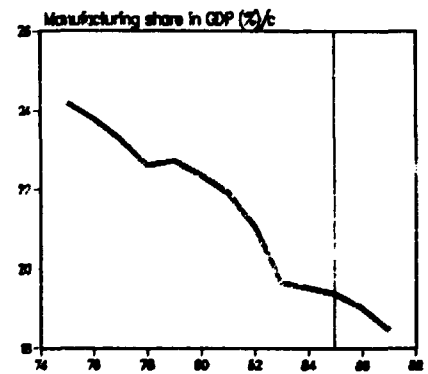
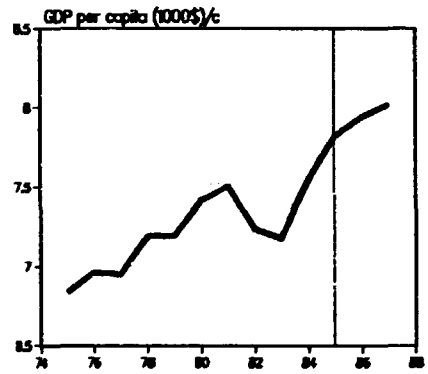


Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

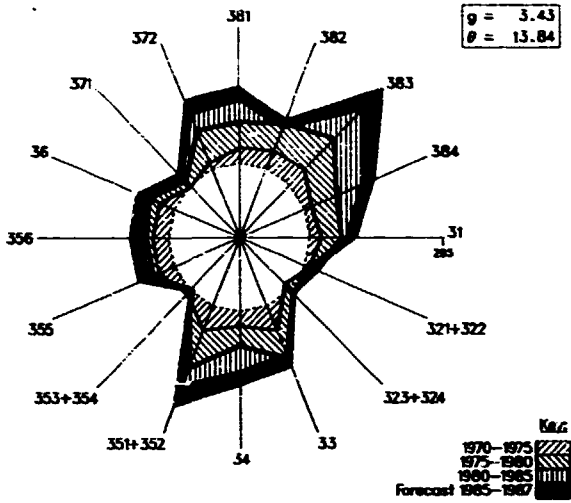


	1975	1980	1983
GDP: /na (in million dollars)	94983 /c	108937 /c	110382 /c
Per capita (in dollars)	6838 /c	7416 /c	7177 /c
Manufacturing share /na (%)	24.2 /c	22.4 /c	19.7 /c
MANUFACTURING:			
Value added /na (in million dollars)	22979 /c	24352 /c	21694 /c
Value added (in million dollars)	19937	29173	28098
Industrial production index	100	105	95
Gross output (in million dollars)	46801	75474	73607
Employment (in thousands)	1231	1140	1043
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	57	61	62
Wages and salaries (%)	24	20	21
Operating surplus (%)	19	18	17
-PRODUCTIVITY: (in dollars)			
Gross output / worker	38019	66263	70573
Value added / worker	16196	25613	26940
Average wage	9071	13356	15058
-STRUCTURAL INDICES:			
Structural change B (in degrees)	2.57	2.42	3.71
in percentage of B in 1970-1975	67	63	97
Growth rate / structural change	0.21	-0.10	-1.50
Degree of specialization	12.8	11.3	12.0
-VALUE ADDED: (in million dollars)			
311 Food products	2773	3993	4208
313 Beverages	524	785	925
314 Tobacco products	177	248	216
321 Textiles	713	1050	972
322 Wearing apparel	575	821	778
323 Leather and fur products	71	83	91
324 Footwear	119	223	199
331 Wood and wood products	780	1052	1005
332 Furniture and fixtures	328	505	505
341 Paper and paper products	544	744	763
342 Printing and publishing	1132	1818	2010
351 Industrial chemicals	564	969	935
352 Other chemical products	772	1186	1300
353 Petroleum refineries	170	323	297
354 Misc. petroleum and coal products	21	30	26
355 Rubber products	291	341	277
356 Plastic products	519	831	861
361 Pottery, china and earthenware	35	46	45
362 Glass and glass products	161	246	273
369 Other non-metal mineral products	810	1183	1177
371 Iron and steel	1393	1920	1777
372 Non-ferrous metals	729	1473	1377
381 Metal products	1629	2467	2377
382 Non-electrical machinery	1809	2091	1977
3 Electrical machinery	1,02	1351	1005
304 Transport equipment	2055	2830	2878
385 Professional and scientific equipment	164	290	311
390 Other manufact. & industries	175	263	248

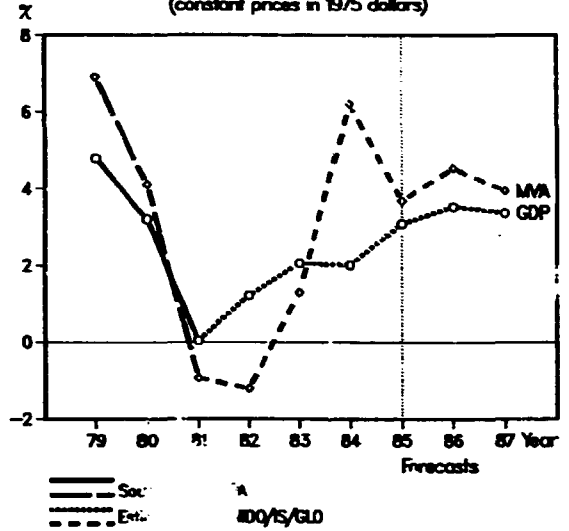
For source, footnotes and comments see "Technical notes" above.



Industrial structural change
(Index of value added: 1970=100)

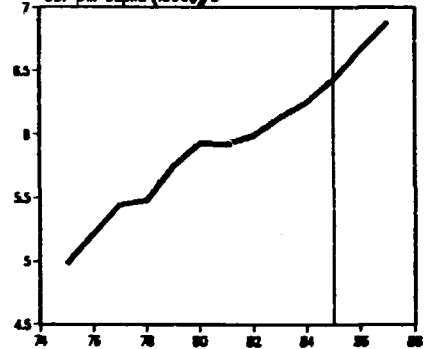


Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

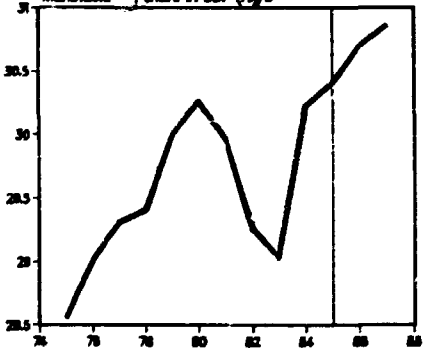


	1975	1980	1983
GDP: /na (in million dollars)	37740 /c	44754 /c	46262 /c
Per capita (in dollars)	4980 /c	5930 /c	6126 /c
Manufacturing share /na (%)	28.6 /c	30.3 /c	29.0 /c
MANUFACTURING:			
Value added /na (in million dollars)	10777 /c	12546 /c	13433 /c
Value added (in million dollars)	9432	18114	...
Industrial production index	100	125	124
Gross output (in million dollars)	26981	54755	...
Employment (in thousands)	794	824	781
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	65	67	...
Wages and salaries (%)	20	19	...
Operating surplus (%)	15	14	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	33973	66463	...
Value added / worker	11877	21987	...
Average wage	6669	12520	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	3.94	2.48	3.15
in percentage of θ in 1970-1975	127	80	101
Growth rate / structural change	-1.63	1.12	0.61
Degree of specialization	10.7	11.4	11.2
-VALUE ADDED: (in million dollars)			
311 Food products	899	1755	...
313 Beverages	307	475	...
314 Tobacco products	319	808	...
321 Textiles	464	901	...
322 Wearing apparel	313	513	...
323 Leather and fur products	39	63	...
324 Footwear	103	223	...
331 Wood and wood products	113	193	...
332 Furniture and fixtures	509	966	...
341 Paper and paper products	350	646	...
342 Printing and publishing	307	727	...
351 Industrial chemicals	346	664	...
352 Other chemical products	291	535	...
353 Petroleum refineries	141	177	...
354 Misc. petroleum and coal products	16	35	...
355 Rubber products	148	259	...
356 Plastic products	123	281	...
361 Pottery, china and earthenware	28	63	...
362 Glass and glass products	102	244	...
369 Other non-metal mineral products	536	895	...
371 Iron and steel	687	1227	...
372 Non-ferrous metals	102	280	...
381 Metal products	971	1545	...
382 Non-electrical machinery	747	1768	...
383 Electrical machinery	830	1618	...
384 Transport equipment	466	945	...
385 Professional and scientific equipment	115	161	...
380 Other manufacturing industries	60	143	...

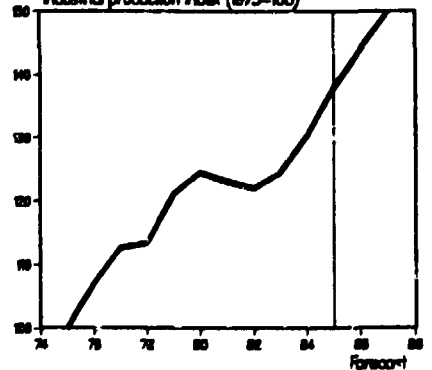
GDP per capita (1000\$)/c



Manufact. share in GDP (%)/c



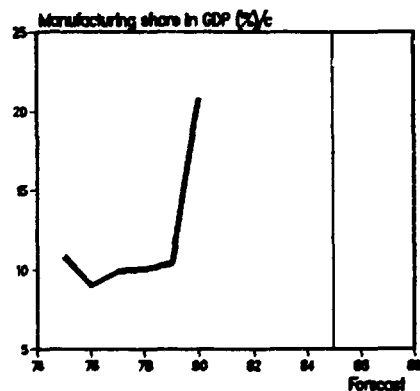
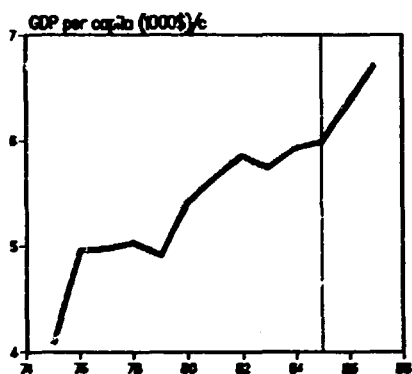
Industrial production index (1975=100)



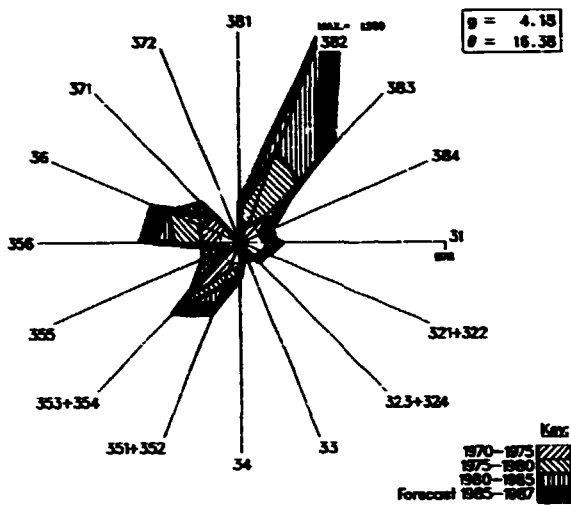
For source, footnotes and comments see "Technical notes" above.

	1975	1980	1983
GDP: /na (in million dollars)	1044 /c	1880 /c	2280 /c
Per capita (in dollars)	4078 /c	5416 /c	5744 /c
Manufacturing share /na (%)	10.8 /c	20.8 /c	...
MANUFACTURING:			
Value added /na (in million dollars)	113 /c	391 /c	...
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output):			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change B (in degrees)
in percentage of B in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
390 Other manufacturing industries

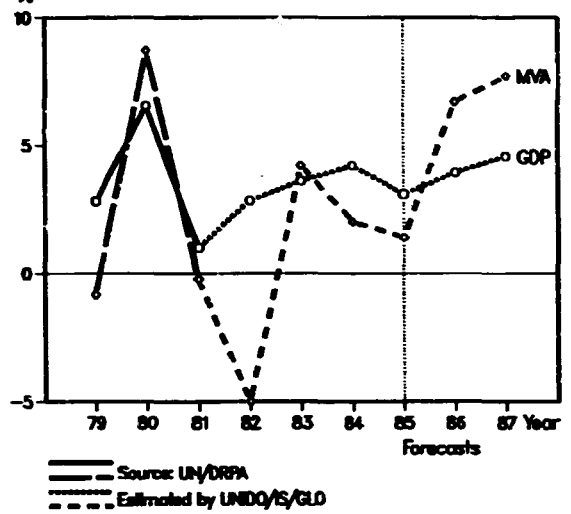
For source, footnotes and comments see "Technical notes" above.



Industrial structural change
(Index of value added: 1970=100)

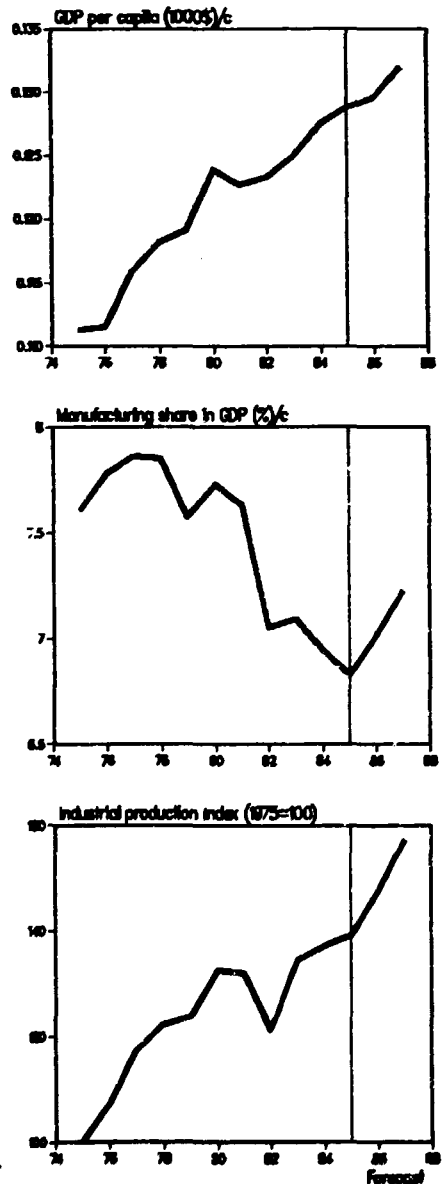


Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

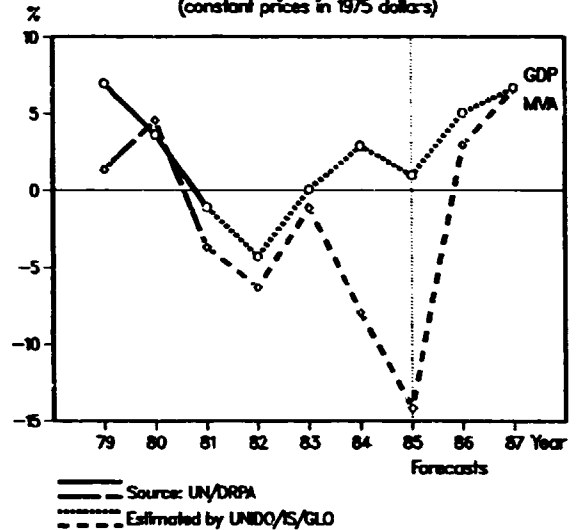


	1975	1980	1983
GDP: /na (in million dollars)	8790 /c	10990 /c	11829 /c
Per capita (in dollars)	111 /c	124 /c	125 /c
Manufacturing share /na (%)	7.6 /c	7.7 /c	7.1 /c
MANUFACTURING:			
Value added /na (in million dollars)	669 /c	849 /c	839 /c
Value added (in million dollars)	392	778	...
Industrial production index	100	132	135
Gross output (in million dollars)	986	2162	...
Employment (in thousands)	357	419	473
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	60	64	...
Wages and salaries (%)	13	12	...
Operating surplus (%)	27	24	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	2764	5156	...
Value added / worker	1097	1855	...
Average wage	358	613	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	6.33	1.45	8.34
in percentage of θ in 1970-1975	225	52	296
Growth rate / structural change	1.14	4.83	1.30
Degree of specialization	35.4	34.0	33.3
-VALUE ADDED: (in million dollars)			
311 Food products	45	89	...
313 Beverages	4	8	...
314 Tobacco products	82	103	...
321 Textiles	139	286	...
322 Wearing apparel	-	-	...
323 Leather and fur products	4	20	...
324 Footwear	1	4	...
331 Wood and wood products	-	3	...
332 Furniture and fixtures	-	1	...
341 Paper and paper products	7	19	...
342 Printing and publishing	3	7	...
351 Industrial chemicals	20	47	...
352 Other chemical products	32	55	...
353 Petroleum refineries	1	2	...
354 Misc. petroleum and coal products	-	-	...
355 Rubber products	3	4	...
356 Plastic products	-	1	...
361 Pottery, china and earthenware	1	2	...
362 Glass and glass products	2	3	...
369 Other non-metal mineral products	4	14	...
371 Iron and steel	23	49	...
372 Non-ferrous metals	-	-	...
381 Metal products	6	10	...
382 Non-electrical machinery	2	7	...
383 Electrical machinery	4	23	...
384 Transport equipment	5	16	...
385 Professional and scientific equipmer.	2	5	...
390 Other manufacturing industries	-	-	...

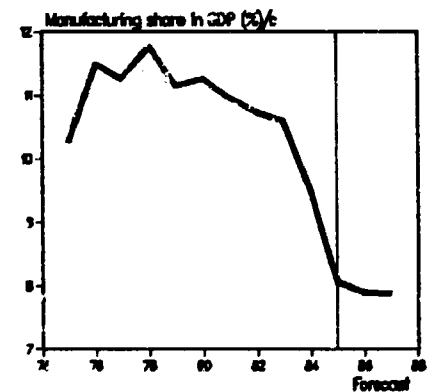
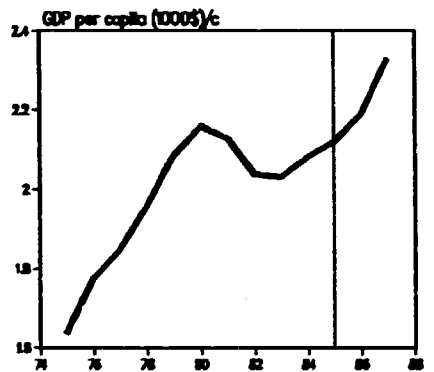
For source, footnotes and comments see "Technical notes" above.



Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

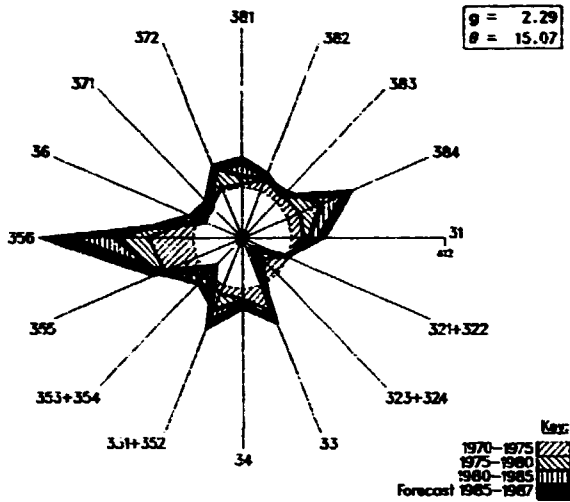


	1975	1980	1983
GDP: /na (in million dollars)	402 /c	538 /c	510 /c
Per capita (in dollars)	1635 /c	2160 /c	2031 /c
Manufacturing share /na (%):	10.3 /c	11.3 /c	10.6 /c
MANUFACTURING:			
Value added /na (in million dollars)	41 /c	61 /c	54 /c
Value added (in million dollars)	30	...	...
Industrial production index	...	...	...
Gross output (in million dollars)	116	...	...
Employment (in thousands)	8	9	9
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	74	...	...
Wages and salaries (%)	14	...	...
Operating surplus (%)	12	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	14064	...	...
Value added / worker	3689	...	...
Average wage	1958	...	...
-STRUCTURAL INDICES:			
Structural change B (in degrees)	...	...	...
in percentage of B in 1970-1975	...	...	...
Growth rate / structural change	...	...	...
Degree of specialization	...	...	...
-VALUE ADDED: (in million dollars)			
311 Food products	6	...	...
313 Beverages	5	...	...
314 Tobacco products	1	...	...
321 Textiles	1	...	...
322 Wearing apparel	4	...	...
323 Leather and fur products	-	...	...
324 Footwear	-	...	...
331 Wood and wood products	-	...	...
332 Furniture and fixtures	-	...	...
341 Paper and paper products	-	...	...
342 Printing and publishing	2	...	...
351 Industrial chemicals	1 a	...	...
352 Other chemical products	- a	...	...
353 Petroleum refineries	1	...	...
354 Misc. petroleum and coal products	-	...	...
355 Rubber products	1 b	...	...
356 Plastic products	- b	...	...
361 Pottery, china and earthenware	-	...	...
362 Glass and glass products	-	...	...
369 Other non-metal mineral products	1	...	...
371 Iron and steel	-	...	...
372 Non-ferrous metals	-	...	...
381 Metal products	1	...	...
382 Non-electrical machinery	2	...	...
383 Electrical machinery	1	...	...
384 Transport equipment	1	...	...
385 Professional and scientific equipment	-	...	...
390 Other manufacturing industries	1	...	...

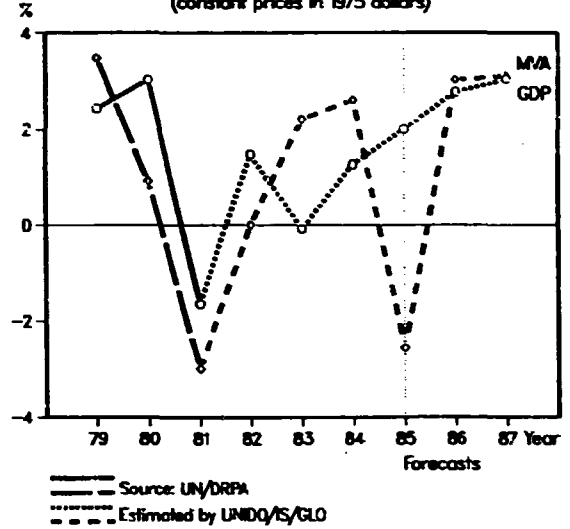


For source, footnote, and comments see "Technical notes" above.

Industrial structural change
(Index of value added: 1970=100)

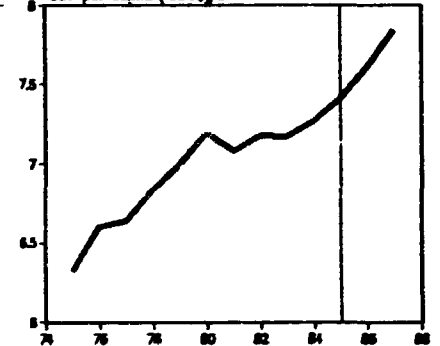


Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

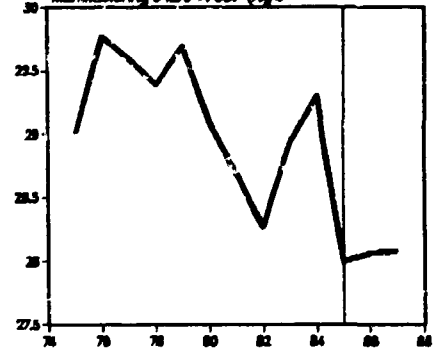


	1975	1980	1983
GDP: /na (in million dollars)	61934 /c	70906 /c	70709 /c
Per capita (in dollars)	6326 /c	7199 /c	7171 /c
Manufacturing share /na (%)	29.0 /c	29.1 /c	28.9 /c
MANUFACTURING:			
Value added /na (in million dollars)	17968 /c	20625 /c	20448 /c
Value added (in million dollars)	15696	27273	18272
Industrial production index	100	114	116
Gross output (in million dollars)	45563	79309	...
Employment (in thousands)	1033	868	772
-PROFITABILITY: (in percent of gross output):			
Intermediate input (%)	66	66	...
wages and salaries (%)	18	18	...
Operating surplus (%)	16	17	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	44107	91370	...
Value added / worker	15197	31421	...
Average wage	8061	16171	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	5.52	2.24	1.74
in percentage of θ in 1970-1975	165	67	52
Growth rate / structural change	-1.30	-0.65	1.03
Degree of specialization	12.6	12.8	13.7
-VALUE ADDED: (in million dollars)			
311 Food products	2268	3983	2910
313 Beverages	393	548	417
314 Tobacco products	122	199	141
321 Textiles	883	1449	1070
322 Wearing apparel	589	661	420
323 Leather and fur products	65	109	77
324 Footwear	64	65	45
331 Wood and wood products	60	140	80
332 Furniture and fixtures	670	1165	745
341 Paper and paper products	354	613	434
342 Printing and publishing	591	928	567
351 Industrial chemicals	1259	2404	1926
352 Other chemical products	288	664	493
353 Petroleum refineries	112	505	254
354 Misc. petroleum and coal products	26	77	39
355 Rubber products	123	192	125
356 Plastic products	343	815	578
361 Pottery, china and earthenware	68	117	61
362 Glass and glass products	255	442	229
369 Other non-metal mineral products	414	718	372
371 Iron and steel	831	1480	643
372 Non-ferrous metals	286	490	356
381 Metal products	1244	2083	1372
382 Non-electrical machinery	1468	2458	1619
383 Electrical machinery	1363	2315	1525
384 Transport equipment	1126	1886	1242
385 Professional and scientific equipment	118	197	129
390 Other manufacturing industries	278	569	403

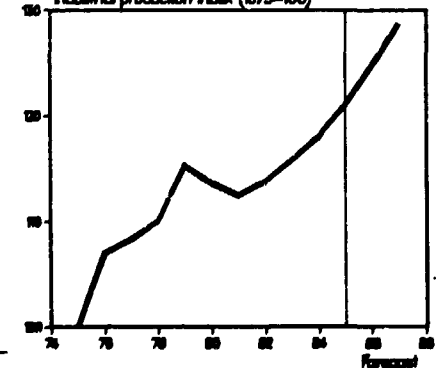
GDP per capita (1000\$/c)



Manufacturing share in GDP (%/c)

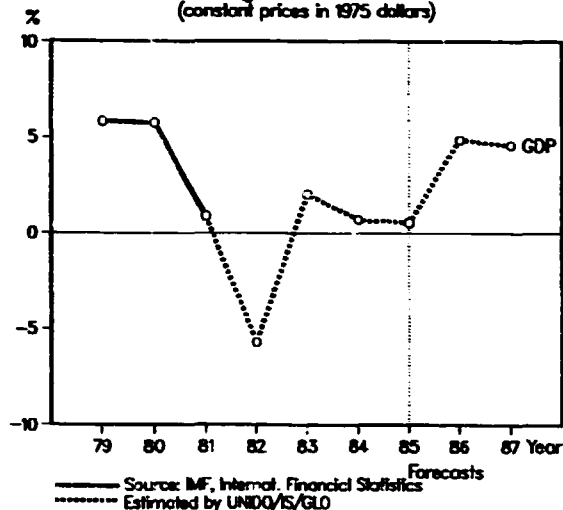


Industrial production index (1975=100)

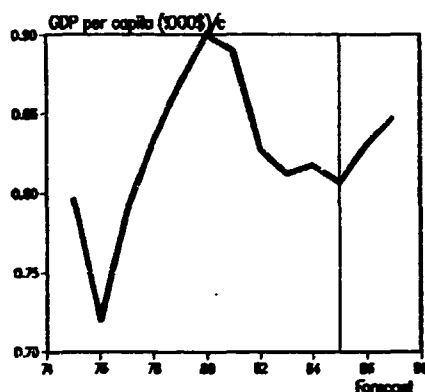


For source, footnotes and comments see "Technical notes" above.

Annual growth rate of GDP
(constant prices in 1975 dollars)

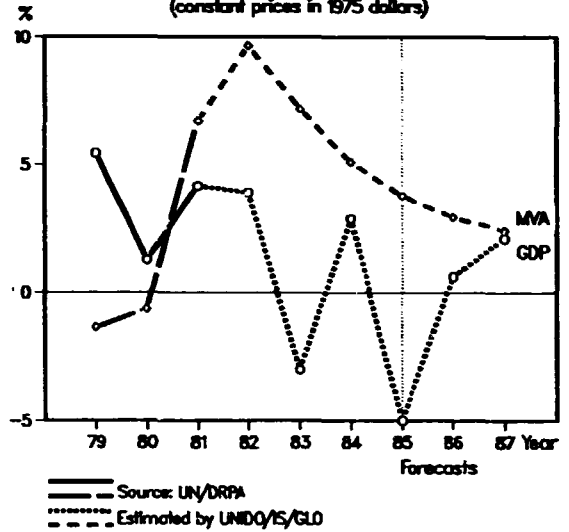


	1975	1980	1983
GDP: /na (in million dollars)	104 /c	131 /c	127 /c
Per capita (in dollars)	797 /c	900 /c	812 /c
Manufacturing share /na (%)	...	...	...
MANUFACTURING:			
Value added /na (in million dollars)	...	...	...
Value added (in million dollars)	13	...	...
Industrial production index	...	...	...
Gross output (in million dollars)	...	...	...
Employment (in thousands)	...	...	...
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	...	...	...
wages and salaries (%)	...	...	...
Operating surplus (%)	...	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	...	...	...
Value added / worker	...	...	...
Average wage	...	...	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	...	...	...
in percentage of θ in 1970-1975	...	...	...
Growth rate / structural change	...	...	...
Degree of specialization	...	...	...
-VALUE ADDED: (in million dollars)			
311 Food products	8	...	...
313 Beverages	2	...	...
314 Tobacco products	-	...	...
321 Textiles	-	...	...
322 Wearing apparel	1	...	...
323 Leather and fur products	-	...	...
324 Footwear	-	...	...
331 Wood and wood products	-	...	...
332 Furniture and fixtures	-	...	...
341 Paper and paper products	-	...	...
342 Printing and publishing	-	...	...
351 Industrial chemicals	-	...	...
352 Other chemical products	-	...	...
353 Petroleum refineries	-	...	...
354 Misc. petroleum and coal products	-	...	...
355 Rubber products	-	...	...
356 Plastic products	-	...	...
361 Pottery, china and earthenware	-	...	...
362 Glass and glass products	-	...	...
369 Other non-metal mineral products	-	...	...
371 Iron and steel	- a	...	...
372 Non-ferrous metals	- a	...	...
381 Metal products	-	...	...
382 Non-electrical machinery	-	...	...
383 Electrical machinery	-	...	...
384 Transport equipment	-	...	...
385 Professional and scientific equipment	-	...	...
390 Other manufacturing industries	-	...	...



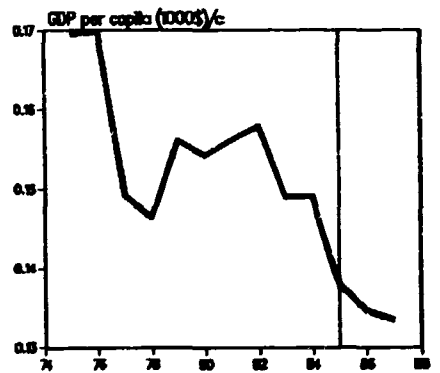
For source, footnotes and comments see "Technical notes" above.

Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



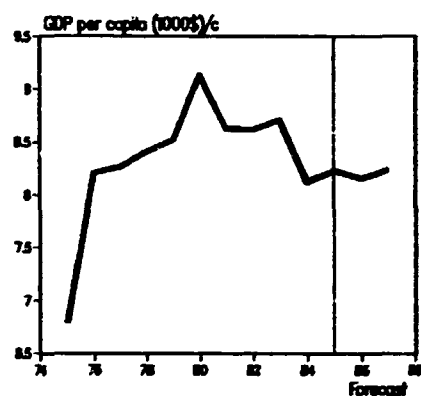
	1975	1980	1983
GDP: /na (in million dollars)	528 /c	528 /c	554 /c
Per capita (in dollars)	170 /c	154 /c	149 /c
Manufacturing share /na (%)	9.3 /c	6.5 /c	7.6 /c
MANUFACTURING:			
Value added /na (in million dollars)	49 /c	34 /c	43 /c
Value added (in million dollars)	50	65	...
Industrial production index	...	...	...
Gross output (in million dollars)	123	218	...
Employment (in thousands)	5	6	7
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	60	70	...
Wages and salaries (%)	7	8	...
Operating surplus (%)	33	22	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	20723	35171	...
Value added / worker	8277	10460	...
Average wage	1522	2642	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	...	...	...
in percentage of θ in 1970-1975	...	...	...
Growth rate / structural change	...	...	...
Degree of specialization	...	...	...
-VALUE ADDED: (in million dollars)			
311 Food products	17	27	...
313 Beverages	10	11	...
314 Tobacco products	-	-	...
321 Textiles	8	4	...
322 Wearing apparel	2	3	...
323 Leather and fur products	-	-	...
324 Footwear	1	2	...
331 Wood and wood products	1	1	...
332 Furniture and fixtures	1	2	...
341 Paper and paper products	-	-	...
342 Printing and publishing	1	1	...
351 Industrial chemicals	-	-	...
352 Other chemical products	2	4	...
353 Petroleum refineries	-	-	...
354 Misc. petroleum and coal products	-	-	...
355 Rubber products	-	-	...
356 Plastic products	-	-	...
361 Pottery, china and earthenware	-	-	...
362 Glass and glass products	-	-	...
369 Other non-metal mineral products	3	4	...
371 Iron and steel	-	-	...
372 Non-ferrous metals	-	-	...
381 Metal products	4	4	...
382 Non-electrical machinery	-	-	...
383 Electrical machinery	-	-	...
384 Transport equipment	-	-	...
385 Professional and scientific equipment	-	-	...
390 Other manufacturing industries	-	-	...

For source, footnotes and comments see "Technical notes" above.

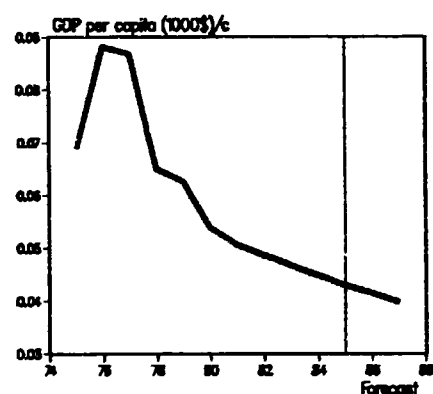


	1975	1980	1983
GDP: /na (in million dollars)	360 /c	493 /c	479 /c
Per capita (in dollars)	6792 /c	9130 /c	8709 /c
Manufacturing share /na (%)
MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
365 Professional and scientific equipment
290 Other manufacturing industries

For source, footnotes and comments see "Technical notes" above.

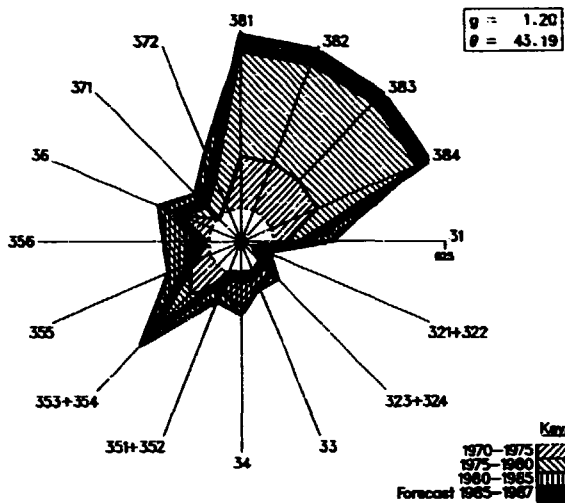


	1975	1980	1983
GDP: /na (in million dollars)	80 /c	69 /c	64 /c
Per capita (in dollars)	68 /c	54 /c	47 /c
Manufacturing share /na (%)
MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
390 Other manufacturing industries

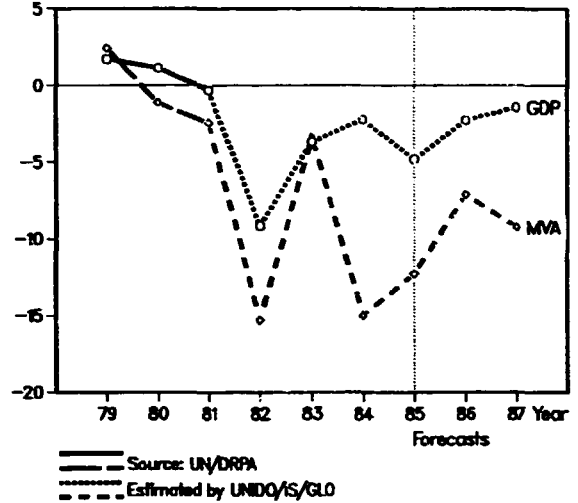


For source, footnotes and comments see "Technical notes" above.

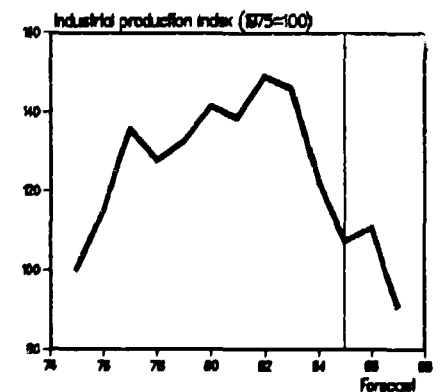
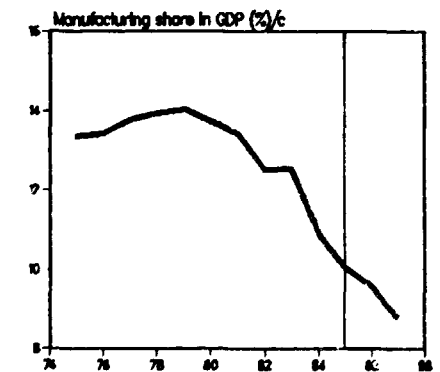
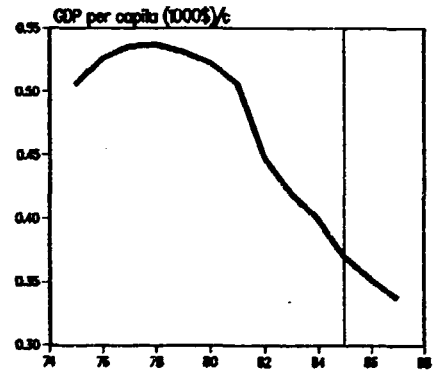
Industrial structural change
(Index of value added: 1970=100)



Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

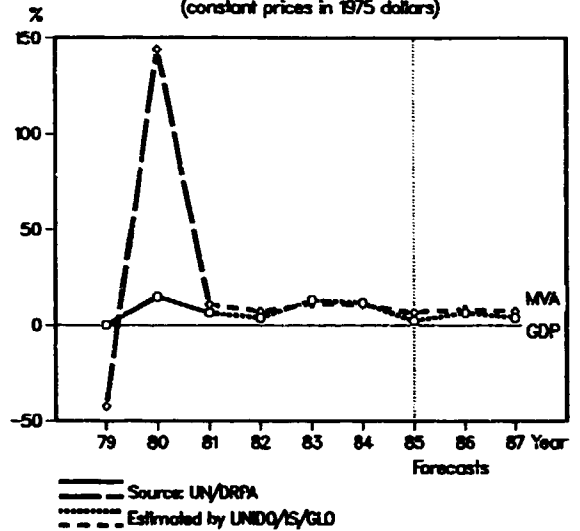


	1975	1980	1983
GDP: /na (in million dollars)	2473 /c	2927 /c	2554 /c
Per capita (in dollars)	506 /c	523 /c	420 /c
Manufacturing share /na (%)	13.3 /c	13.7 /c	12.6 /c
MANUFACTURING:			
Value added /na (in million dollars)	330 /c	402 /c	321 /c
Value added (in million dollars)	330	755	...
Industrial production index	100	141	146
Gross output (in million dollars)	805	1852	...
Employment (in thousands)	84	99	112
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	59	59	...
Wages and salaries (%)	17	14	...
Operating surplus (%)	24	27	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	9615	18633	...
Value added / worker	3944	7597	...
Average wage	1660	2629	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	4.04	4.11	4.11
in percentage of θ in 1970-1975	78	79	79
Growth rate / structural change	1.22	1.62	-0.50
Degree of specialization	21.7	25.2	25.2
-VALUE ADDED: (in million dollars)			
311 Food products	90	202	...
313 Beverages	28	62	...
314 Tobacco products	8	18	...
321 Textiles	53	71	...
322 Wearing apparel	6	8	...
323 Leather and fur products	6	8	...
324 Footwear	24	32	...
331 Wood and wood products	14	25	...
332 Furniture and fixtures	3	4	...
341 Paper and paper products	-	-	...
342 Printing and publishing	6	10	...
351 Industrial chemicals	3	10	...
352 Other chemical products	19	73	...
353 Petroleum refineries	16	62	...
354 Misc. petroleum and coal products	-	1	...
355 Rubber products	2	9	...
356 Plastic products	11	41	...
361 Pottery, china and earthenware	-	-	...
362 Glass and glass products	3	8	...
369 Other non-metal mineral products	11	33	...
371 Iron and steel	-	1	...
372 Non-ferrous metals	6	31	...
381 Metal products	5	15	...
382 Non-electrical machinery	3	11	...
383 Electrical machinery	1	2	...
384 Transport equipment	2	5	...
385 Professional and scientific equipment	-	1	...
390 Other manufacturing industries	10	12	...



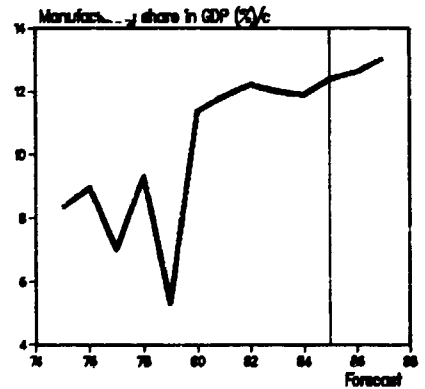
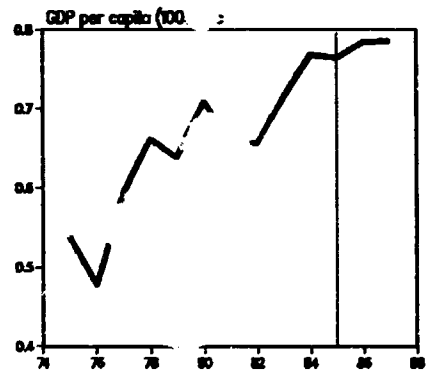
For source, footnotes and comments see "Technical notes" above.

Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

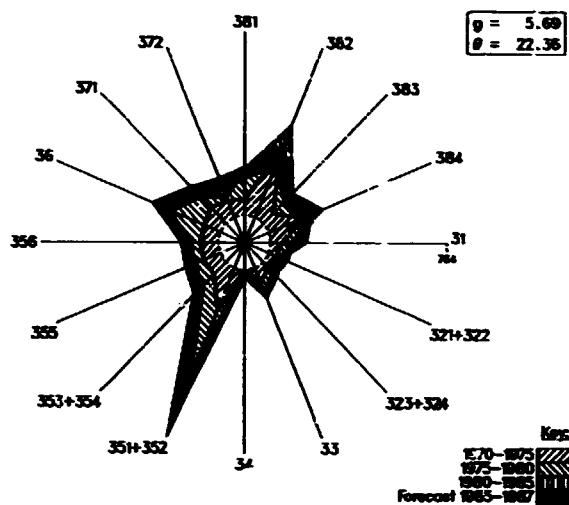


	1975	1980	1983
GDP: /na (in million dollars)	369 /c	580 /c	724 /c
Per capita (in dollars)	539 /c	708 /c	715 /c
Manufacturing share /na (%)	8.3 /c	11.4 /c	12.0 /c
MANUFACTURING:			
Value added /na (in million dollars)	31 /c	66 /c	87 /c
Value added (in million dollars)	21	38	74
Industrial production index	...	...	...
Gross output (in million dollars)	88	148	254
Employment (in thousands)	4	5	10
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	...	...	...
Wages and salaries (%)	...	...	...
Operating surplus (%)	...	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	...	...	...
Value added / worker	...	...	...
Average wage	...	...	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	...	...	...
in percentage of θ in 1970-1975	...	...	...
Growth rate / structural change	...	...	...
Degree of specialization	...	...	...
-VALUE ADDED: (in million dollars)			
311 Food products	...	13	...
313 Beverages	...	4	...
314 Tobacco products	...	-	...
321 Textiles	...	6 a	...
322 Wearing apparel	...	- a	...
323 Leather and fur products	...	1 b	...
324 Footwear	...	- b	...
331 Wood and wood products	...	1 c	...
332 Furniture and fixtures	...	- c	...
341 Paper and paper products	...	1 d	...
342 Printing and publishing	...	- d	...
351 Industrial chemicals	...	1 e	...
352 Other chemical products	...	- e	...
353 Petroleum refineries	...	-	...
354 Misc. petroleum and coal products	...	-	...
355 Rubber products	...	- e	...
356 Plastic products	...	- e	...
361 Pottery, china and earthenware	...	-	...
362 Glass and glass products	...	-	...
369 Other non-metal mineral products	...	-	...
371 Iron and steel	...	-	...
372 Non-ferrous metals	...	-	...
381 Metal products	...	1 f	...
382 Non-electrical machinery	...	- f	...
383 Electrical machinery	...	- f	...
384 Transport equipment	...	- f	...
385 Professional and scientific equipment	...	-	...
380 Other manufacturing industries	...	12	...

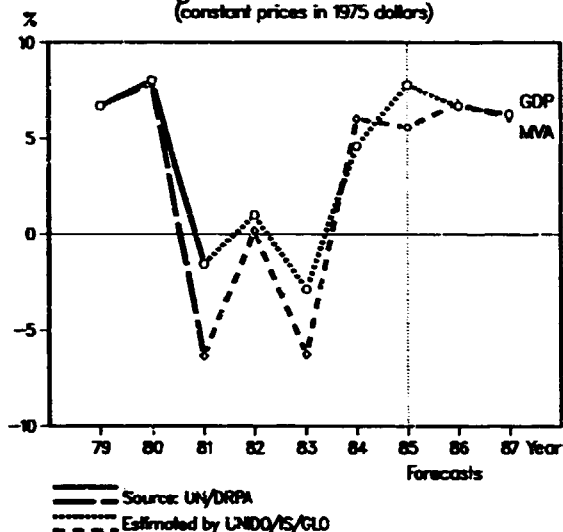
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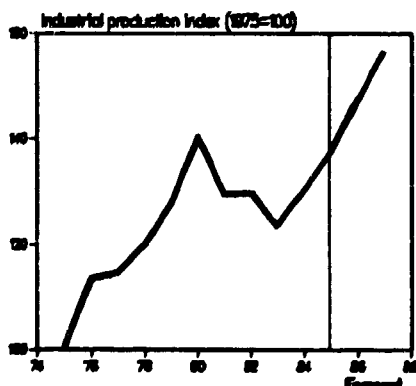
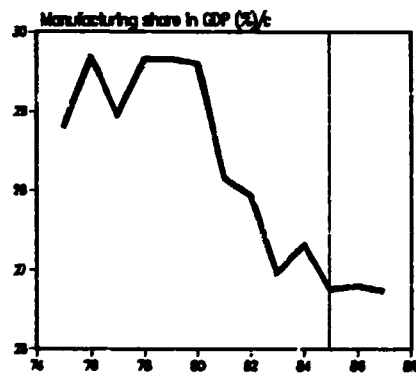
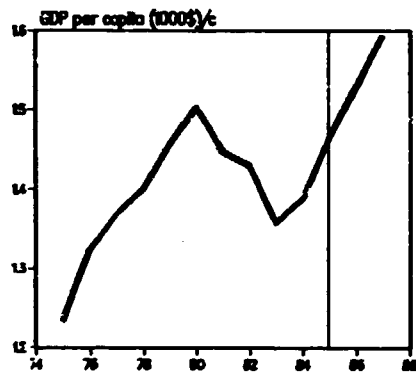
Industrial structural change
(Index of value added: 1970=100)



Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



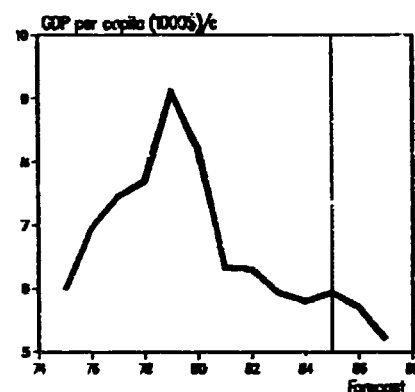
	1975	1980	1983
GDP: /na (in million dollars)	129453 /c	182315 /c	176070 /c
Per capita (in dollars)	1234 /c	1503 /c	1358 /c
Manufacturing share /na (%)	28.8 /c	29.6 /c	27.0 /c
MANUFACTURING:			
Value added /na (in million dollars)	37275 /c	53966 /c	47462 /c
Value added (in million dollars)	35636	72395	...
Industrial production index	100	140	124
Gross output (in million dollars)	90580	177939	...
Employment (in thousands)	3519	4580	5313
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	61	59	...
Wages and salaries (%)	8	7	...
Operating surplus (%)	32	34	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	25740	38851	...
Value added / worker	10127	15807	...
Average wage	1949	2714	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	2.80	2.40	3.78
in percentage of θ in 1970-1975	60	51	81
Growth rate / structural change	1.82	4.00	-1.27
Degree of specialization	12.3	11.2	11.5
-VALUE ADDED: (in million dollars)			
311 Food products	4171	7247	...
313 Beverages	664	889	...
314 Tobacco products	394	495	...
321 Textiles	2313	4752	...
322 Wearing apparel	1034	2323	...
323 Leather and fur products	197	338	...
324 Footwear	381	1228	...
331 Wood and wood products	1058	1924	...
332 Furniture and fixtures	726	1286	...
341 Paper and paper products	947	2252	...
342 Printing and publishing	1378	1902	...
351 Industrial chemicals	1548	3996	...
352 Other chemical products	1427	4098	...
353 Petroleum refineries	1475	4246	...
354 Misc. petroleum and coal products	156	419	...
355 Rubber products	628	942	...
356 Plastic products	849	1807	...
361 Pottery, china and earthenware	239	418	...
362 Glass and glass products	327	636	...
369 Other non-metal mineral products	1735	3155	...
371 Iron and steel	2171	4196	...
372 Non-ferrous metals	570	1046	...
381 Metal products	2009	3287	...
382 Non-electrical machinery	3888	7531	...
383 Electrical machinery	2166	4721	...
384 Transport equipment	2387	5626	...
385 Professional and scientific equipment	238	461	...
390 Other manufacturing industries	580	1125	...



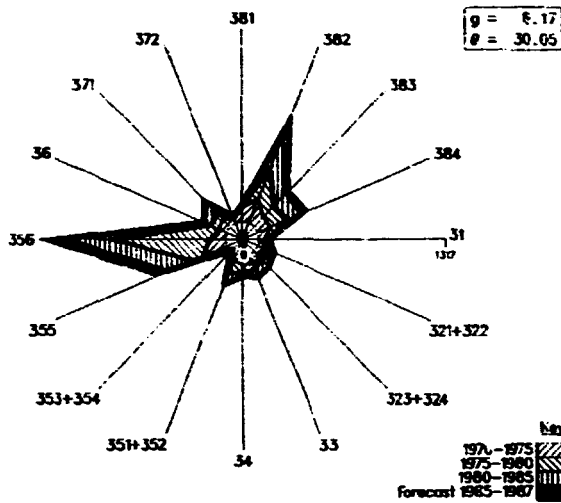
For source, footnotes and comments see "Technical notes" above.

	1975	1980	1983
GDP: /na (in million dollars)	935 /c	1517 /c	1270 /c
Per capita (in dollars)	5986 /c	8190 /c	5936 /c
Manufacturing share /na (%)
MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change B (in degrees)
in percentage of B in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
390 Other manufacturing industries

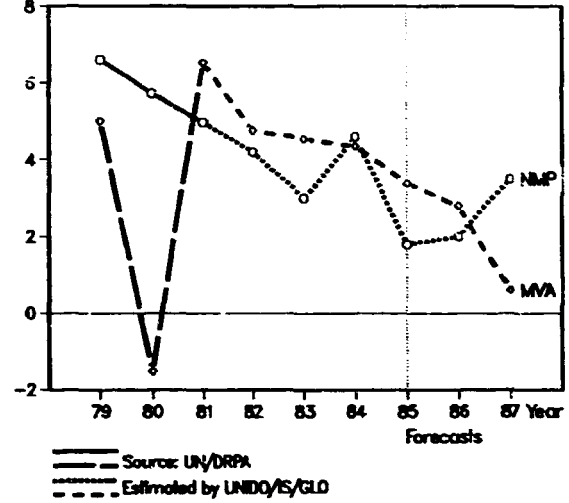
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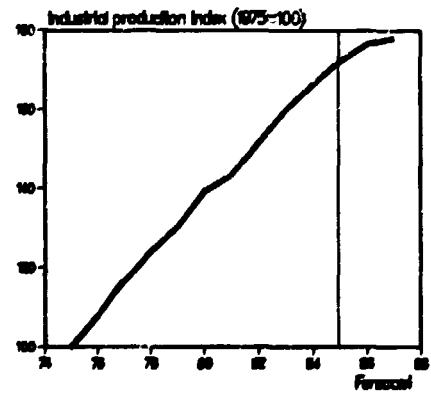
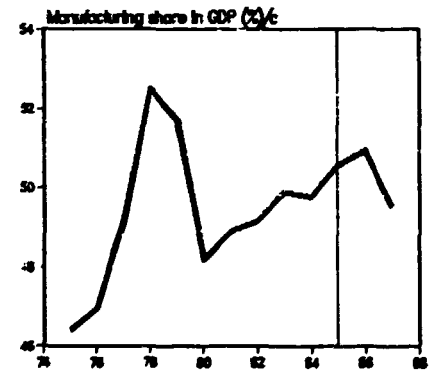
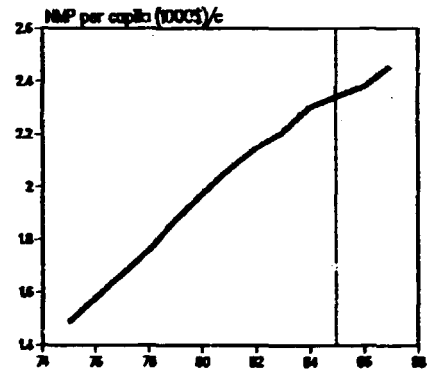
Industrial structural change
(Index of value added: 1970=100)



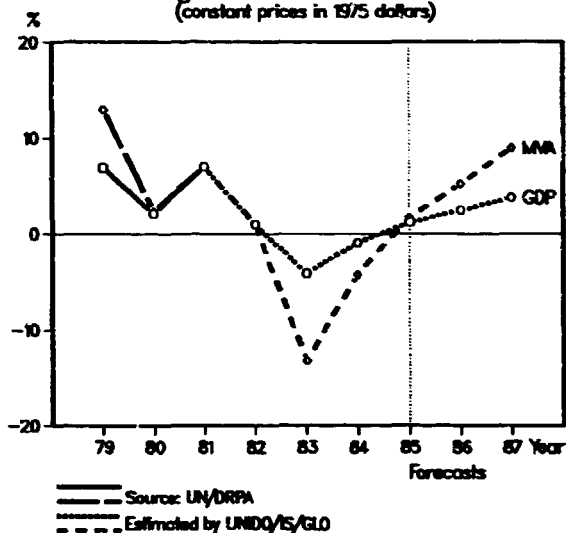
Annual growth rates of NMP and MVA
(constant prices in 1975 dollars)



	1975	1980	1983
NMP: /na (in million dollars)	12975 /c	17483 /c	19697 /c
Per capita (in dollars)	1488 /c	1973 /c	2203 /c
Manufacturing share /na (%)	46.4 /c	48.2 /c	49.9 /c
MANUFACTURING:			
Value added /na (in million dollars)	6024 /c	8422 /c	9827 /c
Value added (in million dollars)	...	...	...
Industrial production index	100	135	160
Gross output (in million dollars)	...	...	...
Employment (in thousands)	1197	1260	1292
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	...	...	...
Wages and salaries (%)	...	...	...
Operating surplus (%)	...	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	...	...	...
Value added / worker	...	...	...
Average wage	...	...	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	2.61	7.84	3.73
in percentage of θ in 1970-1975	79	238	113
Growth rate / structural change	3.91	0.87	1.42
Degree of specialization	11.4	11.4	11.1
-VALUE ADDED: (in million dollars)			
311 Food products	...	...	...
313 Beverages	...	...	...
314 Tobacco products	...	...	...
321 Textiles	...	...	...
322 Wearing apparel	...	...	...
323 Leather and fur products	...	...	...
324 Footwear	...	...	...
331 Wood and wood products	...	...	...
332 Furniture and fixtures	...	...	...
341 Paper and paper products	...	...	...
342 Printing and publishing	...	...	...
35; Industrial chemicals	...	...	...
352 Other chemical products	...	...	...
353 Petroleum refineries	...	...	...
354 Misc. petroleum and coal products	...	...	...
355 Rubber products	...	...	...
356 Plastic products	...	...	...
361 Pottery, china and earthenware	...	...	...
362 Glass and glass products	...	...	...
369 Other non-metal mineral products	...	...	...
371 Iron and steel	...	...	...
372 Non-ferrous metals	...	...	...
381 Metal products	...	...	...
382 Non-electrical machinery	...	...	...
383 Electrical machinery	...	...	...
384 Transport equipment	...	...	...
385 Professional and scientific equipment	...	...	...
389 Other manufacturing industries	...	...	...

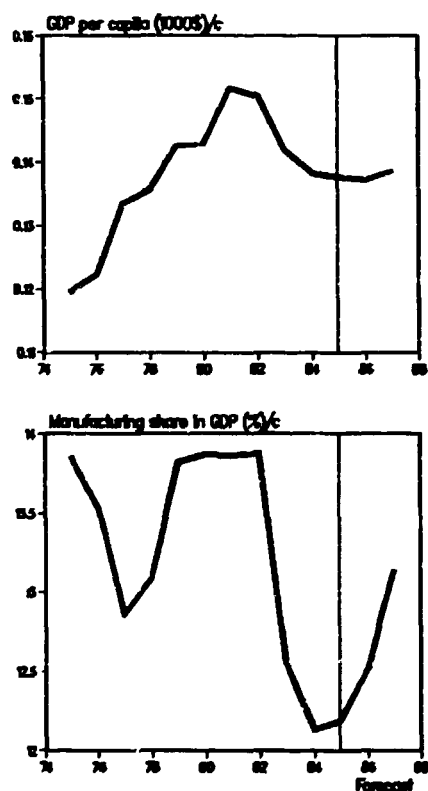


For source, footnotes and comments see "Technical notes" above.

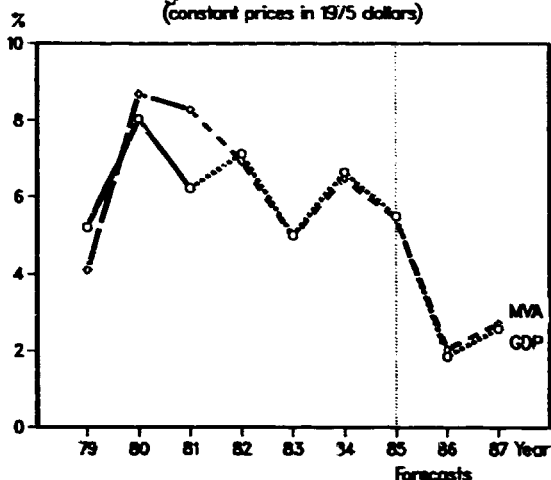
Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

	1975	1980	1983
GDP: /na (in million dollars)	674 /c	879 /c	911 /c
Per capita (in dollars)	119 /c	143 /c	142 /c
Manufacturing share /na (%)	13.9 /c	13.9 /c	12.6 /c
MANUFACTURING:			
Value added /na (in million dollars)	93 /c	122 /c	114 /c
Value added (in million dollars)	84	145	129
Industrial production index	...	...	...
Gross output (in million dollars)	208	392	325
Employment (in thousands)	8	8	9
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	60	63	60
Wages and salaries (%)	5	6	7
Operating surplus (%)	35	28	33
-PRODUCTIVITY: (in dollars)			
Gross output / worker	26976	47246	37538
Value added / worker	10864	17436	14932
Average wage	1404	4015	2727
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	...	...	...
in percentage of θ in 1970-1975	...	...	...
Growth rate / structural change	...	...	...
Degree of specialization	...	...	...
-VALUE ADDED: (in million dollars)			
311 Food products	34	55	59
313 Beverages	17	29	22
314 Tobacco products	1	1	1
321 Textiles	4	20	18
322 Wearing apparel	-	2	2
323 Leather and fur products	-	2	2
324 Footwear	1	3	3
331 Wood and wood products	-	-	-
332 Furniture and fixtures	2	2	1
341 Paper and paper products	-	-	-
342 Printing and publishing	-	1	1
351 Industrial chemicals	2	1	1
352 Other chemical products	1	-	-
353 Petroleum refineries	-	-	-
354 Misc. petroleum and coal products	-	-	-
355 Rubber products	6	4	2
356 Plastic products	3	2	1
361 Pottery, china and earthenware	-	-	-
362 Glass and glass products	-	-	-
369 Other non-metal mineral products	1	-	-
371 Iron and steel	- a	1 a	1 a
372 Non-ferrous metals	- a	- a	- a
381 Metal products	-	1	-
382 Non-electrical machinery	-	1	-
383 Electrical machinery	-	1	1
384 Transport equipment	-	3	1
385 Professional and scientific equipment	-	-	-
390 Other manufacturing industries	9	12	11

For source, footnotes and comments see "Technical notes" above.



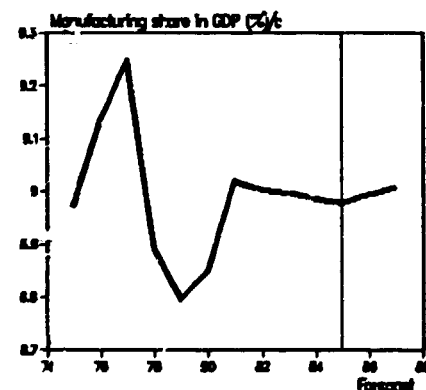
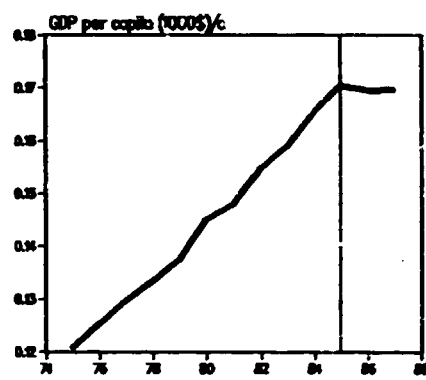
Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

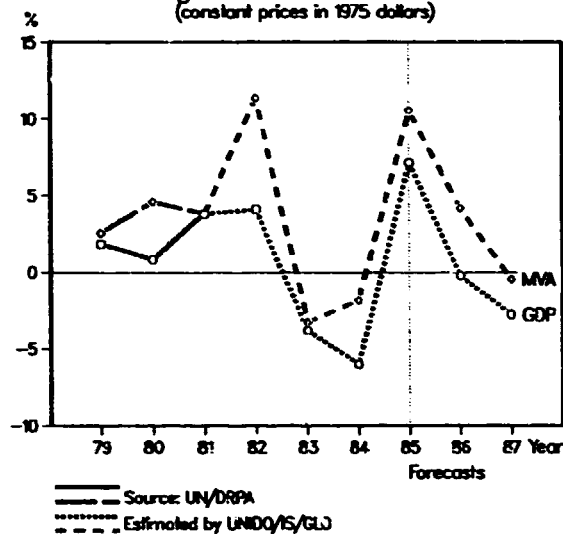


Source: UN/DRPA
Estimated by UNDO/IS/GLC

	1975	1980	1983
GDP: /na (in million dollars)	3641 /c	4887 /c	5839 /c
Per capita (in dollars)	121 /c	145 /c	159 /c
Manufacturing share /na (%)	9.0 /c	8.8 /c	9.0 /c
MANUFACTURING:			
Value added /na (in million dollars)	327 /c	432 /c	525 /c
Value added (in million dol. u. s.)
Industrial production index
Gross output (in million dollars)	1580	...	...
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
390 Other manufacturing industries

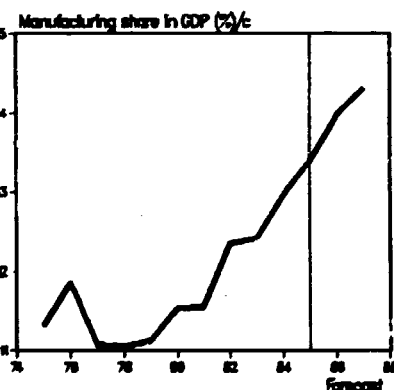
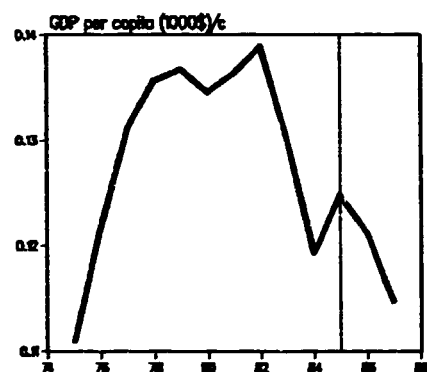
For source, footnotes and comments see "Technical notes" above.



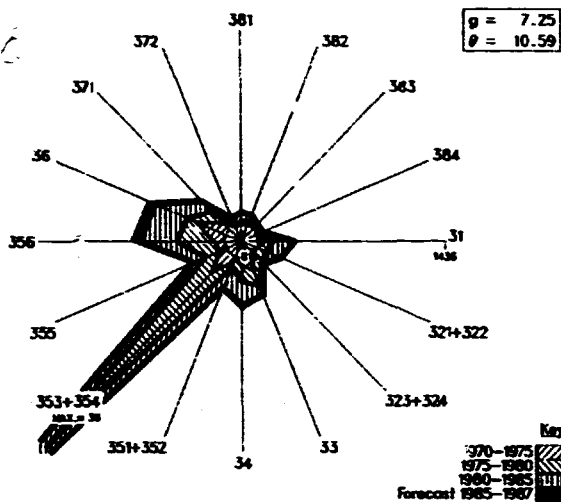
Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

	1975	1980	1983
GDP /na (in million dollars)	415 /c	554 /c	576 /c
Per capita (in dollars)	111 /c	134 /c	130 /c
Manufacturing share /na (%)	11.3 /c	11.5 /c	12.4 /c
MANUFACTURING:			
Value added /na (in million dollars)	47 /c	64 /c	72 /c
Value added (in million dollars)	21	55	96
Industrial production index	...	...	...
Gross output (in million dollars)	41	92	164
Employment (in thousands)	3	4	5
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	48	40	41
wages and salaries (%)	15	8	11
Operating surplus (%)	38	52	48
-PRODUCTIVITY: (in dollars)			
Gross output / worker	16903	27979	33382
Value added / worker	8831	16737	19555
Average wage	2483	2305	3540
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	...	...	...
in percentage of θ in 1970-1975	...	...	...
Growth rate / structural change	...	...	...
Degree of specialization	...	...	...
-VALUE ADDED: (in million dollars)			
311 Food products	12 a	44 a	72 a
313 Beverages	- a	- a	- a
314 Tobacco products	- a	- a	- a
321 Textiles	1	2	3
322 wearing apparel	1	3	5
323 Leather and fur products	...	...	1
324 Footwear	...	...	1
331 Wood and wood products	1 b	1 b	- b
332 Furniture and fixtures	- b	- b	- b
341 Paper and paper products	-	-	-
342 Printing and publishing	1	1	1
351 Industrial chemicals	2	1	3
352 Other chemical products	-	-	2
353 Petroleum refineries	-	-	-
354 Misc. petroleum and coal products	-	-	-
355 Rubber products	-	-	-
356 Plastic products	-	-	-
361 Pottery, china and earthenware	-	-	-
362 Glass and glass products	-	-	-
369 Other non-metal mineral products	1	1	2
371 Iron and steel	-	-	-
372 Non-ferrous metals	-	-	-
381 Metal products	3	2	5
382 Non-electrical machinery	-	-	-
383 Electrical machinery	...	...	-
384 Transport equipment	-	-	-
385 Professional and scientific equipment	-	-	-
390 Other manufacturing industries	...	...	-

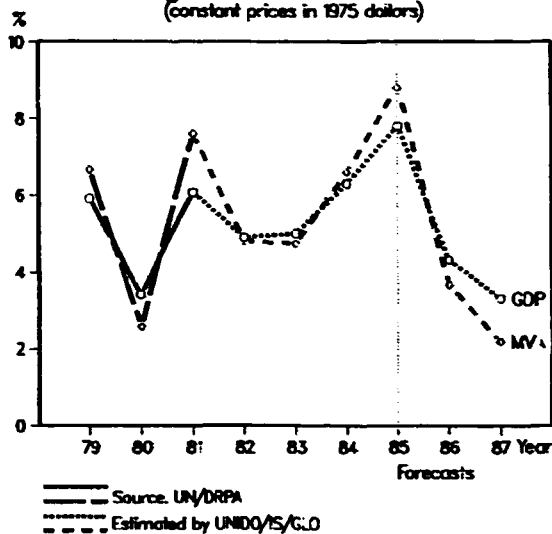
For source, footnotes and comments see "Technical notes" above.



Industrial structural change
(Index of value added: 1970=100)



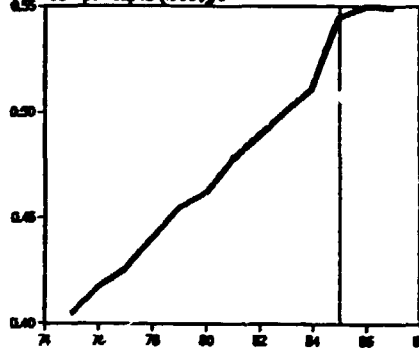
Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



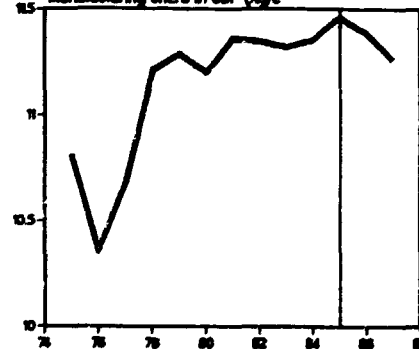
	1975	1980	1983
GDP: /na (in million dollars)	3067 /c	3926 /c	4587 /c
Per capita (in dollars)	405 /c	462 /c	501 /c
Manufacturing share /na (%)	10.8 /c	11.2 /c	11.3 /c
MANUFACTURING:			
Value added /na (in million dollars)	331 /c	440 /c	519 /c
Value added (in million dollars)	195	...	...
Industrial production index	100	144	201
Gross output (in million dollars)	509	...	...
Employment (in thousands)	29	29	30
-PROFITABILITY: (% of gross output)			
Intermediate input (%)	62	...	...
Wages and salaries (%)	15	...	...
Operating surplus (%)	24	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	17586	...	...
Value added / worker	6753	...	...
Average wage	2608	...	...
-STRUCTURAL INDICES:			
Structural change B (in degrees)	9.58	10.38	5.95
in percentage of B in 1970-1975	114	123	71
Growth rate / structural change	0.25	0.45	3.04
Degree of specialization	17.7	17.3	20.7
-VALUE ADDED: (in million dollars)			
311 Food products	16	...	...
313 Beverages	49	...	...
314 Tobacco products	21	...	...
321 Textiles	22	...	...
322 wearing apparel	6	...	...
323 Leather and fur products	2	...	...
324 Footwear	8	...	...
331 wood and wood products	2	...	...
332 Furniture and fixtures	-	...	...
341 Paper and paper products	1	...	...
342 Printing and publishing	2	...	...
351 Industrial chemicals	3	...	...
352 Other chemical products	15	...	...
353 Petroleum refineries	-	...	...
354 Misc. petroleum and coal products	-	...	...
355 Rubber products	-	...	...
356 Plastic products	4	...	...
361 Pottery, china and earthenware	2	...	...
362 Glass and glass products	2	...	...
369 Other non-metal mineral products	6	...	...
371 Iron and steel	4	...	...
372 Non-ferrous metals	9	...	...
381 Metal products	1	...	...
382 Non-electrical machinery	12	...	...
383 Electrical machinery	3	...	...
384 Transport equipment	1	...	...
385 Professional and scientific equipment	-	...	...
380 Other manufacturing industries	1	...	...

For source, footnotes and comments see "Technical notes" above.

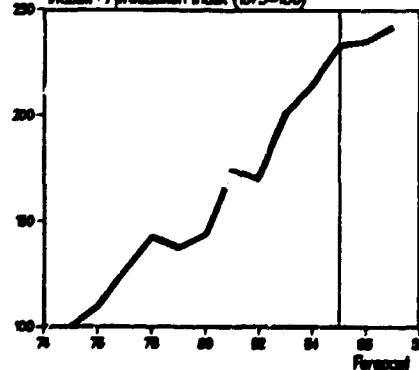
GDP per capita (1000\$/c)



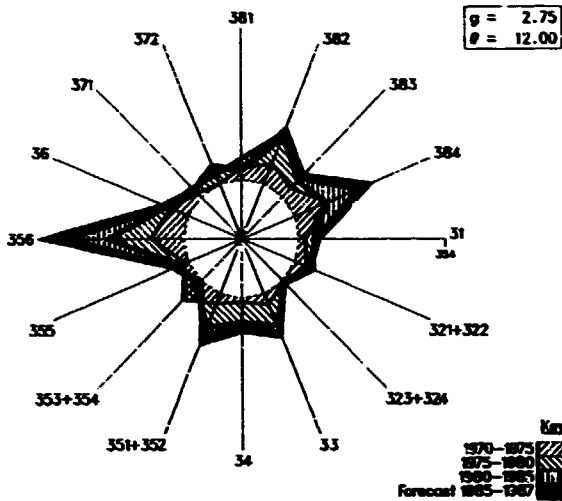
Manufacturing share in GDP (%)



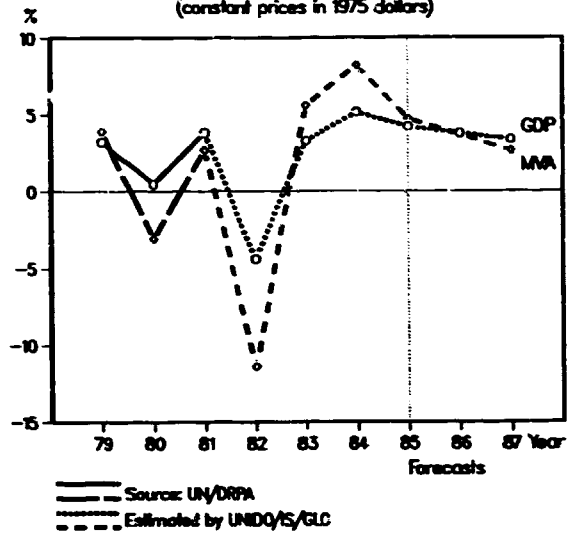
Industrial production index (1975=100)



Industrial structural change
(Index of value added: 1970=100)



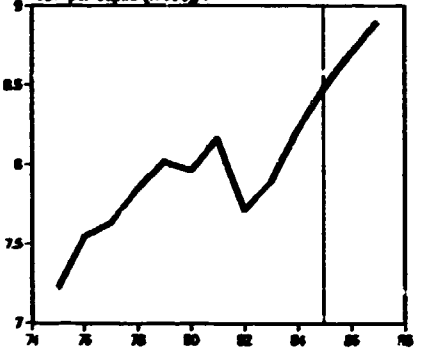
Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



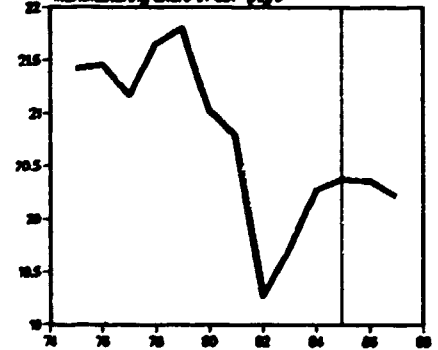
	1975	1980	1983
GDP: /na (in million dollars)	163961 /c	191411 /c	196266 /c
Per capita (in dollars)	7223 /c	7962 /c	7189 /c
Manufacturing share /na (%)	21.4 /c	21.0 /c	19.7 /c
MANUFACTURING:			
Value added /na (in million dollars)	35123 /c	40251 /c	38672 /c
Value added (in million dollars)	38043	59803	...
Industrial production index	160	118	112
Gross output (in million dollars)	101190	167211	...
Employment (in thousands)	1743	1853	1921
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	62	64	...
Wages and salaries (%)	19	17	...
Operating surplus (%)	19	19	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	58055	90238	...
Value added / worker	21826	32274	...
Average wage	10806	15296	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	5.11	4.95	4.34
in percentage of θ in 1970-1975	162	157	138
Growth rate / structural change	-1.31	-0.44	1.48
Degree of specialization	10.4	10.5	11.0
-VALUE ADDED: (in million dollars)			
311 Food products	4061	6142	...
312 Beverages	1200	1660	...
314 Tobacco products	364	479	...
321 Textiles	1436	2130	...
322 Wearing apparel	1121	1694	...
323 Leather and fur products	108	154	...
324 Footwear	197	295	...
331 Wood and wood products	1662	2968	...
332 Furniture and fixtures	708	1044	...
341 Paper and paper products	3263	5714	...
342 Printing and publishing	1868	3054	...
351 Industrial chemicals	1121	2164	...
352 Other chemical products	1495	2421	...
353 Petroleum refineries	806	1531	...
354 Misc. petroleum and coal products	98	111	...
355 Rubber products	560	873	...
356 Plastic products	452	873	...
361 Pottery, china and earthenware	39	43	...
362 Glass and glass products	256	385	...
369 Other non-metal mineral products	1186	1487	...
371 Iron and steel	1740	2652	...
372 Non-ferrous metals	1160	2190	...
381 Metal products	3029	4414	...
382 Non-electrical machinery	2212	3952	...
383 Electrical machinery	2645	3648	...
384 Transport equipment	4140	5911	...
385 Professional and scientific equipment	403	667	...
389 Other manufacturing industries	600	822	...

For source, footnotes and comments see "Technical notes" above.

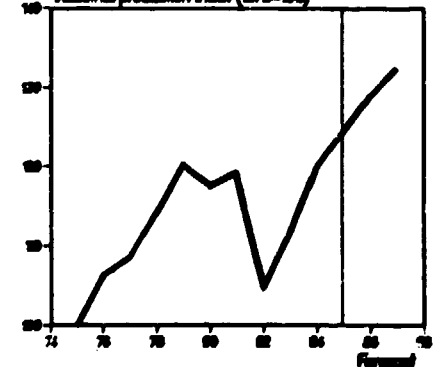
GDP per capita (1000\$/c)



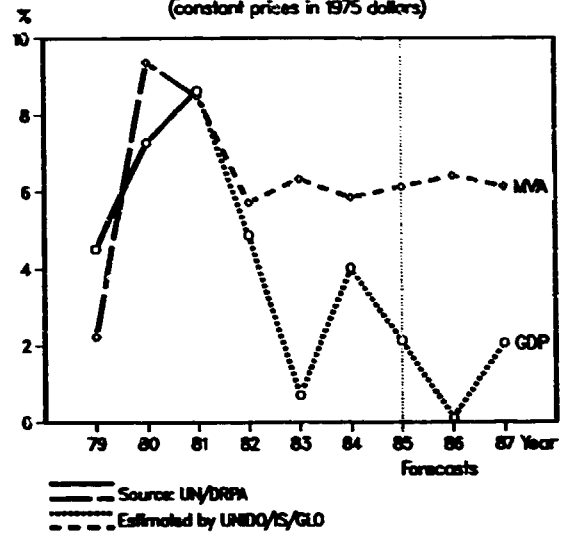
Manufacturing share in GDP (%)



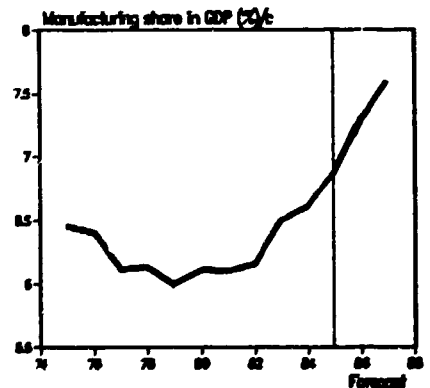
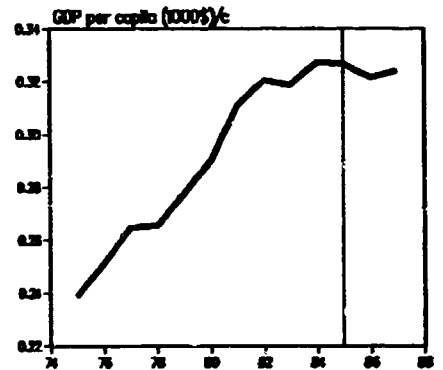
Industrial production index (1975=100)



Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

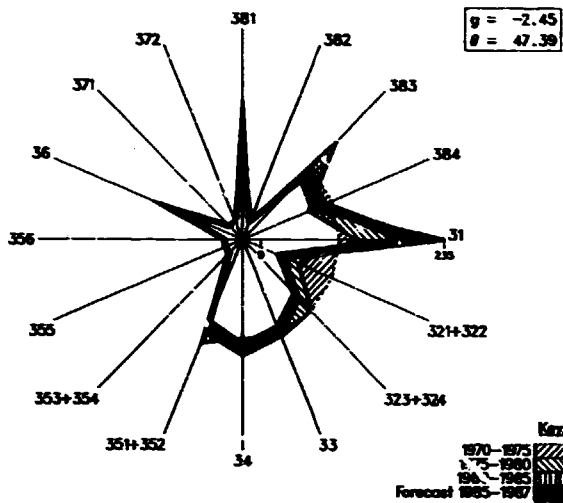


	1975	1980	1983
GDP: /na (in million dollars)	71 /c	87 /c	100 /c
Per capita (in dollars)	239 /c	290 /c	319 /c
Manufacturing share /na (%)	6.5 /c	6.1 /c	6.5 /c
MANUFACTURING:			
Value added /na (in million dollars)	5 /c	5 /c	6 /c
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery/
384 Transport equipment
385 Professional and scientific equipment
389 Other manufacturing industries

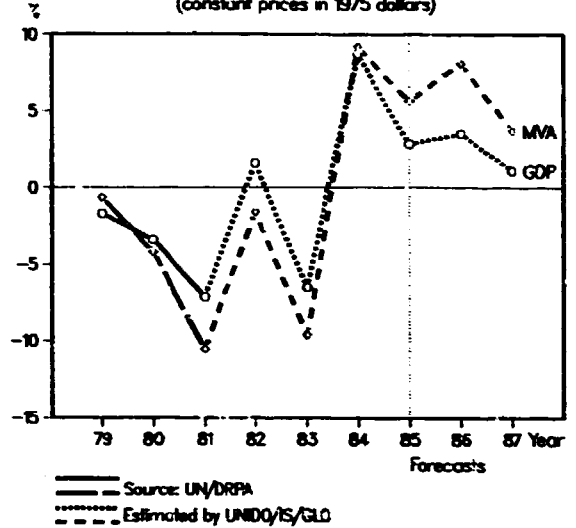


For source, footnotes and comments see "Technical notes" above.

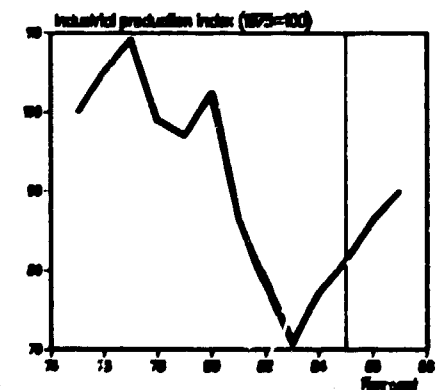
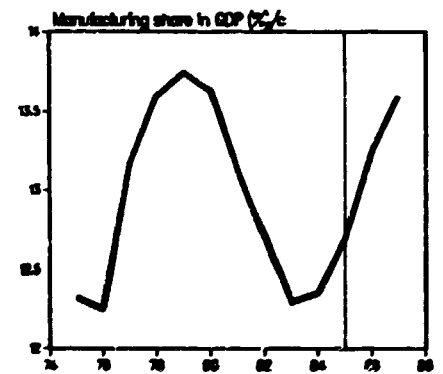
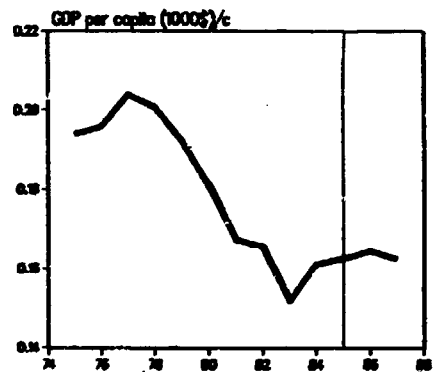
Industrial structural change
(Index of value added: 1970=100)



Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

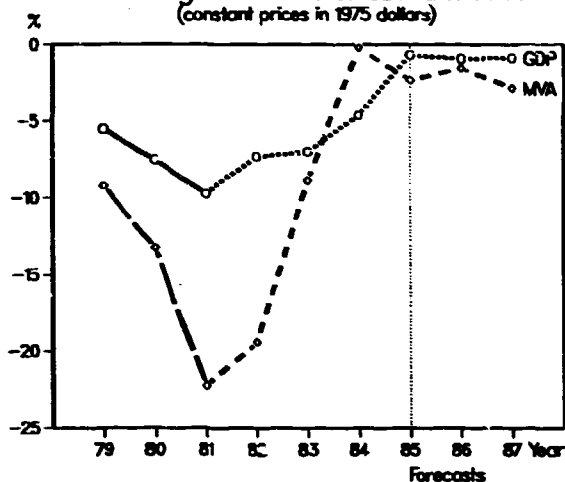


	1975	1980	1983
GDP: /na (in million dollars)	398 /c	423 /c	373 /c
Per capita (in dollars)	194 /c	182 /c	152 /c
Manufacturing share /na (%)	12.3 /c	13.6 /c	12.3 /c
MANUFACTURING:			
Value added /na (in million dollars)	49 /c	58 /c	46 /c
Value added (in million dollars)	26	30	...
Industrial production index	100	102	71
Gross output (in million dollars)	61	69	...
Employment (in thousands)	6	5	5
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	58	56	...
Wages and salaries (%)	12	17	...
Operating surplus (%)	31	27	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	10967	13376	...
Value added / worker	4644	5884	...
Average wage	1280	2281	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	4.17	8.95	1.37
in percentage of θ in 1970-1975	88	201	32
Growth rate / structural change	-2.84	0.65	-7.18
Degree of specialization	30.4	29.0	26.9
-VALUE ADDED: (in million dollars)			
311 Food products	5	4	...
313 Beverages	2	2	...
314 Tobacco products	4	3	...
321 Textiles	10	13	...
322 Wearing apparel	1	2	...
323 Leather and fur products	-	-	...
324 Footwear	-	-	...
331 Wood and wood products	-	-	...
332 Furniture and fixtures	-	-	...
341 Paper and paper products	-	-	...
342 Printing and publishing	-	1	...
351 Industrial chemicals	-	1	...
352 Other chemical products	1	2	...
353 Petroleum refineries	-	-	...
354 Misc. petroleum and coal products	-	-	...
355 Rubber products	-	-	...
356 Plastic products	-	-	...
361 Pottery, china and earthenware	-	-	...
362 Glass and glass products	-	-	...
369 Other non-metal mineral products	...	-	...
371 Iron and steel	-	-	...
372 Non-ferrous metals	-	-	...
381 Metal products	1 b	3 b	...
382 Non-electrical machinery	- b	- b	...
383 Electrical machinery	- b	- b	...
384 Transport equipment	- b	- b	...
385 Professional and scientific equipment	-	-	...
389 Other manufacturing industries	-	-	...



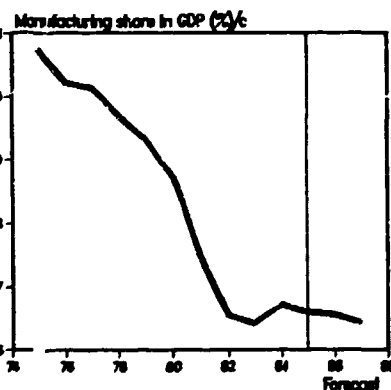
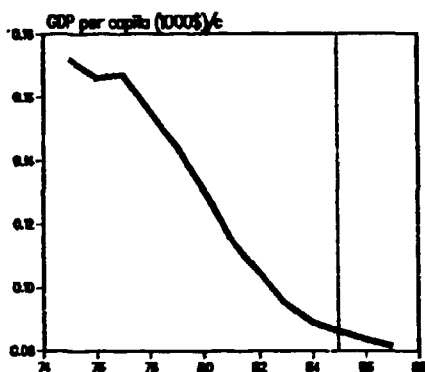
For sources, footnotes and comments see "Technical notes" above.

Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



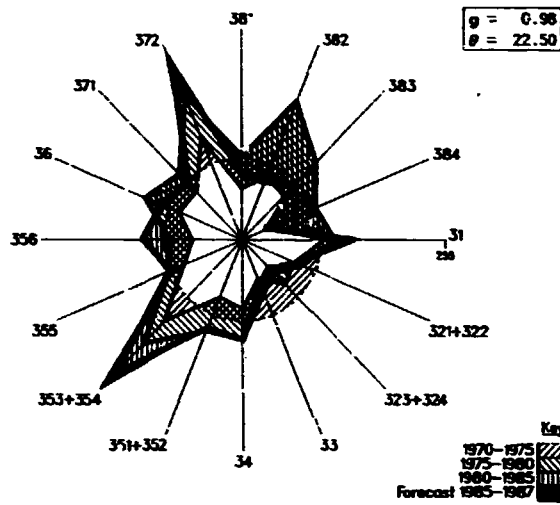
Source: UN/DRPA
Estimated by UNDO/IS/GLO

	1975	1980	1983
GDP: /na (in million dollars)	693 /c	586 /c	456 /c
Per capita (in dollars)	172 /c	131 /c	95 /c
Manufacturing share /na (%)	10.8 /c	6.7 /c	6.4 /c
MANUFACTURING:			
Value added /na (in million dollars)	75 /c	51 /c	29 /c
Value added (in million dollars)	77	...	...
Industrial production index	...	...	...
Gross output (in million dollars)	181	...	...
Employment (in thousands)	...	...	...
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	...	...	...
Wages and salaries (%)	...	...	...
Operating surplus (%)	...	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	...	...	...
Value added / worker	...	...	...
Average wage	...	...	...
-STRUCTURAL INDICES:			
Structural change B (in degrees)	...	...	...
in percentage of B in 1970-1975	...	...	...
Growth rate / structural change	...	...	...
Degree of specialization	...	...	...
-VALUE ADDED: (in million dollars)			
311 Food products	24	...	...
313 Beverages	9	...	...
314 Tobacco products	2	...	...
321 Textiles	31 a	...	...
322 Wearing apparel	- a	...	...
323 Leather and fur products	- a	...	...
324 Footwear	- a	...	...
331 Wood and wood products	2 b	...	...
332 Furniture and fixtures	- b	...	...
341 Paper and paper products	-	...	...
342 Printing and publishing	1	...	...
351 Industrial chemicals	- c	...	...
352 Other chemical products	- c	...	...
353 Petroleum refineries	- c	...	...
354 Misc. petroleum and coal products	- c	...	...
355 Rubber products	- c	...	...
356 Plastic products	- c	...	...
361 Pottery, china and earthenware	-	...	...
362 Glass and glass products	-	...	...
369 Other non-metal mineral products	4	...	...
371 Iron and steel	4 d	...	...
372 Non-ferrous metals	- d	...	...
381 Metal products	- d	...	...
382 Non-electrical machinery	- d	...	...
383 Electrical machinery	- d	...	...
384 Transport equipment	- d	...	...
385 Professional and scientific equipment	- d	...	...
389 Other manufacturing industries	- d	...	...

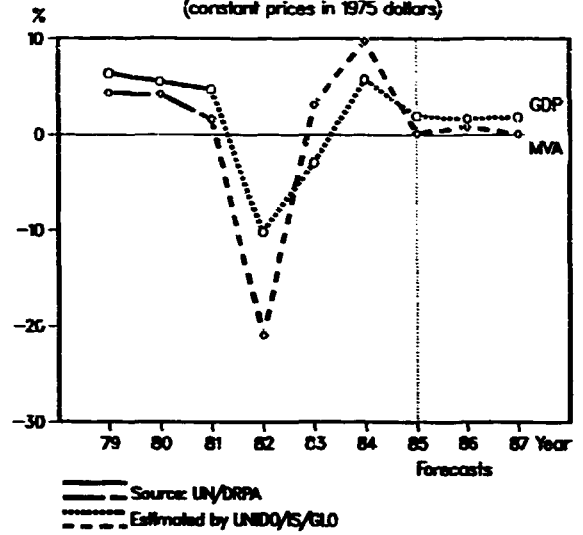


For source, footnotes and comments see "Technical notes" above.

Industrial structural change (Index of value added: 1970=100)

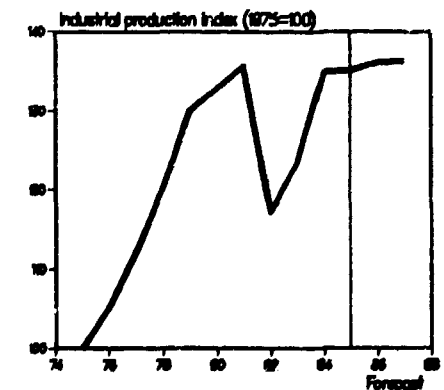
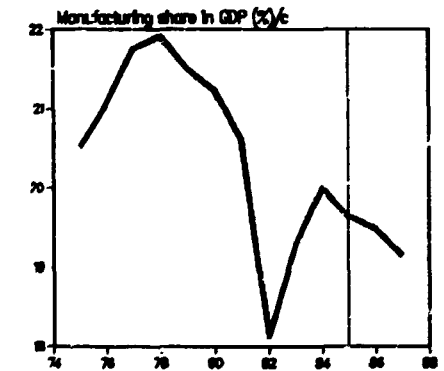
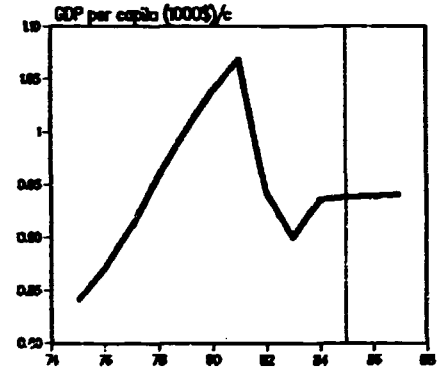


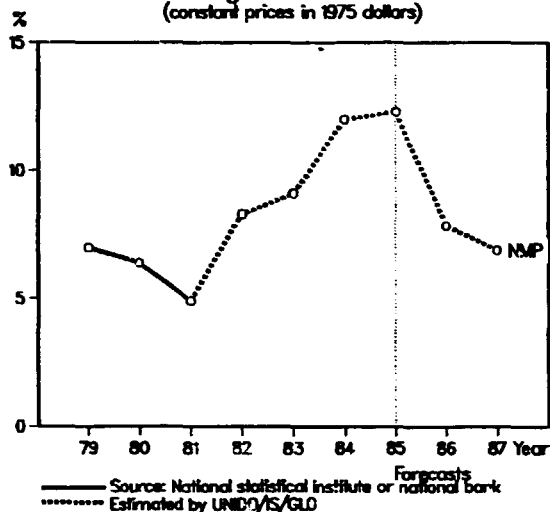
Annual growth rates of GDP and MVA (constant prices in 1975 dollars)



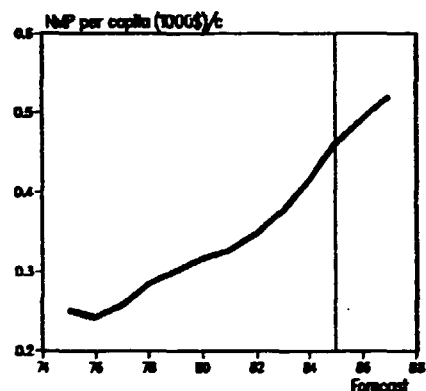
	1975	1980	1983
GDP: /na (in million dollars)	8571 /c	11522 /c	10513 /c
Per capita (in dollars)	840 /c	1038 /c	900 /c
Manufacturing share /na (%)	20.5 /c	21.2 /c	15.3 /c
MANUFACTURING:			
Value added /na (in million dollars)	1759 /c	2447 /c	2025 /c
Value added (in million dollars)	2944	6492	...
Industrial production index	100	133	123
Gross output (in million dollars)	4927	14038	...
Employment (in thousands)	236	206	164
-PROFITABILITY: (in percent of gross output):			
Intermediate input (%)	40	54	...
wages and salaries (%)	7	9	...
Operating surplus (%)	52	38	...
-PRODUCTIVITY: (in dollars):			
Gross output / worker	20897	67995	...
Value added / worker	12488	31451	...
Average wage	1532	5782	...
-STRUCTURAL INDICES:			
Structural change theta (in degrees)	9.54	5.52	2.83
in percentage of theta in 1970-1975	135	78	40
Growth rate / structural change	-2.24	0.40	1.84
Degree of specialization	18.0	15.9	20.6
-VALUE ADDED: (in million dollars)			
311 Food products	443	1076	...
313 Beverages	110	376	...
314 Tobacco products	85	278	...
321 Textiles	156	304	...
322 Wearing apparel	30	145	...
323 Leather and fur products	19	29	...
324 Footwear	41	100	...
331 Wood and wood products	47	199	...
332 Furniture and fixtures	11	48	...
341 Paper and paper products	109	366	...
342 Printing and publishing	61	237	...
351 Industrial chemicals	88	71	...
352 Other chemical products	149	422	...
353 Petroleum refineries	271	239	...
354 Misc. petroleum and coal products	12	25	...
355 Rubber products	26	78	...
356 Plastic products	22	65	...
361 Pottery, china and earthenware	16	19	...
362 Glass and glass products	14	50	...
369 Other non-metal mineral products	52	180	...
371 Iron and steel	176	244	...
372 Non-ferrous metals	552	1255	...
381 Metal products	104	235	...
382 Non-electrical machinery	84	125	...
383 Electrical machinery	130	117	...
384 Transport equipment	118	165	...
285 Professional and scientific equipment	3	6	...
280 Other manufacturing industries	11	12	...

For source, footnotes and comments see "Technical notes" above.



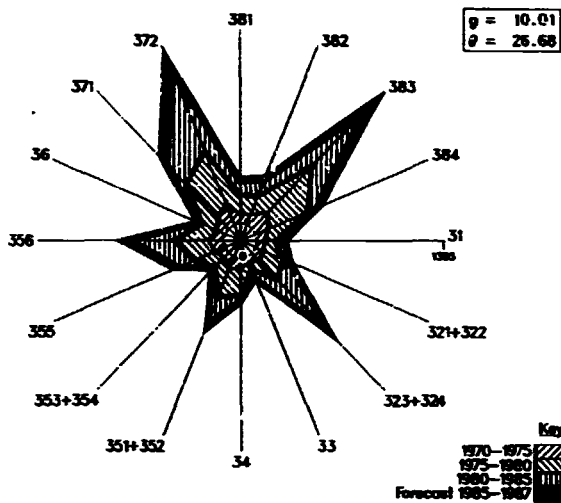
Annual growth rate of NMP
(constant prices in 1975 dollars)

	1975	1980	1983
NMP: /na (in million dollars)	234570 /c	314569 /c	389872 /c
Per capita (in dollars)	251 /c	316 /c	375 /c
Manufacturing share /na (%)
MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)	...	320697	279256
Employment (in thousands)	...	30678	33982
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change B (in degrees)
in percentage of B in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
224 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
262 Glass and glass products
369 Other non-metal mineral products
271 Iron and steel
272 Non-ferrous metals
381 Metal products
282 Non-electrical machinery
283 Electrical machinery
284 Transport equipment
285 Professional and scientific equipment
290 Other manufacturing industries

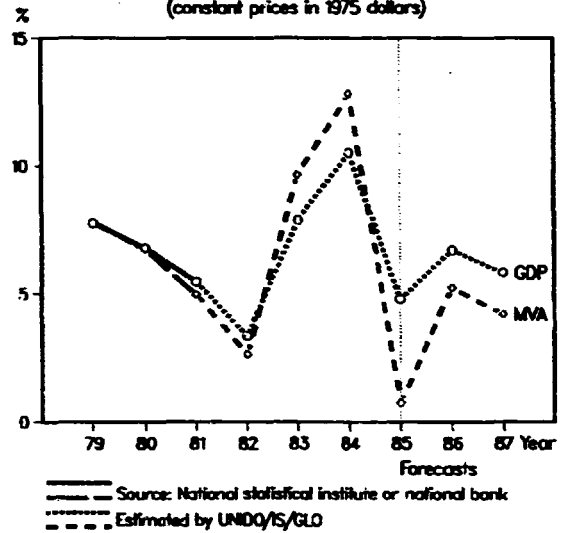


For source, footnotes and comments see "Technical notes" above.

Industrial structural change
(Index of value added: 1970=100)

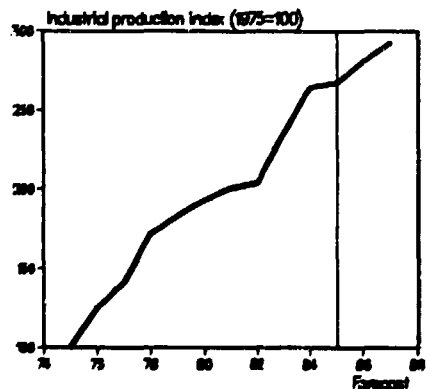
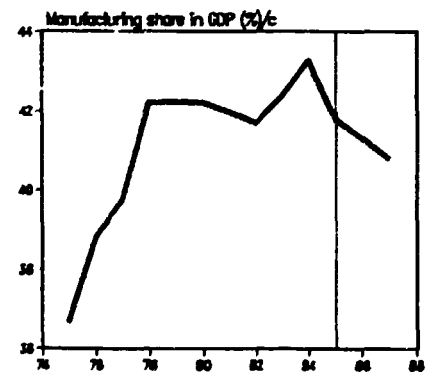
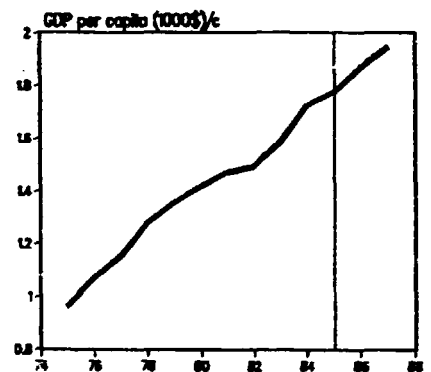


Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

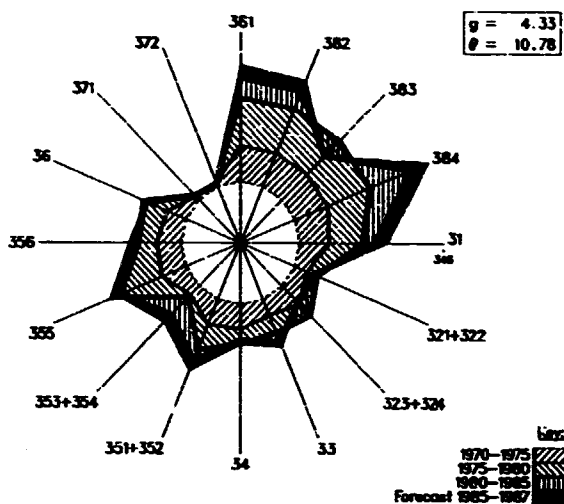


	1975	1980	1983
GDP: /na (in million dollars)	15381 /c	25049 /c	29466 /c
Per capita (in dollars)	961 /c	1420 /c	1585 /c
Manufacturing share /na (%)	36.7 /c	42.2 /c	42.4 /c
MANUFACTURING:			
Value added /na (in million dollars)	5640 /c	10569 /c	12490 /c
Value added (in million dollars)
Industrial production index	100	193	235
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	1.87	3.85	7.07
in percentage of θ in 1970-1975	111	229	421
Growth rate / structural change	3.80	1.47	2.09
Degree of specialization	12.7	12.6	12.5
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
390 Other manufacturing industries

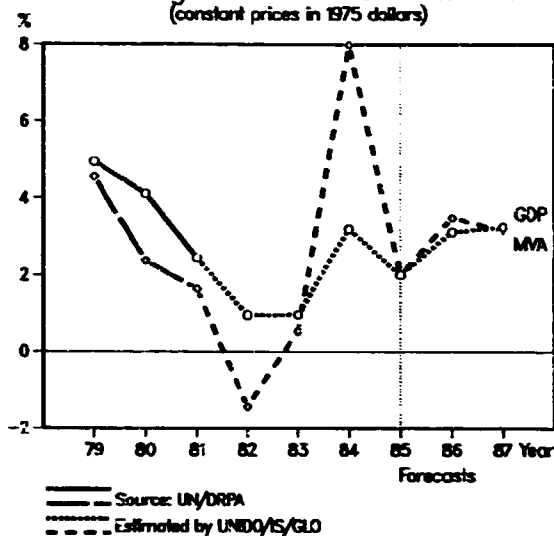
For source, footnotes and comments see "Technical notes" above.



Industrial structural change
(Index of value added: 1970=100)

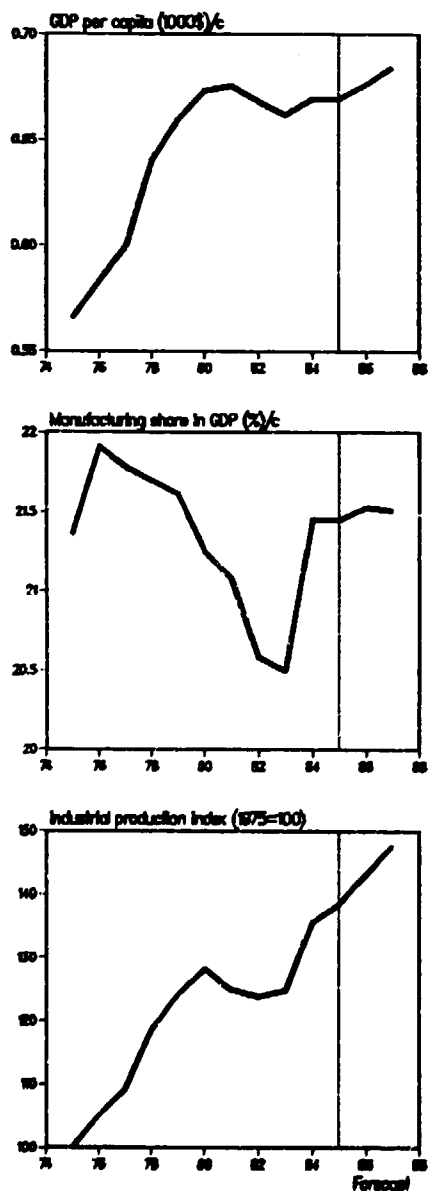


Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

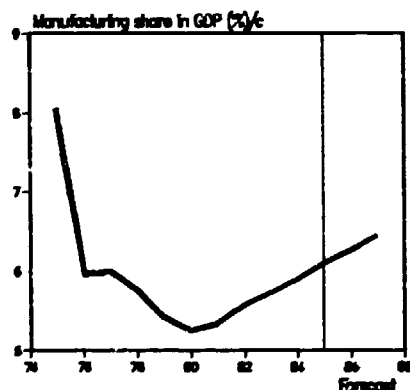
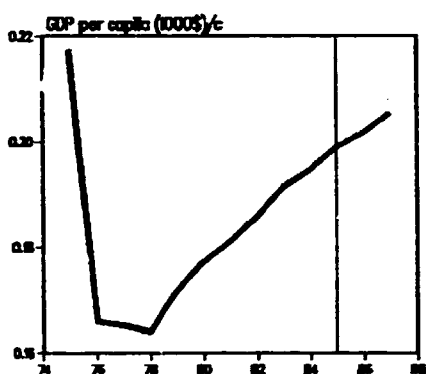


	1975	1980	1983
GDP: /na (in million dollars)	13367 /c	17429 /c	18196 /c
Per capita (in dollars)	565 /c	673 /c	662 /c
Manufacturing share /na (%)	21.4 /c	21.2 /c	20.5 /c
MANUFACTURING:			
Value added /na (in million dollars)	2855 /c	3704 /c	3730 /c
Value added (in million dollars)	2650	7141	...
Industrial production index	100	128	125
Gross output (in million dollars)	6561	16476	...
Employment (in thousands)	450	508	504
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	60	57	...
Wages and salaries (%)	8	8	...
Operating surplus (%)	32	35	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	14571	32420	...
Value added / worker	5885	14051	...
Average wage	1214	2586	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	5.75	1.89	2.80
in percentage of θ in 1970-1975	186	61	90
Growth rate / structural change	0.40	1.72	0.25
Degree of specialization	19.3	19.9	19.7
-VALUE ADDED: (in million dollars)			
311 Food products	394	952	...
313 Beverages	329	1022	...
314 Tobacco products	70	160	...
221 Textiles	329	804	...
322 Wearing apparel	77	241	...
323 Leather and fur products	21	59	...
324 Footwear	17	50	...
331 Wood and wood products	30	50	...
332 Furniture and fixtures	14	35	...
341 Paper and paper products	84	228	...
342 Printing and publishing	71	185	...
351 Industrial chemicals	148	304	...
352 Other chemical products	189	418	...
353 Petroleum refineries	126	774	...
354 Misc. petroleum and coal products	4	17	...
355 Rubber products	53	117	...
356 Plastic products	36	141	...
261 Pottery, china and earthenware	14	44	...
362 Glass and glass products	28	77	...
369 Other non-metal mineral products	103	232	...
371 Iron and steel	76	218	...
372 Non-ferrous metals	11	34	...
381 Metal products	119	260	...
382 Non-electrical machinery	60	120	...
383 Electrical machinery	63	244	...
384 Transport equipment	147	256	...
385 Professional and scientific equipment	10	27	...
380 Other manufacturing industries	25	72	...

For source, footnotes and comments see "Technical notes" above.

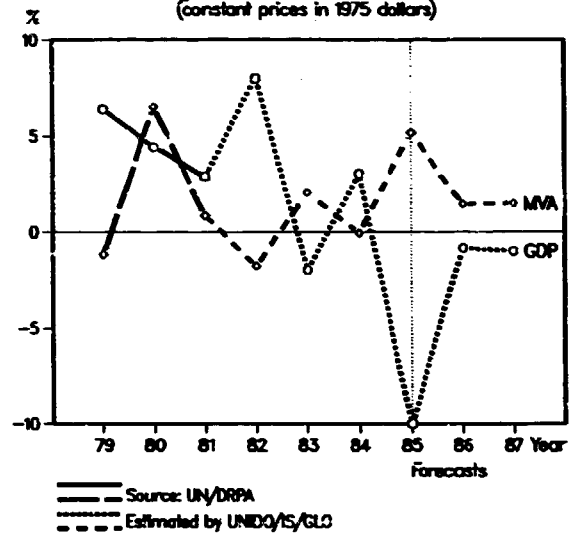


	1975	1980	1983
GDP: /na (in million dollars)	70 /c	70 /c	81 /c
Per capita (in dollars)	217 /c	177 /c	191 /c
Manufacturing share /na (%)	8.1 /c	5.2 /c	5.7 /c
MANUFACTURING:			
Value added /na (in million dollars)	6 /c	4 /c	5 /c
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
390 Other manufacturing industries

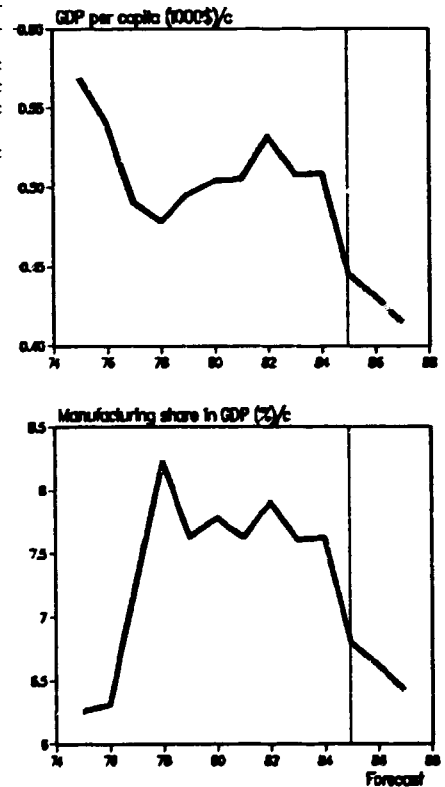


For source, footnotes and comments see "Technical notes" above.

Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

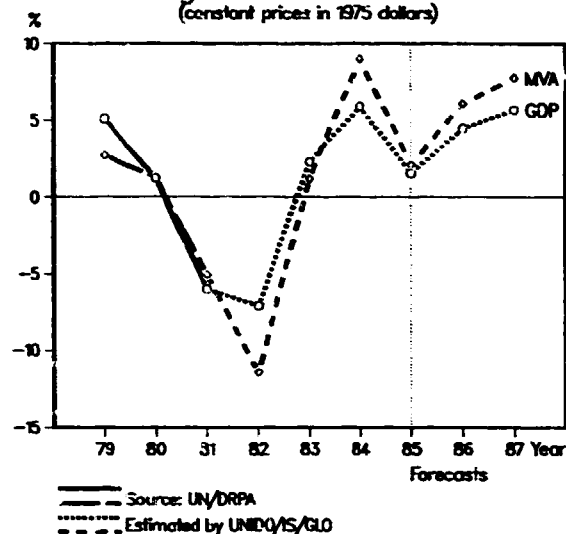


	1975	1980	1983
GDP: /na (in million dollars)	767 /c	771 /c	839 /c
Per capita (in dollars)	568 /c	504 /c	508 /c
Manufacturing share /na (%)	6.3 /c	7.8 /c	7.6 /c
MANUFACTURING:			
Value added /na (in million dollars)	48 /c	60 /c	64 /c
Value added (in million dollars)	44	...	...
Industrial production index	...	...	...
Gross output (in million dollars)	105	...	...
Employment (in thousands)	...	...	...
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	...	...	...
Wages and salaries (%)	...	...	...
Operating surplus (%)	...	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	...	...	...
Value added / worker	...	...	...
Average wage	...	...	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	...	...	...
in percentage of θ in 1970-1975	...	...	...
Growth rate / structural change	...	...	...
Degree of specialization	...	...	...
-VALUE ADDED: (in million dollars)			
311 Food products	8	...	...
313 Beverages	12 a	...	...
314 Tobacco products	- a	...	...
321 Textiles	5 b	...	...
322 Wearing apparel	- b	...	...
323 Leather and fur products	- b	...	...
324 Footwear	- b	...	...
331 Wood and wood products	8 c	...	...
332 Furniture and fixtures	- c	...	...
341 Paper and paper products	1 h	...	...
342 Printing and publishing	- h	...	...
351 Industrial chemicals	4 d	...	...
352 Other chemical products	- d	...	...
353 Petroleum refineries	-	...	...
354 Misc. petroleum and coal products	-	...	...
355 Rubber products	-	...	...
356 Plastic products	- j	...	...
361 Pottery, china and earthenware	1 e	...	...
362 Glass and glass products	- e	...	...
369 Other non-metal mineral products	3 e	...	...
371 Iron and steel	- i	...	...
372 Non-ferrous metals	- i	...	...
381 Metal products	- j	...	...
382 Non-electrical machinery	- j	...	...
383 Electrical machinery	- i	...	...
384 Transport equipment	- i	...	...
385 Professional and scientific equipment	-	...	...
389 Other manufacturing industries	1 i	...	...

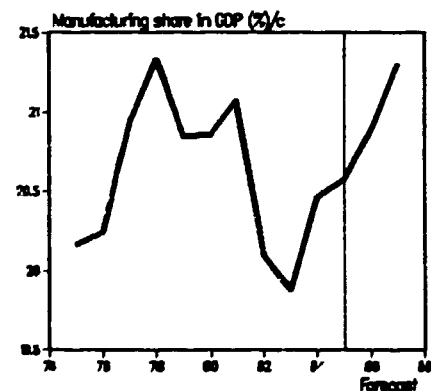
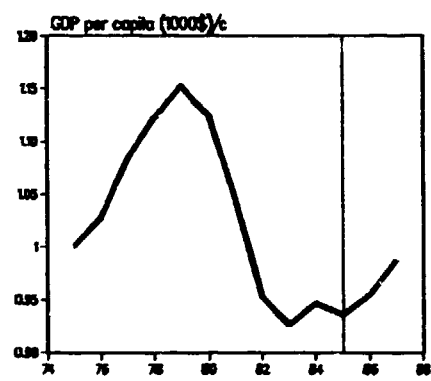


For source, footnotes and comments see "Technical notes" above.

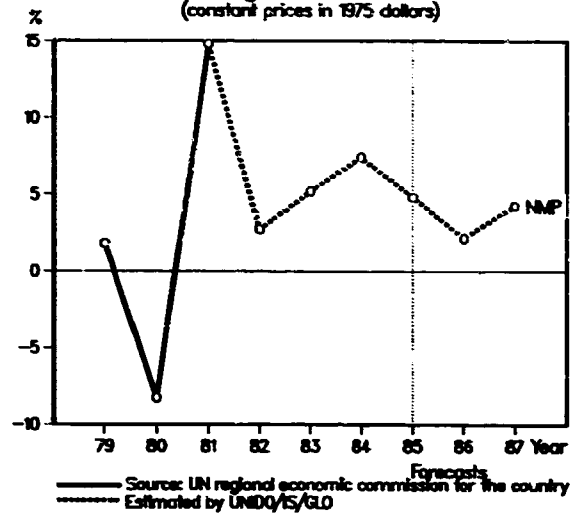
Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



	1975	1980	1983
GDP: /na (in million dollars)	1961 /c	2531 /c	2261 /c
Per capita (in dollars)	1000 /c	1125 /c	927 /c
Manufacturing share /na (%)	20.2 /c	20.9 /c	19.9 /c
MANUFACTURING:			
Value added /na (in million dollars)	395 /c	528 /c	449 /c
Value added (in million dollars)	358	834	...
Industrial production index	...	...	...
Gross output (in million dollars)	1165	2835	...
Employment (in thousands)	...	...	...
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	...	...	...
Wages and salaries (%)	...	...	...
Operating surplus (%)	...	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	...	...	...
Value added / worker	...	...	...
Average wage	...	...	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	...	...	...
in percentage of θ in 1970-1975	...	...	...
Growth rate / structural change	...	...	...
Degree of specialization	...	...	...
-VALUE ADDED: (in million dollars)			
311 Food products	105	249	...
313 Beverages	41	97	...
314 Tobacco products	14	29	...
321 Textiles	21	35	...
322 Wearing apparel	14	27	...
323 Leather and fur products	3	6	...
324 Footwear	4	9	...
331 Wood and wood products	24	29	...
332 Furniture and fixtures	10	33	...
341 Paper and paper products	7	21	...
342 Printing and publishing	7	20	...
351 Industrial chemicals	14	21	...
352 Other chemical products	17	48	...
353 Petroleum refineries	14	54	...
354 Misc. petroleum and coal products	-	-	...
355 Rubber products	8	18	...
356 Plastic products	9	20	...
361 Pottery, china and earthenware	1	1	...
362 Glass and glass products	1	4	...
369 Other non-metal mineral products	12	27	...
371 Iron and steel	1	2	...
372 Non-ferrous metals	-	1	...
381 Metal products	9	19	...
382 Non-electrical machinery	4	9	...
383 Electrical machinery	7	22	...
384 Transport equipment	11	33	...
385 Professional and scientific equipment	-	-	...
389 Other manufacturing industries	2	2	...

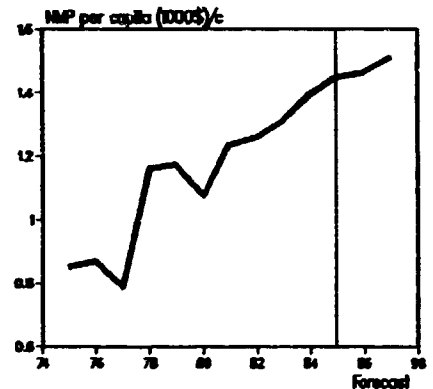


For source, footnotes and comments see "Technical notes" above.

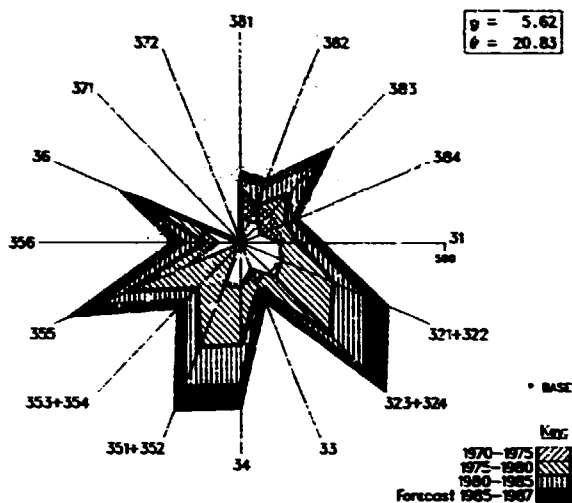
Annual growth rate of NMP
(constant prices in 1975 dollars)

	1975	1980	1983
NMP: /na (in million dollars)	7907 /c	10465 /c	12980 /c
Per capita (in dollars)	851 /c	1077 /c	1311 /c
Manufacturing share /na (%)
MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)	4366
Industrial production index
Gross output (in million dollars)	5560	10237	10653
Employment (in thousands)	...	501	580
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	59
wages and salaries (%)	14
Operating surplus (%)	27
-PRODUCTIVITY: (in dollars)			
Gross output / worker	18354
Value added / worker	7526
Average wage	2563
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products	678
313 Beverages	235
314 Tobacco products	1721
321 Textiles	41
322 Wearing apparel	84
323 Leather and fur products	103 a
324 Footwear	- a
331 Wood and wood products	49
332 Furniture and fixtures	40
341 Paper and paper products	43
342 Printing and publishing	51
351 Industrial chemicals	35 b
352 Other chemical products	- b
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products	- b
356 Plastic products	- b
361 Pottery, china and earthenware	6 c
362 Glass and glass products	- c
369 Other non-metal mineral products	124
371 Iron and steel	48
372 Non-ferrous metals	54
381 Metal products	97
382 Non-electrical machinery	439 d
383 Electrical machinery	61
384 Transport equipment	- d
385 Professional and scientific equipment	- d
389 Other manufacturing industries	164

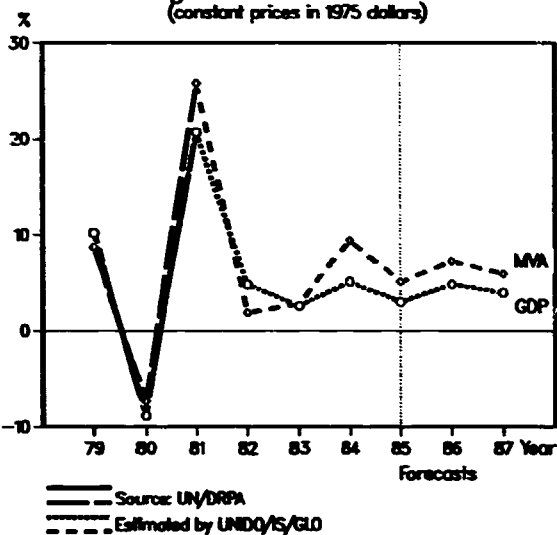
For source, footnotes and comments see "Technical notes" above.



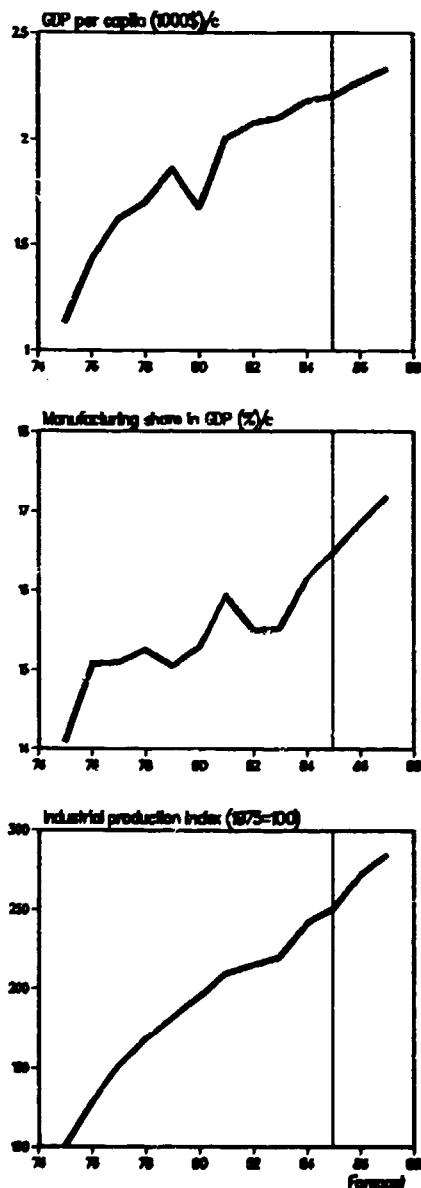
Industrial structural change
(Index of value added: 1970=100)



Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

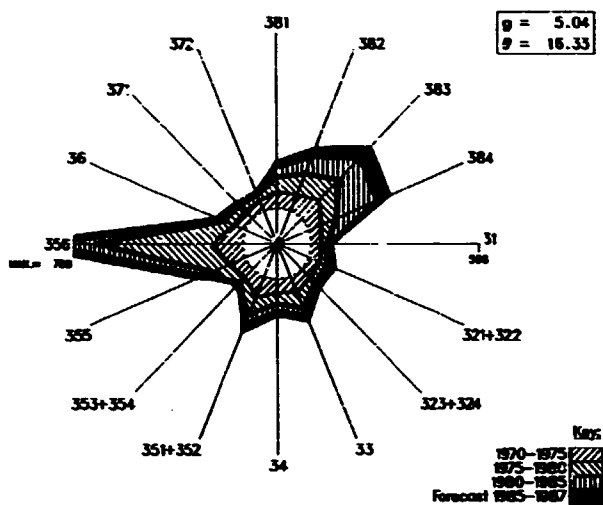


	1975	1980	1983
GDP: /na (in million dollars)	698 /c	1050 /c	1362 /c
Per capita (in dollars)	1130 /c	1674 /c	2099 /c
Manufacturing share /na (%)	14.1 /c	15.3 /c	15.5 /c
MANUFACTURING:			
Value added /na (in million dollars)	98 /c	161 /c	211 /c
Value added (in million dollars)	99	374	358
Industrial production index	100	195	220
Gross output (in million dollars)	284	1102	1061
Employment (in thousands)	18	34	36
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	65	66	66
wages and salaries (%)	13	14	16
Operating surplus (%)	22	20	18
-PRODUCTIVITY: (in dollars)			
Gross output / worker	15551	32387	29157
Value added / worker	5399	10984	9850
Average wage	1953	4479	4551
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	13.93	2.27	2.80
in percentage of θ in 1970-1975	206	34	41
Growth rate / structural change	-0.67	3.38	0.84
Degree of specialization	12.8	12.2	11.4
-VALUE ADDED: (in million dollars)			
311 Food products	15	42	46
313 Beverages	13	28	25
314 Tobacco products	3	13	11
321 Textiles	5	16	16
322 Wearing apparel	10	53	54
323 Leather and fur products	1	5	5
324 Footwear	5	21	21
331 Wood and wood products	4	19	21
332 Furniture and fixtures	4	17	21
341 Paper and paper products	1	11	7
342 Printing and publishing	5	15	15
351 Industrial chemicals	-	3	7
352 Other chemical products	3	11	13
353 Petroleum refineries	5	6	5
354 Misc. petroleum and coal products	-	-	-
355 Rubber products	1	3	1
356 Plastic products	1	11	12
361 Pottery, china and earthenware	-	-	-
362 Glass and glass products	-	-	-
363 Other non-metal mineral products	12	44	26
371 Iron and steel	-	-	-
372 Non-ferrous metals	-	-	-
381 Metal products	5	23	24
382 Non-electrical machinery	2	11	12
383 Electrical machinery	-	5	6
384 Transport equipment	1	8	4
385 Professional and scientific equipment	-	-	-
386 Other manufacturing industries	2	2	5

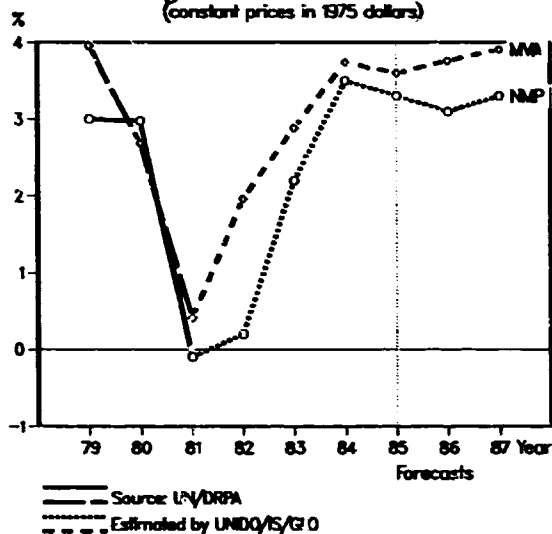


For source, footnotes and comments see "Technical notes" above.

Industrial structural change
(Index of value added: 1970=100)

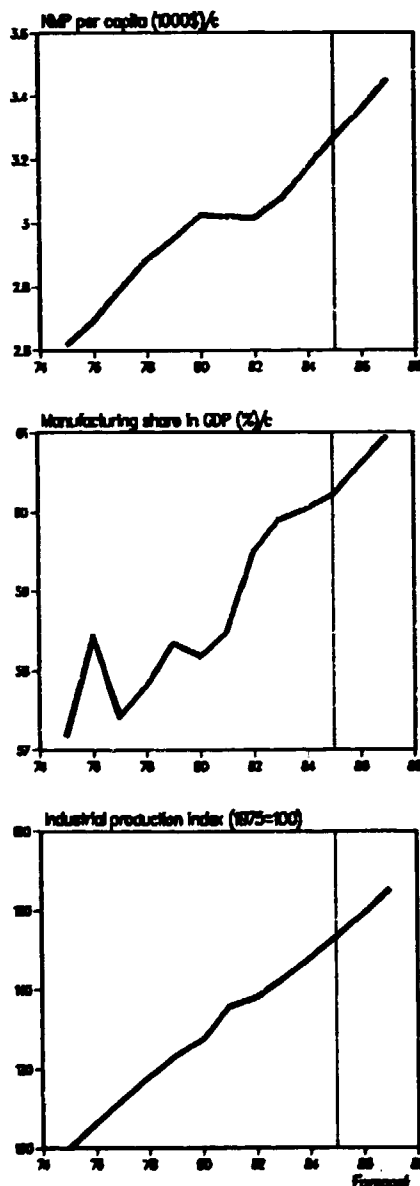


Annual growth rates of NMP and MVA
(constant prices in 1975 dollars)

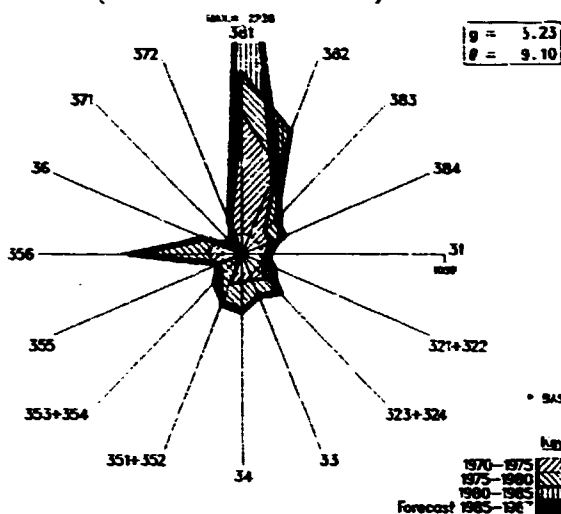


	1975	1980	1983
NMP: /na (in million dollars)	38748 /c	46319 /c	47387 /c
Per capita (in dollars)	2618 /c	3025 /c	3074 /c
Manufacturing share /na (%)	57.2 /c	58.2 /c	59.8 /c
MANUFACTURING:			
Value added /na (in million dollars)	22152 /c	26948 /c	28385 /c
Value added (in million dollars)	13491	22411	16336
Industrial production index	100	128	143
Gross output (in million dollars)	40732	53984	53163
Employment (in thousands)	2457	2518	2567
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	67	56	69
Wages and salaries (%)	14	13	13
Operating surplus (%)	19	26	18
-PRODUCTIVITY: (in dollars)			
Gross output / worker	16578	21439	20710
Value added / worker	5491	8900	6364
Average wage	2334	2889	2633
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	1.06	0.70	1.11
in percentage of θ in 1970-1975	94	62	98
Growth rate / structural change	6.82	5.05	2.93
Degree of specialization	15.3	16.0	17.3
-VALUE ADDED: (in million dollars)			
311 Food products	824	1639	1062
313 Beverages	189	371	279
314 Tobacco products	36	43	33
321 Textiles	889	1433	1095
322 Wearing apparel	258	353	311
323 Leather and fur products	89	122	93
324 Footwear	280	390	311
331 Wood and wood products	322	505	364
332 Furniture and fixtures	183	273	212
341 Paper and paper products	232	509	329
342 Printing and publishing	124	177	131
351 Industrial chemicals	830	1644	1107
352 Other chemical products	208	232	185
353 Petroleum refineries	258	648	504
354 Misc. petroleum and coal products	29	156	97
355 Rubber products	196	279	220
356 Plastic products	...	85	48
361 Pottery, china and earthenware	36	59	52
362 Glass and glass products	316	550	343
369 Other non-metal mineral products	503	1007	626
371 Iron and steel	1614	2285	1267
372 Non-ferrous metals	305	426	269
381 Metal products	476	1033	788
382 Non-electrical machinery	2721	4409	3555
383 Electrical machinery	802	1112	979
384 Transport equipment	1102	2186	1759
385 Professional and scientific equipment	507	122	97
389 Other manufacturing industries	181	281	212

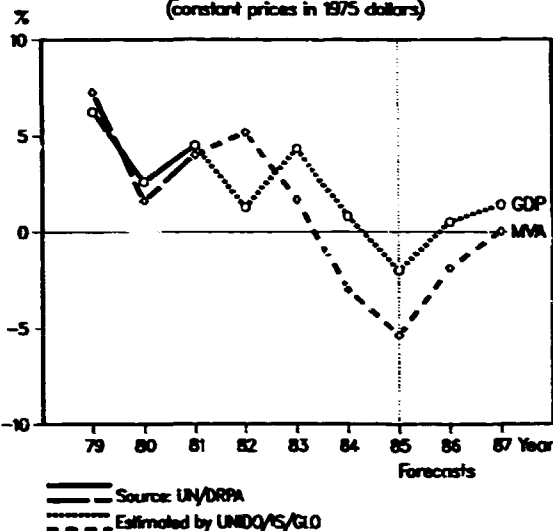
For source, footnotes and comments see "Technical notes" above.



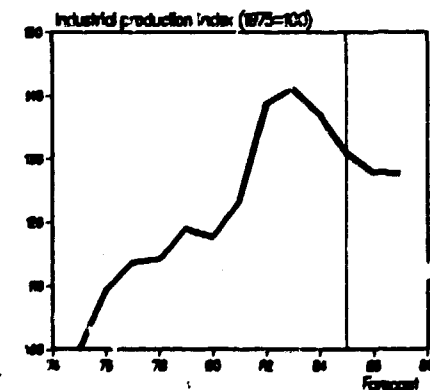
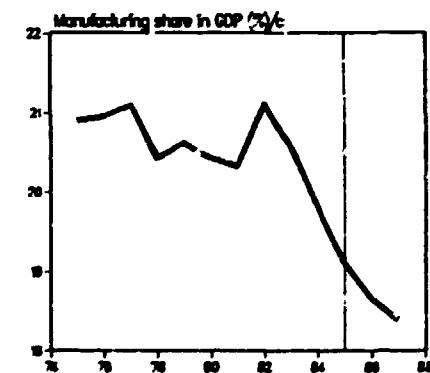
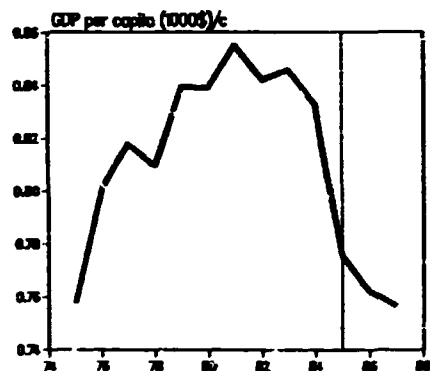
Industrial structural change (Index of value added: 1970=100)



Annual growth rates of GDP and MVA (constant prices in 1975 dollars)

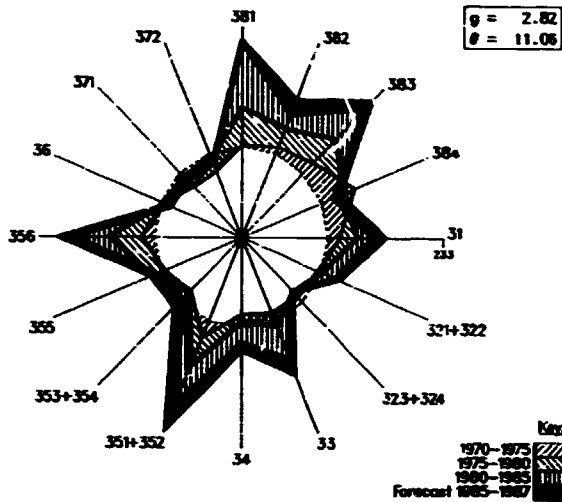


	1975	1980	1983
NMP: /na (in million dollars)	1132 /c	792 /c	750 /c
Per capita (in dollars)	159 /c	124 /c	110 /c
Manufacturing share /na (%)	11.9 /c	10.6 /c	10.2 /c
MANUFACTURING:			
Value added /na (in million dollars)	135 /c	84 /c	77 /c
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
389 Other manufacturing industries

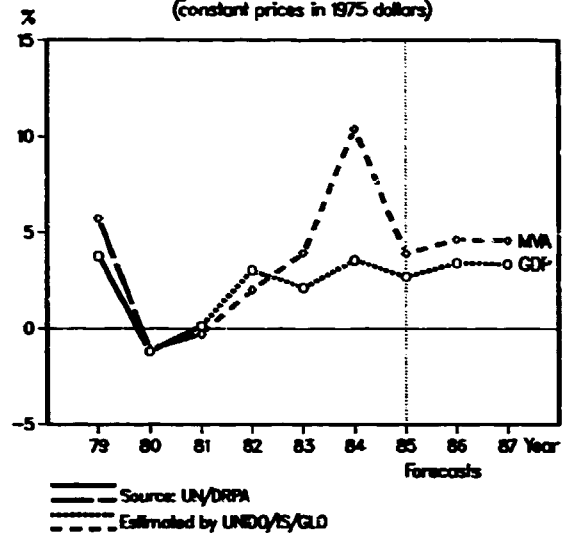


For source, footnotes and comments see "Technical notes" above.

Industrial structural change (Index of value added: 1970=100)



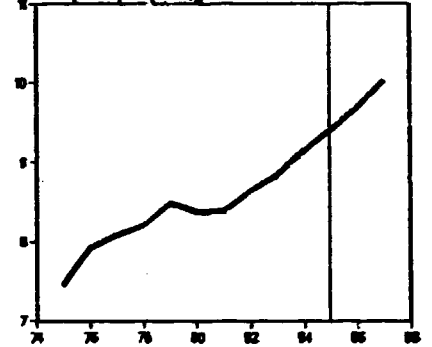
Annual growth rates of GDP and MVA (constant prices in 1975 dollars)



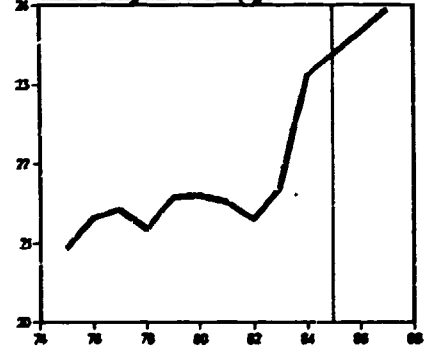
	1975	1980	1983
GDP: /na (in million dollars)	37712 /c	42873 /c	45155 /c
Per capita (in dollars)	7453 /c	8374 /c	8837 /c
Manufacturing share /na (%)	70.9 /c	21.6 /c	21.7 /c
MANUFACTURING:			
Value added /na (in million dollars)	7894 /c	9263 /c	9789 /c
Value added (in million dollars)	7201	12792	10565
Industrial production index	100	117	124
Gross output (in million dollars)	16797	31571	26118
Employment (in thousands)	375	381	360
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	57	59	60
Wages and salaries (%)	25	23	21
Operating surplus (%)	18	18	19
-PRODUCTIVITY: (in dollars)			
Gross output / worker	44841	82862	72529
Value added / worker	19222	33574	29343
Average wage	11357	19067	15415
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	3.61	2.91	1.90
in percentage of θ in 1970-1975	103	83	54
Growth rate / structural change	-1.61	-0.07	1.84
Degree of specialization	14.7	15.4	15.8
-VALUE ADDED: (in million dollars)			
311 Food products	1157	2347	2014
313 Beverages	323	491	419
314 Tobacco products	63	109	87
321 Textiles	310	423	369
322 Wearing apparel	152	221	181
323 Leather and fur products	24	30	23
324 Footwear	31	63	46
331 Wood and wood products	112	285	192
332 Furniture and fixtures	169	331	285
341 Paper and paper products	184	315	272
342 Printing and publishing	536	942	708
351 Industrial chemicals	227	552	525
352 Othe. chemical products	357	587	570
353 Petroleum refineries	40	65	48
354 Misc. petroleum and coal products	62	99	72
355 Rubber products	48	79	60
356 Plastic products	120	267	214
361 Pottery, china and earthenware	52	87	95
362 Glass and glass products	58	98	62
369 Other non-metal mineral products	390	628	419
371 Iron and steel	96	175	111
372 Non-ferrous metals	36	71	48
381 Metal products	458	913	724
382 Non-electrical machinery	978	1721	1333
383 Electrical machinery	413	713	572
384 Transport equipment	548	664	699
385 Professional and scientific equipment	124	285	272
390 Other manufacturing industries	121	219	186

For source, footnotes and comments see "Technical notes" above.

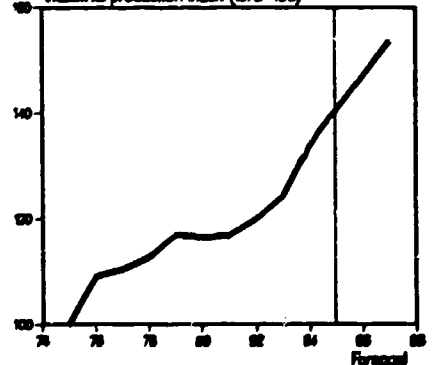
GDP per capita (1000)€



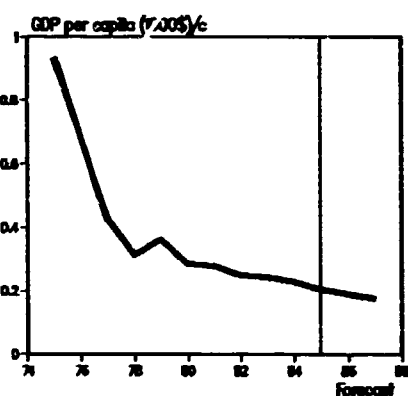
Manufacturing share in GDP (%)€



Industrial production index (1975=100)



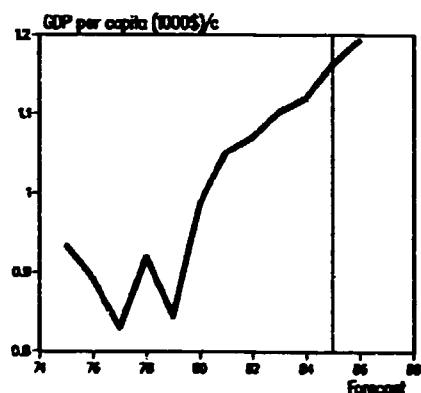
	1975	1980	1983
EDP: /na (in million dollars)	200 /c	88 /c	93 /c
Per capita (in dollars)	935 /c	284 /c	244 /c
Manufacturing share /na (%)
MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
390 Other manufacturing industries



For source, footnotes and comments see "Technical notes" above.

	1975	1980	1983
GDP: /na (in million dollars)	...	72 /c	84 /c
Per capita (in dollars)	...	986 /c	1103 /c
Manufacturing share /na (%)
MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change B (in degrees)
in percentage of B in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
389 Other manufacturing industries

For source, footnotes and comments see "Technical notes" above.



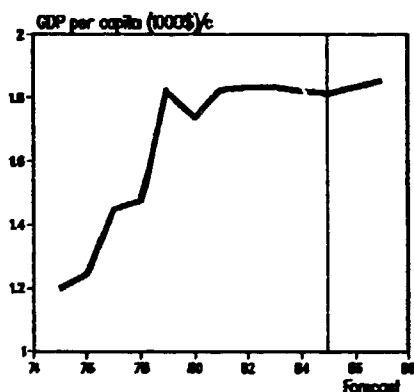
DOMINICAN REPUBLIC

	1975	1980	1983
GDP: /na (in million dollars)	3599 /c	4564 /c	5042 /c
Per capita (in dollars)	758 /c	839 /c	846 /c
Manufacturing share /na (%)	20.9 /c	20.4 /c	20.6 /c
MANUFACTURING:			
Value added /na (in million dollars)	752 /c	932 /c	1037 /c
Value added (in million dollars)	738	1020	...
Industrial production index	100	118	141
Gross output (in million dollars)	1744	2824	...
Employment (in thousands)	122	146	162
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	58	64	...
Wages and salaries (%)	10	10	...
Operating surplus (%)	32	26	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	14255	19357	...
Value added / worker	6038	6993	...
Average wage	1454	1867	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	1.23	2.69	0.21
in percentage of θ in 1970-1975	81	178	14
Growth rate / structural change	0.74	-0.42	8.09
Degree of specialization	49.4	40.0	45.0
-VALUE ADDED: (in million dollars)			
311 Food products	455	510	...
312 Beverages	72	103	...
314 Tobacco products	34	50	...
321 Textiles	13	29	...
322 Wearing apparel	5	13	...
323 Leather and fur products	6	11	...
324 Footwear	4	13	...
331 Wood and wood products	2	2	...
332 Furniture and fixtures	4	11	...
341 Paper and paper products	11	19	...
342 Printing and publishing	8	14	...
351 Industrial chemicals	13	18	...
352 Other chemical products	21	41	...
353 Petroleum refineries	15	66	...
354 Misc. petroleum and coal products	-	1	...
355 Rubber products	4	7	...
356 Plastic products	14	21	...
361 Pottery, china and earthenware	-	2	...
362 Glass and glass products	3	3	...
369 Other non-metal mineral products	25	32	...
371 Iron and steel	7	11	...
372 Non-ferrous metals	-	1	...
381 Metal products	17	28	...
382 Non-electrical machinery	3	5	...
383 Electrical machinery	4	7	...
384 Transport equipment	-	-	...
385 Professional and scientific equipment	1	1	...
389 Other manufacturing industries	1	2	...

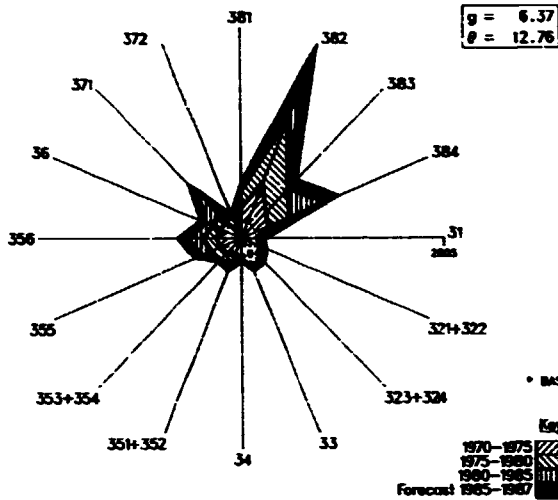
For source, footnotes and comments see "Technical notes" above.

	1975	1980	1983
GDP: /na (in million dollars)	805 /c	1010 /c	1129 /c
Per capita (in dollars)	1198 /c	1738 /c	1833 /c
Manufacturing share /na (%)
MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output):			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
221 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
390 Other manufacturing industries

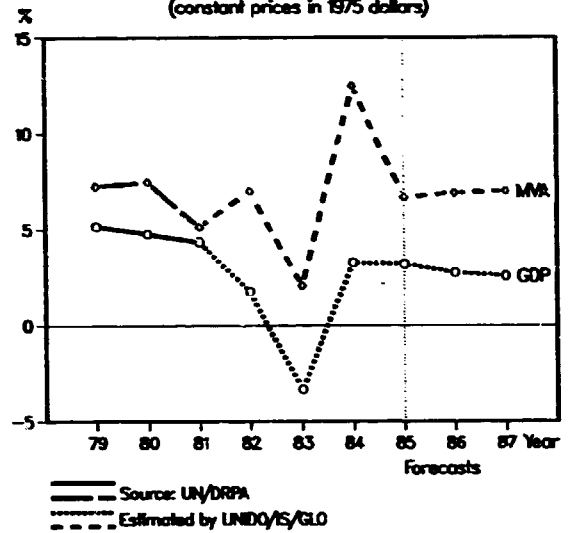
For source, footnotes and comments see "Technical notes" above.



Industrial structural change
(Index of value added: 1970=100)



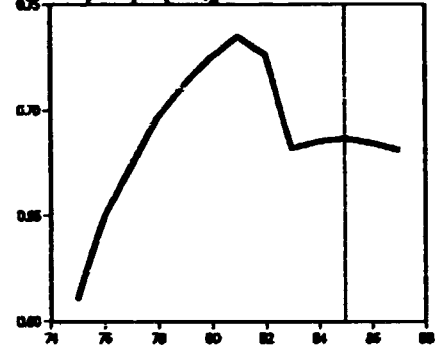
Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



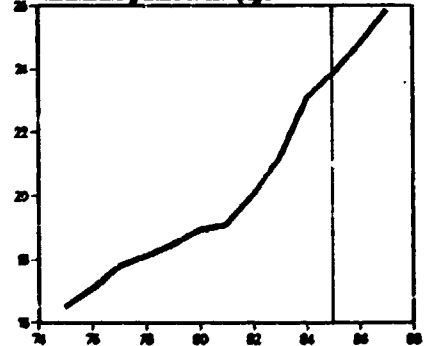
	1975	1980	1983
GDP: /na (in million dollars)	4310 /c	5888 /c	6043 /c
Per capita (in dollars)	610 /c	725 /c	682 /c
Manufacturing share /na (%)	16.5 /c	18.9 /c	21.2 /c
MANUFACTURING:			
Value added /na (in million dollars)	711 /c	1115 /c	1280 /c
Value added (in million dollars)	415	1328	...
Industrial production index	107	144	140
Gross output (in million dollars)	1112	3714	...
Employment (in thousands)	74	122	160
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	63	64	...
Wages and salaries (%)	11	16	...
Operating surplus (%)	26	20	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	15036	30489	...
Value added / worker	5615	10902	...
Average wage	1635	4859	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	1.79	1.76	3.22
in percentage of θ in 1970-1975	94	92	169
Growth rate / structural change	2.50	2.27	-1.85
Degree of specialization	32.7	27.2	24.4
-VALUE ADDED: (in million dollars)			
311 Food products	118	296	...
313 Beverages	36	96	...
314 Tobacco products	8	19	...
321 Textiles	55	146	...
322 wearing appare!	5	47	...
323 Leather and fur products	3	8	...
324 Footwear	-	7	...
331 Wood and wood products	12	38	...
332 Furniture and fixtures	4	32	...
341 Paper and paper products	13	42	...
342 Printing and publishing	16	42	...
351 Industrial chemicals	6	25	...
352 Other chemical products	23	91	...
353 Petroleum refineries	14	29	...
354 Misc. petroleum and coal products	1	4	...
355 Rubber products	7	25	...
356 Plastic products	14	34	...
361 Pottery, china and earthenware	1	7	...
362 Glass and glass products	2	10	...
369 Other non-metal mineral products	20	101	...
371 Iron and steel	5	25	...
372 Non-ferrous metals	1	5	...
381 Metal products	22	96	...
382 Non-electrical machinery	1	4	...
383 Electrical machinery	20	59	...
384 Transport equipment	3	25	...
385 Professional and scientific equipment	1	2	...
389 Other manufacturing industries	4	14	...

For source, footnotes and comments see "Technical notes" above.

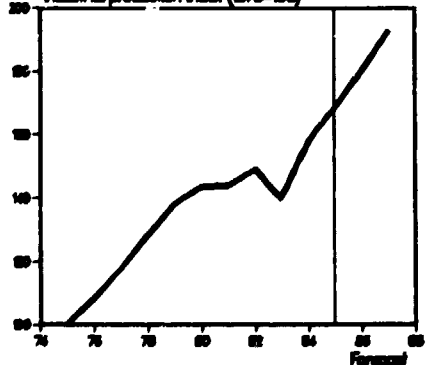
GDP per capita (1000\$)/c



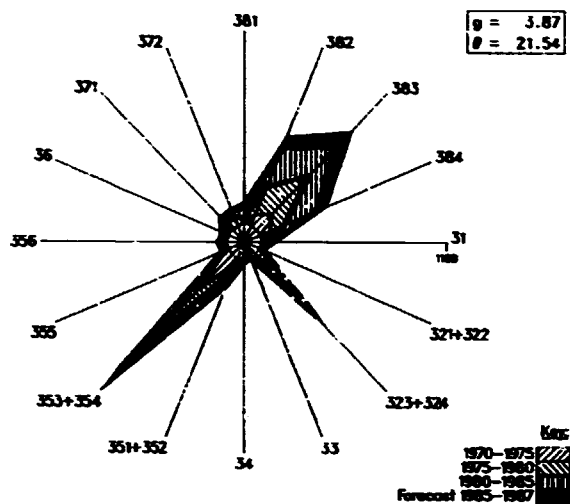
Manufacturing share in GDP (%)c



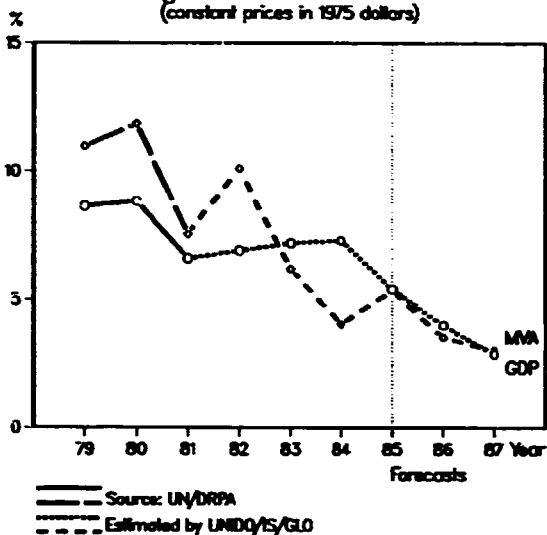
Industrial production index (1975=100)



Industrial structural change
(Index of value added: 1970=100)

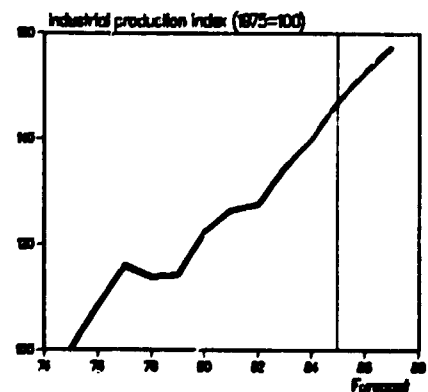
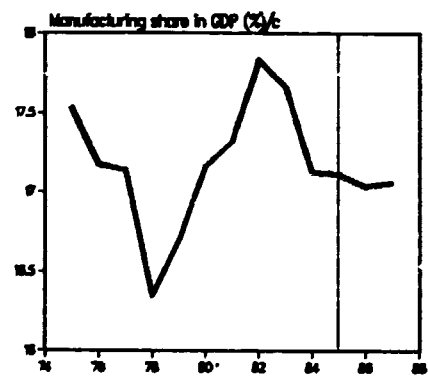
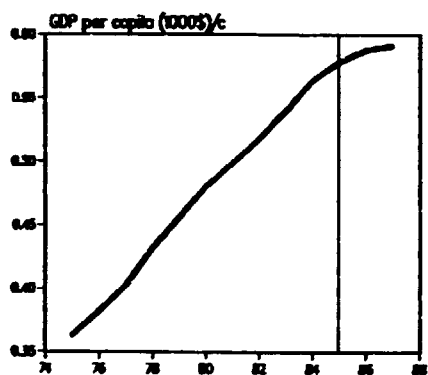


Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

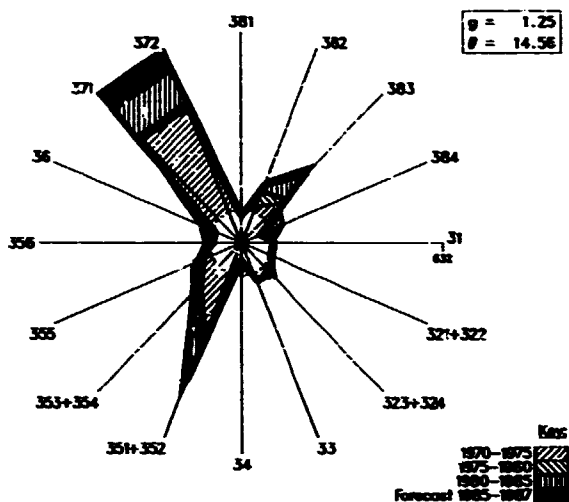


	1975	1980	1983
GDP: /na (in million dollars)	13408 /c	20311 /c	24811 /c
Per capita (in dollars)	362 /c	480 /c	540 /c
Manufacturing share /na (%)	17.5 /c	17.2 /c	17.7 /c
MANUFACTURING:			
Value added /na (in million dollars)	2351 /c	3486 /c	4382 /c
Value added (in million dollars)	1555	...	...
Industrial production index	100	122	135
Gross output (in million dollars)	5635	...	...
Employment (in thousands)	731	884	...
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	72	...	...
Wages and salaries (%)	14	...	...
Operating surplus (%)	14	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	7705	...	...
Value added / worker	2126	...	...
Average wage	1082	...	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	3.11	2.41	1.24
in percentage of θ in 1970-1975	94	72	37
Growth rate / structural change	4.13	2.95	4.43
Degree of specialization	29.0	22.5	20.7
-VALUE ADDED: (in million dollars)			
311 Food products	183	...	...
313 Beverages	25	...	...
314 Tobacco products	67	...	...
321 Textiles	483	...	...
322 wearing apparel	8	...	...
323 Leather and fur products	6	...	...
324 Footwear	16	...	...
331 wood and wood products	8	...	...
332 Furniture and fixtures	6	...	...
341 Paper and paper products	48	...	...
342 Printing and publishing	32	...	...
351 Industrial chemicals	39	...	...
352 Other chemical products	86	...	...
353 Petroleum refineries	34	...	...
354 Misc. petroleum and coal products	34	...	...
355 Rubber products	26	...	...
356 Plastic products	20	...	...
361 Pottery, china and earthenware	6	...	...
362 Glass and glass products	15	...	...
369 Other non-metal mineral products	63	...	...
371 Iron and steel	88	...	...
372 Non-ferrous metals	34	...	...
381 Metal products	52	...	...
382 Non-electrical machinery	48	...	...
383 Electrical machinery	66	...	...
384 Transport equipment	57	...	...
385 Professional and scientific equipment	-	...	...
389 Other manufacturing industries	1	...	...

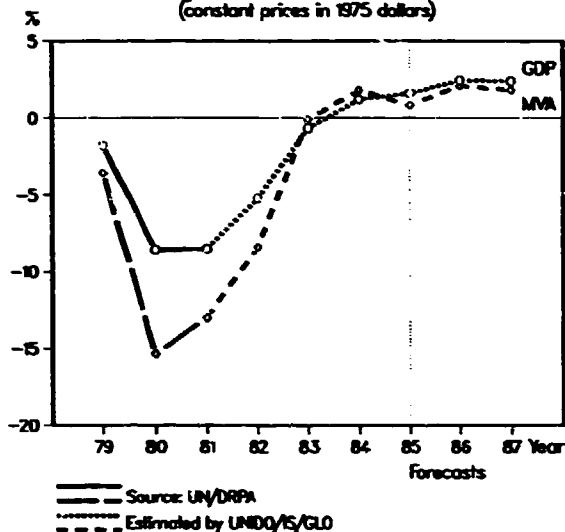
For source, footnotes and comments see "Technical notes" above.



Industrial structural change
(Index of value added: 1970=100)

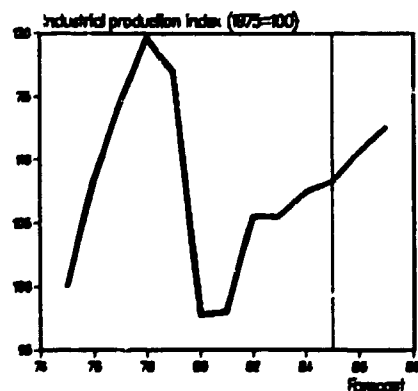
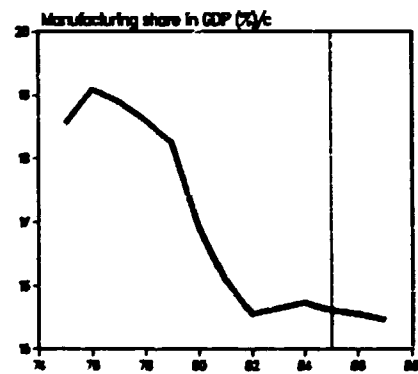
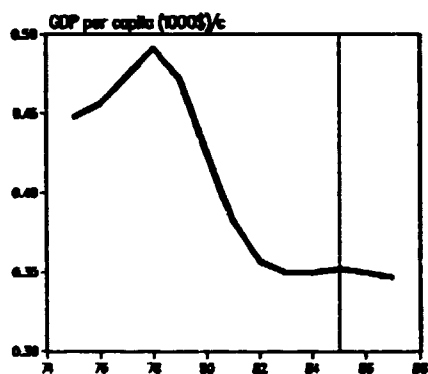


Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



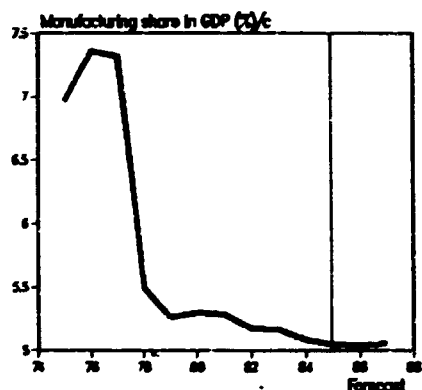
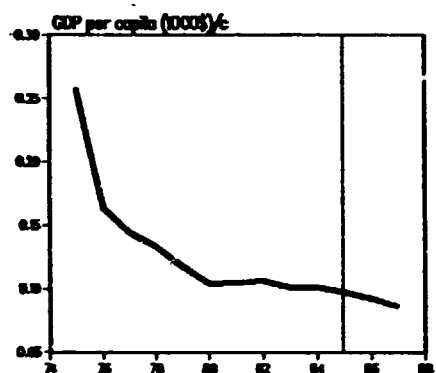
	1975	1980	1983
GDP: /na (in million dollars)	1791 /c	1918 /c	1652 /c
Per capita (in dollars)	448 /c	425 /c	350 /c
Manufacturing share /na (%)	18.6 /c	16.9 /c	15.6 /c
MANUFACTURING:			
Value added /na (in million dollars)	332 /c	324 /c	258 /c
Value added (in million dollars)	327	448	...
Industrial production index	100	98	106
Gross output (in million dollars)	865	1130	...
Employment (in thousands)	51	39	...
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	62	60	...
Wages and salaries (%)	9	12	...
Operating surplus (%)	29	27	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	16957	28857	...
Value added / worker	6423	11427	...
Average wage	1453	3583	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	12.22	2.02	1.25
in percentage of θ in 1970-1975	183	30	19
Growth rate / structural change	0.24	-8.10	0.01
Degree of specialization	23.2	22.7	23.3
-VALUE ADDED: (in million dollars)			
311 Food products	77	78	...
313 Beverages	27	63	...
314 Tobacco products	11	26	...
321 Textiles	84	62	...
322 Wearing apparel	10	16	...
323 Leather and fur products	2	5	...
324 Footwear	9	13	...
331 Wood and wood products	-	1	...
332 Furniture and fixtures	3	3	...
341 Paper and paper products	6	40	...
342 Printing and publishing	10	8	...
351 Industrial chemicals	26	4	...
352 Other chemical products	18	46	...
353 Petroleum refineries	4	14	...
354 Misc. petroleum and coal products	-	2	...
355 Rubber products	2	4	...
356 Plastic products	4	13	...
361 Pottery, china and earthenware	-	-	...
362 Glass and glass products	-	-	...
369 Other non-metal mineral products	11	11	...
371 Iron and steel	4	9	...
372 Non-ferrous metals	1	1	...
381 Metal products	5	10	...
382 Non-electrical machinery	1	6	...
383 Electrical machinery	8	9	...
384 Transport equipment	2	1	...
385 Professional and scientific equipment	-	-	...
389 Other manufacturing industries	2	4	...

For source, footnotes and comments see "Technical notes" above.

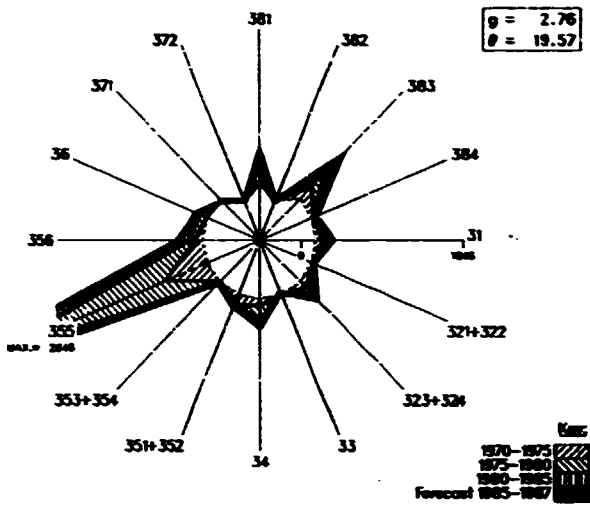


	1975	1980	1983
GDP: /na (in million dollars)	82 /c	37 /c	38 /c
Per capita (in dollars)	258 /c	104 /c	101 /c
Manufacturing share /na (%)	7.0 /c	5.3 /c	5.2 /c
MANUFACTURING:			
Value added /na (in million dollars)	6 /c	2 /c	2 /c
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 wearing apparel
323 Leather and fur products
324 Footwear
331 wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
390 Other manufacturing industries

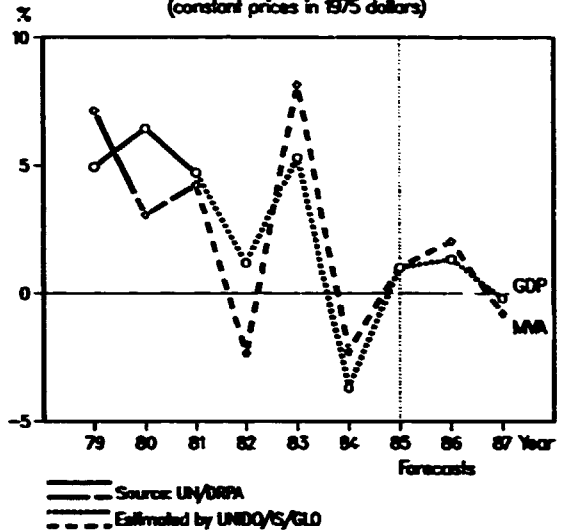
For source, footnotes and comments see "Technical notes" above.



Industrial structural change
(Index of value added: 1970=100)

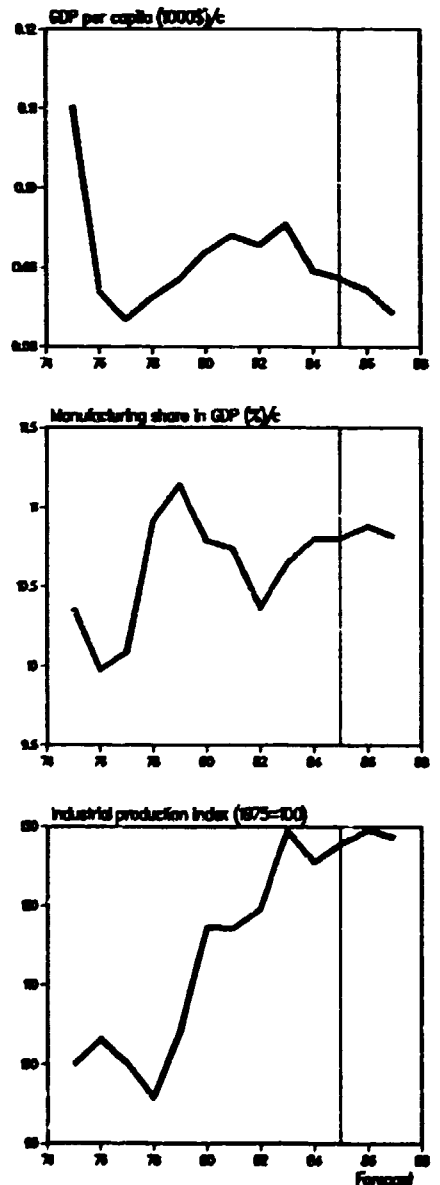


Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

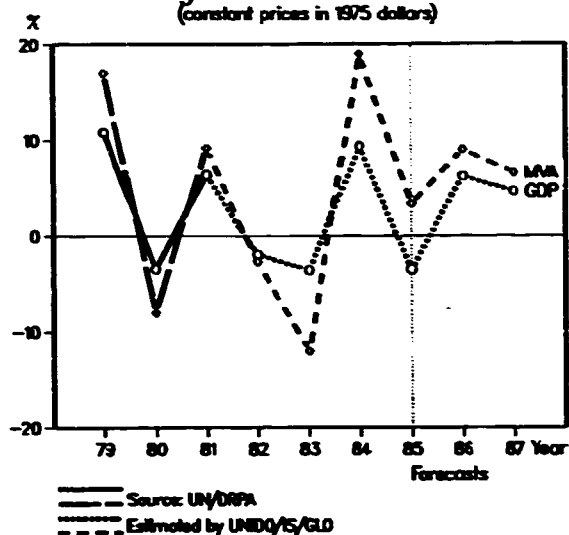


	1975	1980	1983
GDP: /na (in million dollars)	3030 /c	3540 /c	3950 /c
Per capita (in dollars)	110 /c	92 /c	95 /c
Manufacturing share /na (%)	10.4 /c	10.8 /c	10.6 /c
MANUFACTURING:			
Value added /na (in million dollars)	314 /c	382 /c	420 /c
Value added (in million dollars)	212	459	...
Industrial production index	100	117	129
Gross output (in million dollars)	439	1016	...
Employment (in thousands)	60	77	85
-PROFITABILITY: (in percent of gross output):			
Intermediate input (%)	52	55	...
Wages and salaries (%)	10	8	...
Operating surplus (%)	38	37	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	7297	13214	...
Value added / worker	3521	5971	...
Average wage	764	1075	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	4.38	6.02	1.44
in percentage of θ in 1970-1975	95	130	31
Growth rate / structural change	-1.21	2.09	5.78
Degree of specialization	22.3	19.2	18.5
-VALUE ADDED: (in million dollars)			
311 Food products	46	110	...
313 Beverages	31	83	...
314 Tobacco products	9	30	...
321 Textiles	69	106	...
322 Wearing apparel	2	3	...
323 Leather and fur products	2	14	...
324 Footwear	3	10	...
331 Wood and wood products	4	8	...
332 Furniture and fixtures	1	2	...
341 Paper and paper products	2	9	...
342 Printing and publishing	6	11	...
351 Industrial chemicals	-	1	...
352 Other chemical products	7	13	...
353 Petroleum refineries	9	20	...
354 Misc. petroleum and coal products	-	-	...
355 Rubber products	4	3	...
356 Plastic products	2	3	...
361 Pottery, china and earthenware	-	-	...
362 Glass and glass products	1	2	...
369 Other non-metal mineral products	5	8	...
371 Iron and steel	5	9	...
372 Non-ferrous metals	-	-	...
381 Metal products	2	7	...
382 Non-electrical machinery	-	-	...
383 Electrical machinery	-	-	...
384 Transport equipment	-	-	...
385 Professional and scientific equipment	-	-	...
389 Other manufacturing industries	-	-	...

For source, footnotes and comments see "Technical notes" above.

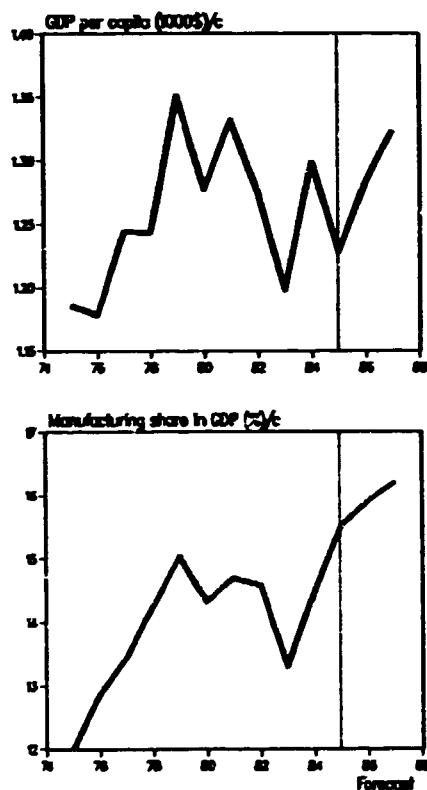


Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

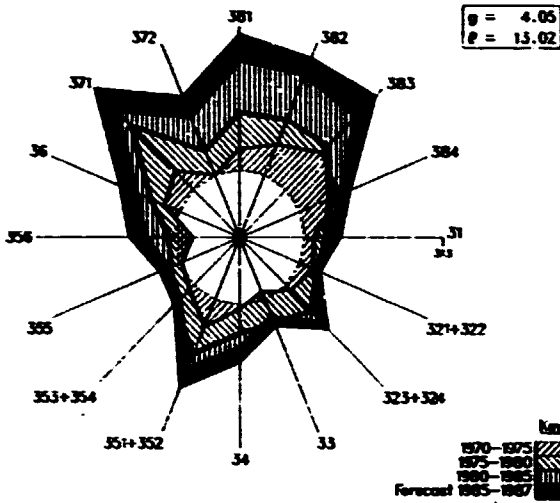


	1975	1980	1983
GDP: /na (in million dollars)	683 /c	810 /c	815 /c
Per capita (in dollars)	1185 /c	1278 /c	1198 /c
Manufacturing share /na (%)	12.0 /c	14.3 /c	13.3 /c
MANUFACTURING:			
Value added /na (in million dollars)	82 /c	116 /c	108 /c
Value added (in million dollars)	63	121	...
Industrial production index	...	...	...
Gross output (in million dollars)	236	489	...
Employment (in thousands)	9	13	13
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	73	75	...
Wages and salaries (%)	10	11	...
Operating surplus (%)	17	14	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	25145	38791	...
Value added / worker	6745	9640	...
Average wage	2526	4141	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	...	...	...
in percentage of θ in 1970-1975	...	...	...
Growth rate / structural change	...	...	...
Degree of specialization	...	...	...
-VALUE ADDED: (in million dollars)			
311 Food products	37	7:	...
313 Beverages	3	4	...
314 Tobacco products	3	4	...
321 Textiles	2 a	2 a	...
322 Wearing apparel	- a	- a	...
323 Leather and fur products	- a	- a	...
324 Footwear	-	-	...
331 Wood and wood products	2	7	...
332 Furniture and fixtures	1	3	...
341 Paper and paper products	1	2	...
342 Printing and publishing	1	4	...
351 Industrial chemicals	-	-	...
352 Other chemical products	1	4	...
353 Petroleum refineries	-	-	...
354 Misc. petroleum and coal products	-	-	...
355 Rubber products	-	1	...
356 Plastic products	1	2	...
361 Pottery, china and earthenware	-	-	...
362 Glass and glass products	-	-	...
369 Other non-metal mineral products	3	6	...
371 Iron and steel	-	-	...
372 Non-ferrous metals	-	-	...
381 Metal products	4	6	...
382 Non-electrical machinery	1	1	...
383 Electrical machinery	1	1	...
384 Transport equipment	2	4	...
385 Professional and scientific equipment	-	-	...
389 Other manufacturing industries	-	-	...

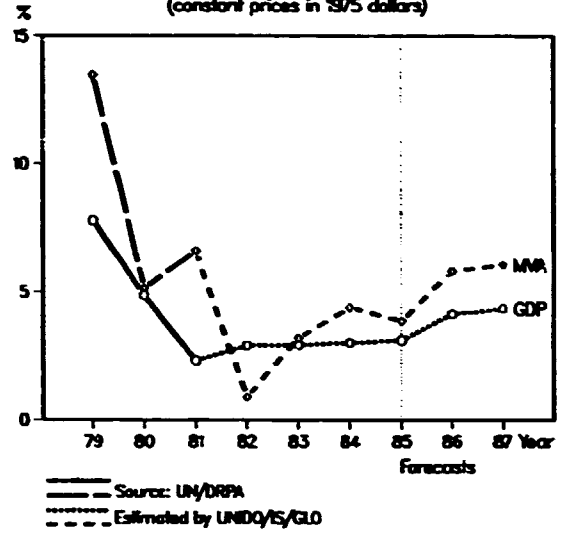
For source, footnotes and comments see "Technical notes" above.



Industrial structural change
(Index of value added: 1970=100)

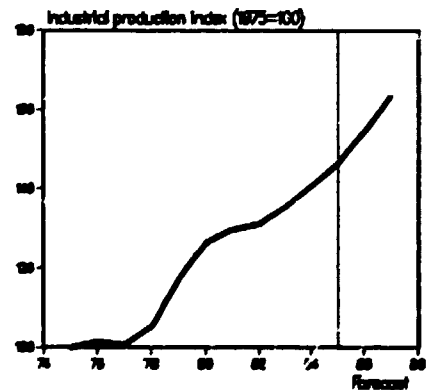
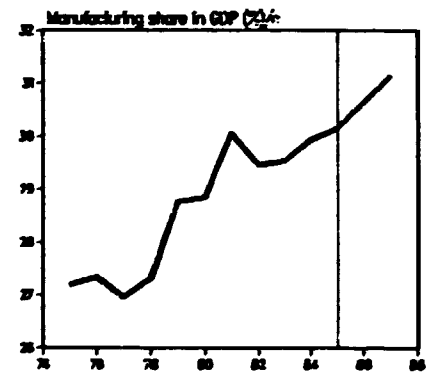
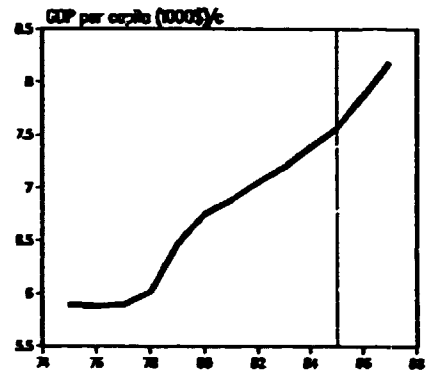


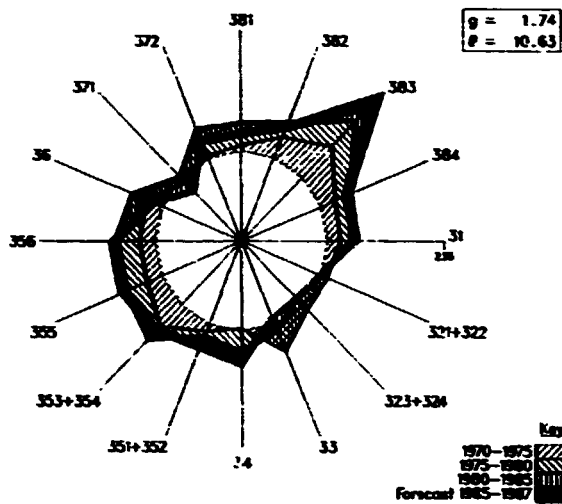
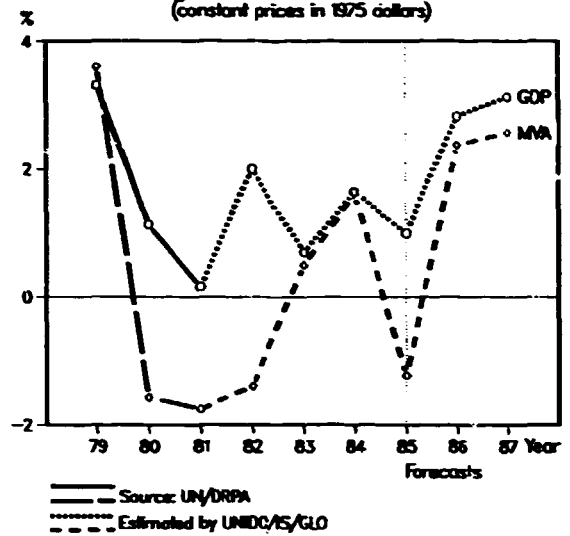
Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



	1975	1980	1983
GDP: /na (in million dollars):	27744 /c	32269 /c	34969 /c
Per capita (in dollars)	5890 /c	6751 /c	7195 /c
Manufacturing share /na (%):	27.2 /c	28.8 /c	29.5 /c
MANUFACTURING:			
Value added /na (in million dollars):	7544 /c	9306 /c	10330 /c
Value added (in million dollars):	7367	14355	12776
Industrial production index	100	126	135
Gross output (in million dollars):	20684	40872	35347
Employment (in thousands)	518	531	507
-PROFITABILITY: (in percent of gross output):			
Intermediate input (%)	64	65	64
wages and salaries (%)	18	15	16
Operating surplus (%)	18	20	20
-PRODUCTIVITY: (in dollars)			
Gross output / worker	39630	76972	69745
Value added / worker	14186	27033	25208
Average wage	7021	11913	11097
-STRUCTURAL INDICES:			
Structural change θ (in degrees, in percentage of θ in 1970-1975)	9.61	2.69	2.83
Growth rate / structural change	-0.54	3.04	1.20
Degree of specialization	12.7	13.1	12.9
-VALUE ADDED: (in million dollars)			
311 Food products	806	1403	1323
313 Beverages	133	225	199
314 Tobacco products	30	46	57
321 Textiles	286	470	341
322 wearing apparel	278	499	395
323 Leather and fur products	30	54	36
324 Footwear	52	134	106
331 wood and wood products	291	1197	777
332 Furniture and fixtures	131	258	239
341 Paper and paper products	1019	2090	1821
342 Printing and publishing	493	1081	1101
351 Industrial chemicals	368	555	479
352 Other chemical products	158	348	336
353 Petroleum refineries	98	445	346
354 Misc. petroleum and coal products	27	46	34
355 Rubber products	74	105	81
356 Plastic products	82	164	171
361 Pottery, china and earthenware	27	46	47
362 Glass and glass products	49	105	81
369 Other non-metal mineral products	245	435	482
371 Iron and steel	294	545	431
372 Non-ferrous metals	68	142	83
381 Metal products	408	757	763
382 Non-electrical machinery	869	1470	1418
383 Electrical machinery	403	695	702
384 Transport equipment	550	824	826
385 Professional and scientific equipment	46	110	133
390 Other manufacturing industries	52	107	99

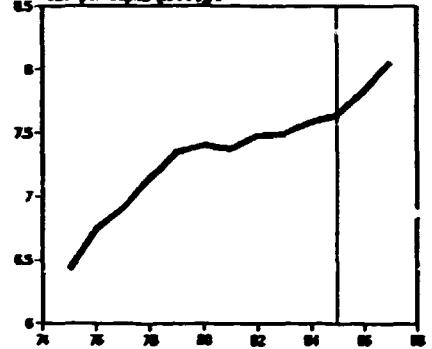
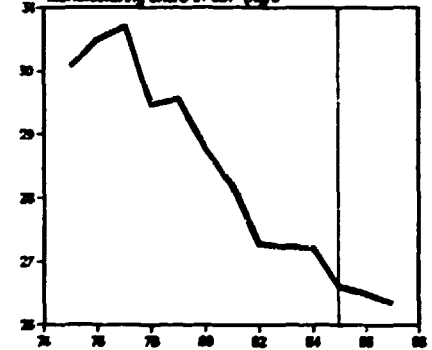
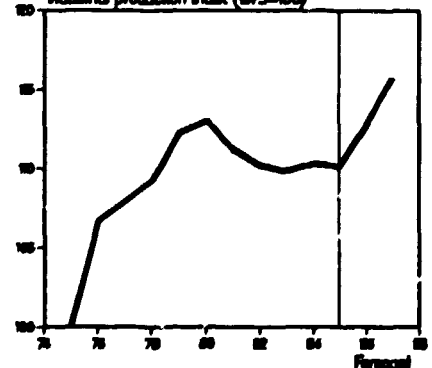
For source, footnotes and comments see "Technical notes" above.



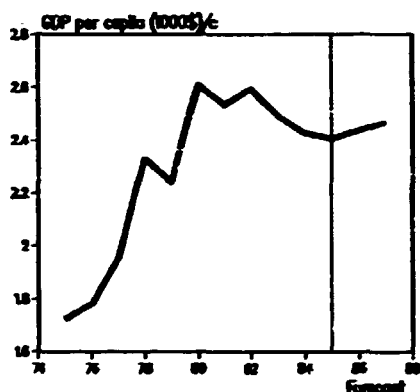
Industrial structural change
 (Index of value added: 1970=100)

Annual growth rates of GDP and MVA
 (constant prices in 1975 dollars)


	1975	1980	1983
GDP: /na (in million dollars):	339290 /c	398780 /c	410265 /c
Per capita (in dollars):	6427 /c	7401 /c	7496 /c
Manufacturing share /na (%):	30.1 /c	28.8 /c	27.2 /c
MANUFACTURING:			
Value added /na (in million dollars):	102051 /c	114733 /c	111706 /c
Value added (in million dollars):	92827	173305	130193
Industrial production index:	100	113	110
Gross output (in million dollars):	223551	430142	317767
Employment (in thousands):	5325	5058	4712
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%):	...	...	...
Wages and salaries (%):	...	...	...
Operating surplus (%):	...	...	...
-PRODUCTIVITY: (in dollars):			
Gross output / worker:	...	...	...
Value added / worker:	...	...	...
Average wage:	...	...	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees):	4.09	1.64	2.06
in percentage of θ in 1970-1975:	125	5	63
Growth rate / structural change:	-1.39	0.40	-0.16
Degree of specialization:	12.7	13.0	13.4
-VALUE ADDED: (in million dollars)			
311 Food products	10304	20853	17531
313 Beverages	2336	4028	3464
314 Tobacco products	1636	1754	1666
321 Textiles	4346	6398	4343
322 Wearing apparel	2477	3881	2913
323 Leather and fur products	514	735	643
324 Footwear	911	1730	1063
331 Wood and wood products	1355	1754	1063
332 Furniture and fixtures	1051	1730	1338
341 Paper and paper products	2453	4123	3162
342 Printing and publishing	2430	4171	3569
351 Industrial chemicals	4042	9171	7046
352 Other chemical products	3176	5687	4199
353 Petroleum refineries	5421	9787	7519
354 Misc. petroleum and coal products	23	118	79
355 Rubber products	1472	3152	2008
356 Plastic products	1472	2986	2349
361 Pottery, china and earthenware	327	640	394
362 Glass and glass products	1028	1991	1548
369 Other non-metal mineral products	2150	4052	2559
371 Iron and steel	5888	3981	5826
372 Non-ferrous metals	1379	3009	2401
381 Metal products	4603	8791	6180
382 Non-electrical machinery	12477	21564	17911
383 Electrical machinery	7407	13341	9802
384 Transport equipment	9579	21564	16428
385 Professional and scientific equipment	1215	1801	1338
389 Other manufacturing industries	1355	2417	1824

For source, footnotes and comments see "Technical notes" above.

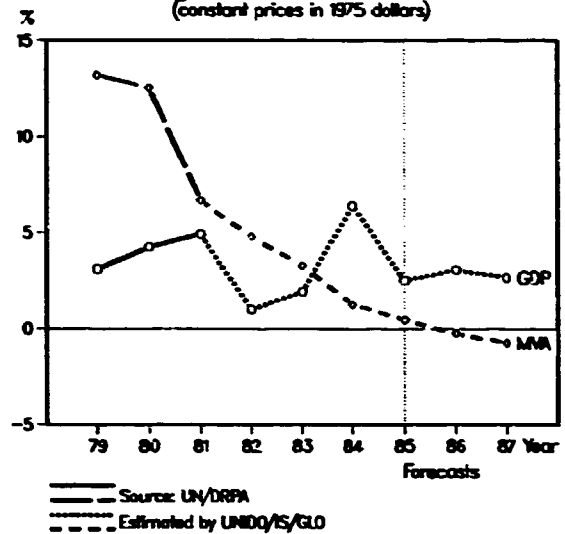
GDP per capita (000\$)€

Manufacturing share in GDP (%)/c

Industrial production index (1975=100)


	1975	1980	1983
GDP: /na (in million dollars)	100 /c	180 /c	187 /c
Per capita (in dollars)	1724 /c	2609 /c	2493 /c
Manufacturing share /na (%)
MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change B (in degrees)
in percentage of B in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
389 Other manufacturing industries



For source, footnotes and comments see "Technical notes" above.

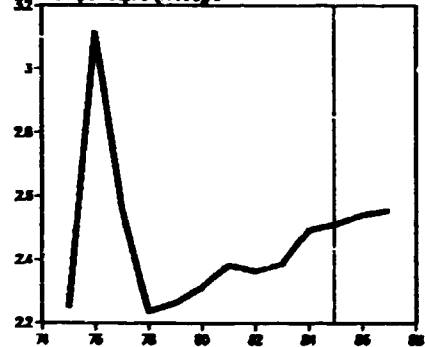
Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



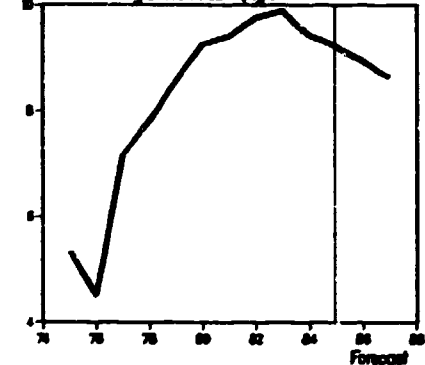
	1975	1980	1983
GDP: /na (in million dollars)	2158 /c	2452 /c	2648 /c
Per capita (in dollars)	2248 /c	2313 /c	2385 /c
Manufacturing share /na (%)	5.3 /c	9.3 /c	9.9 /c
MANUFACTURING:			
Value added /na (in million dollars)	115 /c	227 /c	262 /c
Value added (in million dollars)	111	...	...
Industrial production index	...	...	...
Gross output (in million dollars)	...	...	...
Employment (in thousands)	...	...	...
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	...	72	...
Wages and salaries (%)	...	16	...
Operating surplus (%)	...	12	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	...	38115	...
Value added / worker	...	10737	...
Average wage	...	6057	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	...	...	...
in percentage of θ in 1970-1975	...	...	...
Growth rate / structural change	...	...	...
Degree of specialization	...	...	...
-VALUE ADDED: (in million dollars)			
311 Food products	12	13	...
313 Beverages	6	13	...
314 Tobacco products	6	12	...
321 Textiles	2	2	...
322 Wearing apparel	3	4	...
323 Leather and fur products	1 a	1 a	...
324 Footwear	- a	- a	...
331 Wood and wood products	24	52	...
332 Furniture and fixtures	3	7	...
341 Paper and paper products	1	1	...
342 Printing and publishing	1	3	...
351 Industrial chemicals	2	6	...
352 Other chemical products	1	3	...
353 Petroleum refineries	6	18	...
354 Misc. petroleum and coal products	-	-	...
355 Rubber products	- b	- b	...
356 Plastic products	- b	- b	...
361 Pottery, china and earthenware	-	-	...
362 Glass and glass products	-	-	...
369 Other non-metal mineral products	4	8	...
371 Iron and steel	-	...	...
372 Non-ferrous metals	5	...	...
381 Metal products	12	...	...
382 Non-electrical machinery	2	...	...
383 Electrical machinery	7	...	...
384 Transport equipment	10	...	...
385 Professional and scientific equipment	1	...	...
389 Other manufacturing industries	4	...	...

For source, footnotes and comments see "Technical Notes" above.

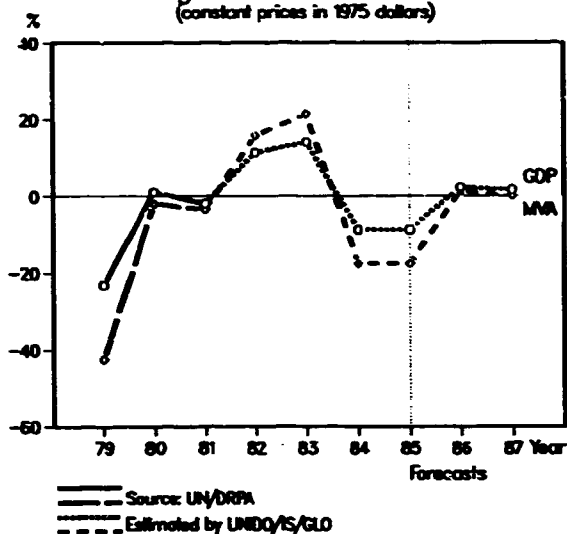
GDP per capita (000\$)/c



Manufacturing share in GDP (%)

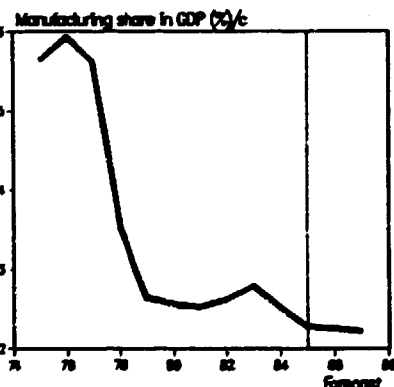
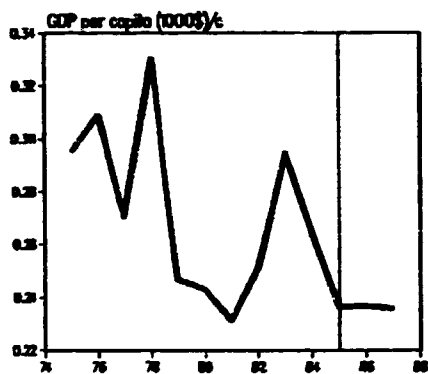


Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

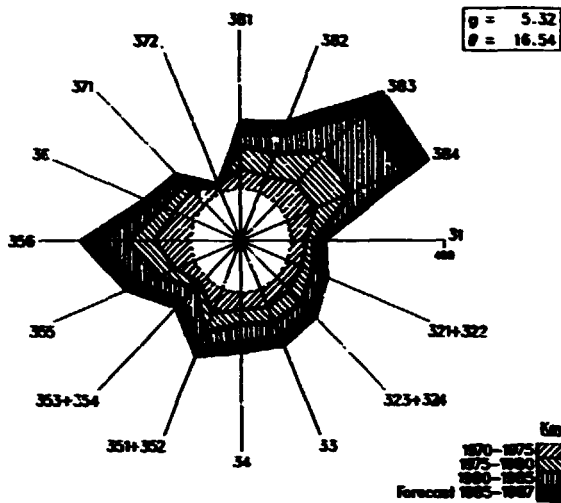


	1975	1980	1983
GDP: /na (in million dollars)	155 /c	146 /c	182 /c
Per capita (in dollars)	295 /c	243 /c	294 /c
Manufacturing share /na (%)	5.6 /c	2.6 /c	2.6 /c
MANUFACTURING:			
Value added /na (in million dollars)	9 /c	4 /c	5 /c
Value added (in million dollars)	3	11	...
Industrial production index	...	...	...
Gross output (in million dollars)	21	30	...
Employment (in thousands)	3	2	2
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	86	63	...
Wages and salaries (%)	6	10	...
Operating surplus (%)	8	28	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	6845	16350	...
Value added / worker	964	6098	...
Average wage	417	1566	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	...	...	...
in percentage of θ in 1970-1975	...	...	...
Growth rate / structural change	...	...	...
Degree of specialization	...	...	...
-VALUE ADDED: (in million dollars)			
311 Food products	3	3	...
313 Beverages	-	1	...
314 Tobacco products	-	-	...
321 Textiles	-	-	...
322 Wearing apparel	-	-	...
323 Leather and fur products	-	-	...
324 Footwear	-	-	...
331 Wood and wood products	-	-	...
332 Furniture and fixtures	-	1	...
341 Paper and paper products	-	-	...
342 Printing and publishing	-	-	...
351 Industrial chemicals	-	-	...
352 Other chemical products	-	-	...
353 Petroleum refineries	-	-	...
354 Misc. petroleum and coal products	-	-	...
355 Rubber products	-	-	...
356 Plastic products	-	-	...
361 Pottery, china and earthenware	-	-	...
362 Glass and glass products	-	-	...
369 Other non-metal mineral products	-	-	...
371 Iron and steel	-	-	...
372 Non-ferrous metals	-	-	...
381 Metal products	-	-	...
382 Non-electrical machinery	-	-	...
383 Electrical machinery	-	-	...
384 Transport equipment	-	-	...
385 Professional and scientific equipment	-	-	...
389 Other manufacturing industries	-	6	...

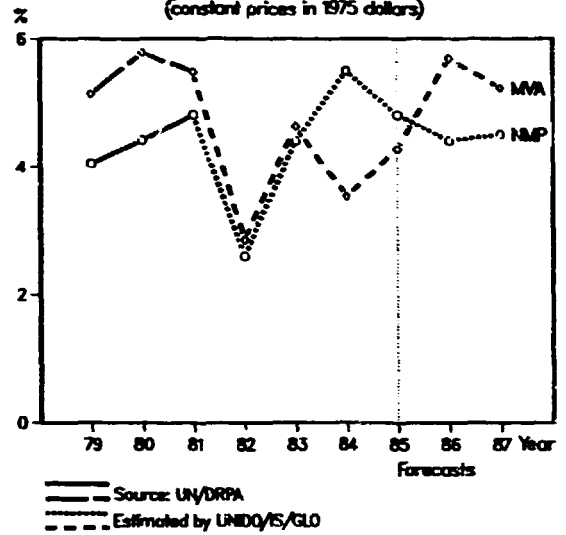
For source, footnotes and comments see "Technical notes" above.



Industrial structural change
(Ind^r of value added: 1970=100)



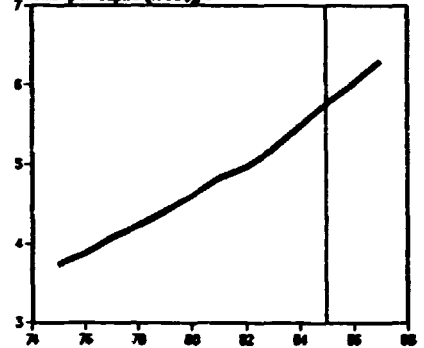
Annual growth rates of NMP and MVA
(constant prices in 1975 dollars)



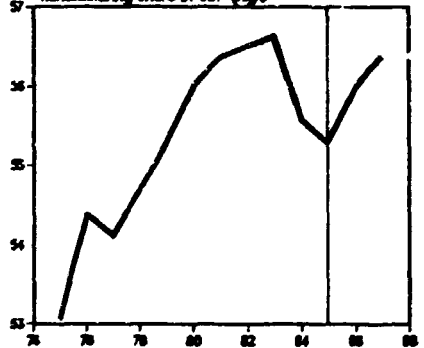
	1975	1980	1983
NMP: /na (in million dollars)	62949 /c	77073 /c	86533 /c
Per capita (in dollars)	3736 /c	4604 /c	5182 /c
Manufacturing share /na (%)	53.1 /c	56.0 /c	56.6 /c
MANUFACTURING:			
value added /na (in million dollars)	33403 /c	43167 /c	49005 /c
value added (in million dollars)	...	...	...
Industrial production index	100	128	146
Gross output (in million dollars)	74137	123831	141500
Employment (in thousands)	2827	2896	2942
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	...	...	...
Wages and salaries (%)	...	...	...
Operating surplus (%)	...	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	...	...	...
Value added / worker	...	...	...
Average wage	...	...	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	1.10	1.35	1.55
in percentage of θ in 1970-1975	91	113	128
Growth rate / structural change	5.86	3.57	2.90
Degree of specialization	12.2	13.2	14.1
-VALUE ADDED: (in million dollars)			
311 Food products	...	...	...
313 Beverages	...	...	...
314 Tobacco products	...	...	...
321 Textiles	...	...	...
322 Wearing apparel	...	...	...
323 Leather and fur products	...	...	...
324 Footwear	...	...	...
331 Wood and wood products	...	...	...
332 Furniture and fixtures	...	...	...
341 Paper and paper products	...	...	...
342 Printing and publishing	...	...	...
351 Industrial chemicals	...	...	...
352 Other chemical products	...	...	...
353 Petroleum refineries	...	...	...
354 Misc. petroleum and coal products	...	...	...
355 Rubber products	...	...	...
356 Plastics products	...	...	...
361 Pottery, china and earthenware	...	...	...
362 Glass and glass products	...	...	...
369 Other non-metal mineral products	...	...	...
371 Iron and steel	...	...	...
372 Non-ferrous metals	...	...	...
381 Metal products	...	...	...
382 Non-electrical machinery	...	...	...
383 Electrical machinery	...	...	...
384 Transport equipment	...	...	...
385 Professional and scientific equipment	...	...	...
389 Other manufacturing industries	...	...	...

For source, footnotes and comments see "Technical notes" above.

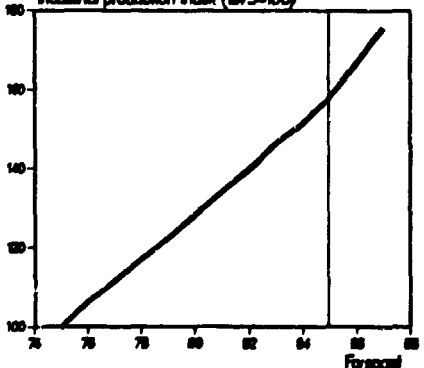
NMP per capita (000\$)/c



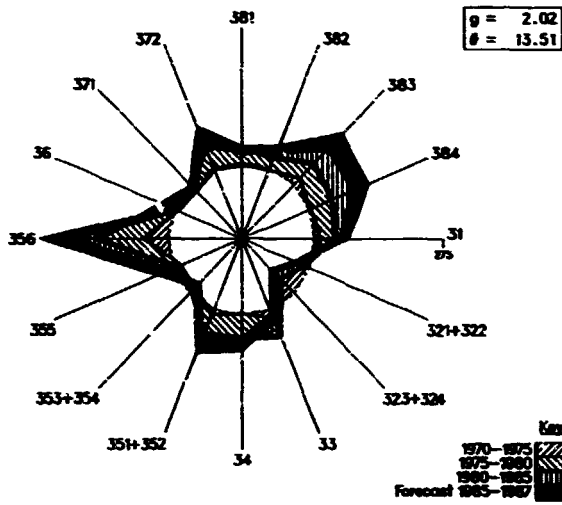
Manufacturing share in GDP (%)c



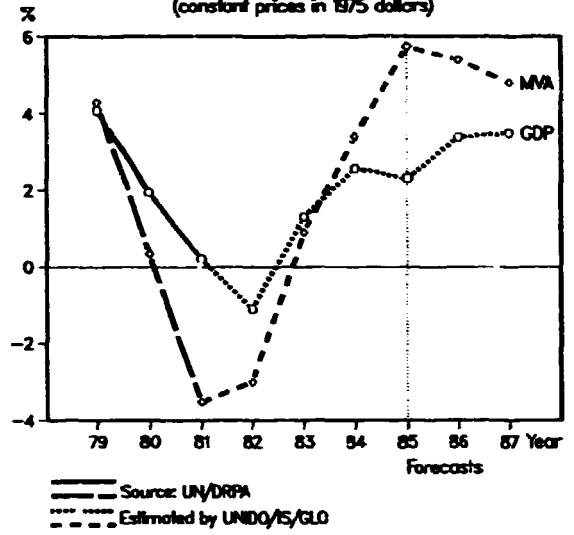
Industrial production index (1975=100)



Industrial structural change
(Index of value added: 1970=100)

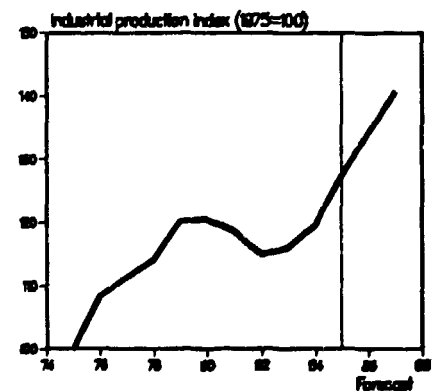
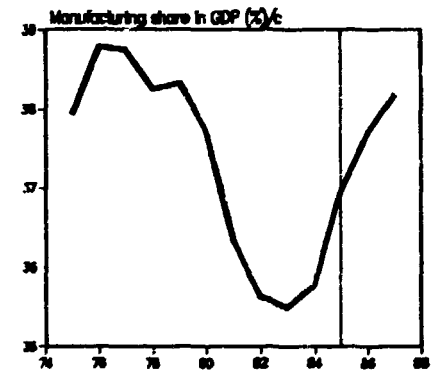
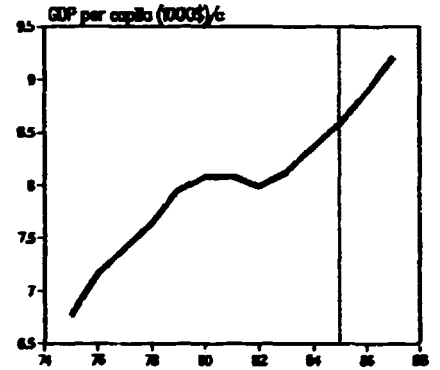


Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

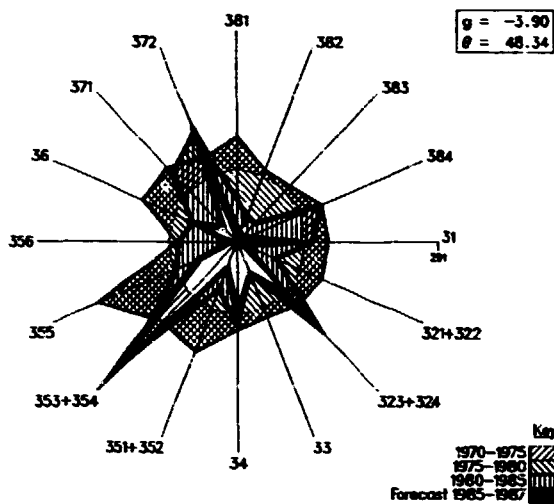


	1975	1980	1983
GDP: /na (in million dollars)	418206 /c	497170 /c	499114 /c
Per capita (in dollars)	6764 /c	8076 /c	8126 /c
Manufacturing share /na (%)	37.9 /c	37.7 /c	35.5 /c
MANUFACTURING:			
Value added /na (in million dollars)	158655 /c	187568 /c	177118 /c
Value added (in million dollars)	144279	268948	207599
Industrial production index	100	121	...
Gross output (in million dollars)	291402	633333	49...
Employment (in thousands)	7284	7229	6...
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	50	58	...
Wages and salaries (%)	24	21	...
Operating surplus (%)	25	21	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	40006	87593	...
Value added / worker	19808	37204	...
Average wage	9778	18501	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	4.46	2.06	1.39
in percentage of θ in 1970-1975	164	76	51
Growth rate / structural change	-1.53	0.13	0.68
Degree of specialization	13.7	14.2	15.2
-VALUE ADDED: (in million dollars)			
311 Food products	9438	19680	...
313 Beverages	4446	6435	...
314 Tobacco products	4156	6837	...
321 Textiles	4588	6992	...
322 Wearing apparel	3284	5052	...
323 Leather and fur products	579	992	...
324 Footwear	689	1179	...
331 wood and wood products	2232	4544	...
332 Furniture and fixtures	3070	5621	...
341 Paper and paper products	2685	5113	...
342 Printing and publishing	3447	6066	...
351 Industrial chemicals	7983	14617	...
352 Other chemical products	5285	8231	...
353 Petroleum refineries	7086	15278	...
354 Misc. petroleum and coal products	685	882	...
355 Rubber products	1671	3185	...
356 Plastic products	2555	6127	...
361 Pottery, china and earthenware	640	733	...
362 Glass and glass products	1161	2485	...
369 Other non-metal mineral products	4503	7928	...
371 Iron and steel	11805	19344	...
372 Non-ferrous metals	1422	2956	...
381 Metal products	7437	14501	...
382 Non-electrical machinery	18696	34523	...
383 Electrical machinery	15919	30595	...
384 Transport equipment	14943	31532	...
385 Professional and scientific equipment	2958	6215	...
386 Other manufacturing industries	827	1702	...

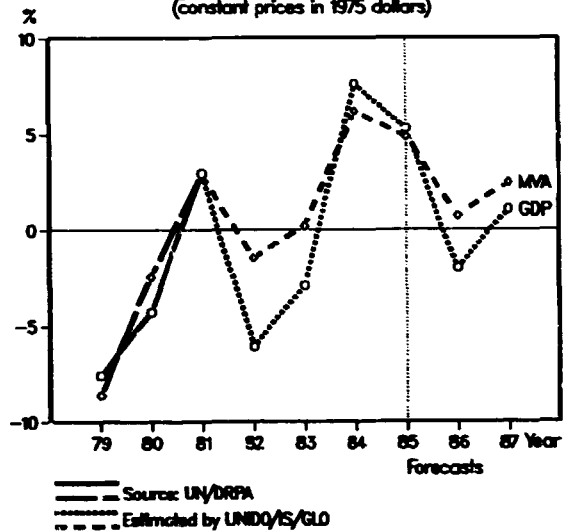
For source, footnotes and comments see "Technical notes" above.



Industrial structural change (Index of value added: 1970=100)



Annual growth rates of GDP and MVA (constant prices in 1975 dollars)



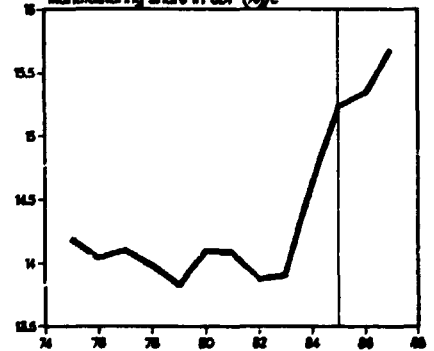
	1975	1980	1983
GDP: /na (in million dollars)	4594 /c	4189 /c	3931 /c
Per capita (in dollars)	465 /c	363 /c	310 /c
Manufacturing share /na (%)	14.2 /c	14.1 /c	13.9 /c
MANUFACTURING:			
Value added /na (in million dollars)	652 /c	590 /c	547 /c
Value added (in million dollars)	481	915	...
Industrial production index	100	60	34
Gross output (in million dollars)	1109	1772	...
Employment (in thousands)	77	80	69
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	57	48	...
Wages and salaries (%)	9	10	...
Operating surplus (%)	34	42	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	14392	22075	...
Value added / worker	6250	11436	...
Average wage	1285	2124	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	3.38	13.86	16.87
in percentage of θ in 1970-1975	124	509	620
Growth rate / structural change	0.04	-1.68	0.29
Degree of specialization	27.1	21.4	22.3
-VALUE ADDED: (in million dollars)			
311 Food products	61	106	...
313 Beverages	53	132	...
314 Tobacco products	47	114	...
321 Textiles	57	78	...
322 Wearing apparel	5	9	...
323 Leather and fur products	1	2	...
324 Footwear	5	4	...
331 Wood and wood products	39	56	...
332 Furniture and fixtures	5	6	...
341 Paper and paper products	3	3	...
342 Printing and publishing	10	16	...
351 Industrial chemicals	4	7	...
352 Other chemical products	21	32	...
353 Petroleum refineries	44	159	...
354 Misc. petroleum and coal products	-	-	...
355 Rubber products	11	17	...
356 Plastic products	3	4	...
361 Pottery, china and earthenware	1	2	...
362 Glass and glass products	2	-	...
369 Other non-metal mineral products	8	20	...
371 Iron and steel	3	5	...
372 Non-ferrous metals	62	102	...
381 Metal products	17	23	...
382 Non-electrical machinery	-	-	...
383 Electrical machinery	8	6	...
384 Transport equipment	10	11	...
385 Professional and scientific equipment	-	4	...
390 Other manufacturing industries	1	1	...

For source, footnotes and comments see "Technical notes" above.

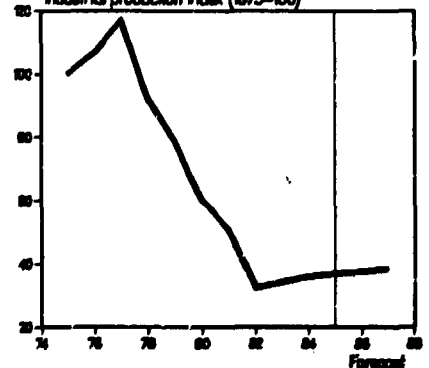
GDP per capita (1000\$)/c



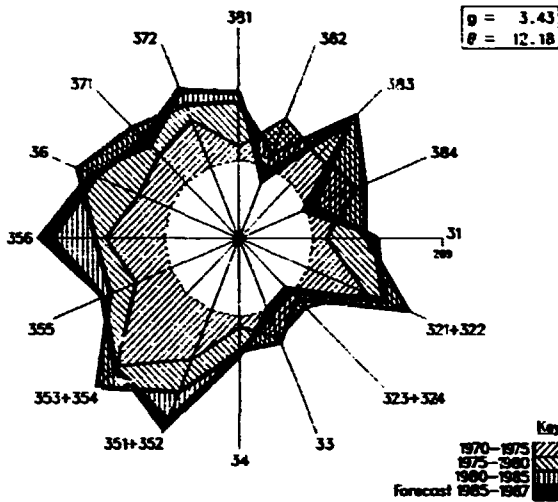
Manufacturing share in GDP (%) /c



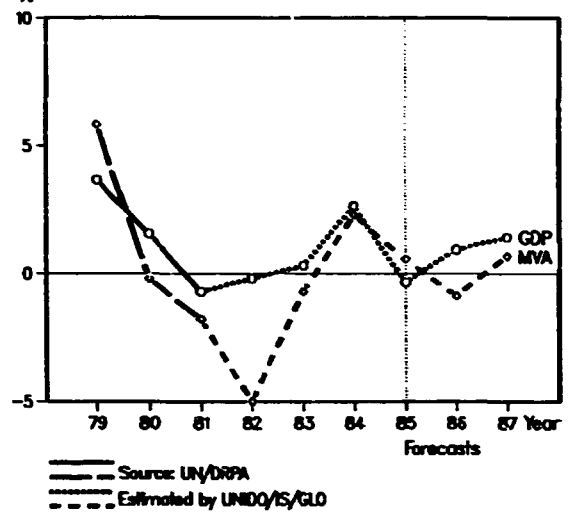
Industrial production index (1975=100)



Industrial structural change
(Index of value added: 1970=100)



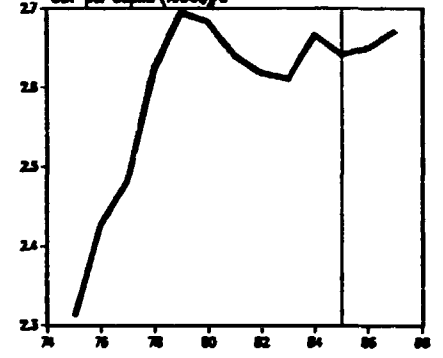
Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



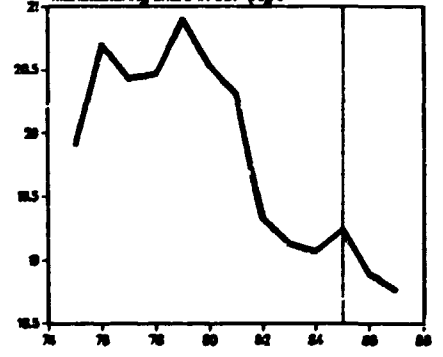
	1975	1980	1983
GDP: /na (in million dollars)	20925 /c	25862 /c	25715 /c
Per capita (in dollars)	2312 /c	2683 /c	2611 /c
Manufacturing share /na (%)	19.9 /c	20.5 /c	19.1 /c
MANUFACTURING:			
Value added /na (in million dollars)	4165 /c	5309 /c	4920 /c
Value added (in million dollars)	3666	7737	...
Industrial production index	100	127	118
Gross output (in million dollars)	11651	25362	...
Employment (in thousands)	426	474	517
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	69	69	...
Wages and salaries (%)	11	12	...
Operating surplus (%)	20	19	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	27358	53521	...
Value added / worker	8608	16328	...
Average wage	3086	6320	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	5.70	3.10	3.96
in percentage of θ in 1970-1975	113	61	79
Growth rate / structural change	1.03	0.08	-0.53
Degree of specialization	9.8	11.0	11.2
-VALUE ADDED: (in million dollars)			
311 Food products	553	1086	...
313 Beverages	111	257	...
314 Tobacco products	63	140	...
321 Textiles	546	1073	...
322 Wearing apparel	169	445	...
323 Leather and fur products	42	90	...
324 Footwear	53	120	...
331 Wood and wood products	109	268	...
332 Furniture and fixtures	79	135	...
341 Paper and paper products	63	126	...
342 Printing and publishing	93	199	...
351 Industrial chemicals	137	190	...
352 Other chemical products	163	330	...
353 Petroleum refineries	87	153	...
354 Misc. petroleum and coal products	12	32	...
355 Rubber products	25	68	...
356 Plastic products	101	216	...
361 Pottery, china and earthenware	35	66	...
362 Glass and glass products	20	54	...
369 Other non-metal mineral products	207	561	...
371 Iron and steel	99	201	...
372 Non-ferrous metals	123	245	...
381 Metal products	244	555	...
382 Non-electrical machinery	111	182	...
383 Electrical machinery	195	343	...
384 Transport equipment	205	536	...
385 Professional and scientific equipment	7	8	...
390 Other manufacturing industries	25	59	...

For source, footnotes and comments see "Technical notes" above.

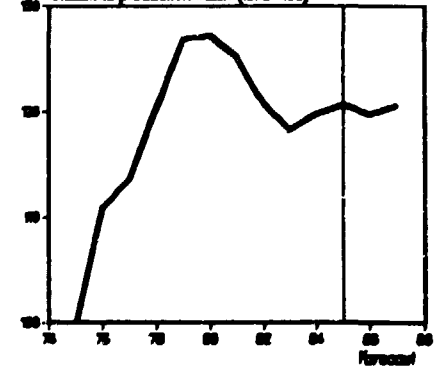
GDP per capita (1000\$)/c



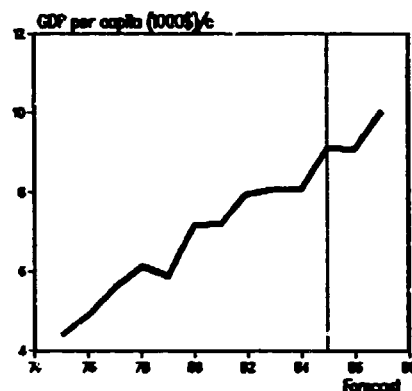
Manufacturing share in GDP (%)



Industrial production index (1975=100)

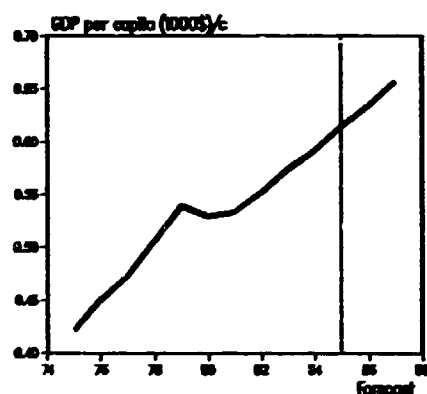


	1975	1980	1983
GDP: /na (in million dollars)	220 /c	359 /c	420 /c
Per capita (in dollars)	4400 /c	7180 /c	8077 /c
Manufacturing share /na (%)
MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
390 Other manufacturing industries



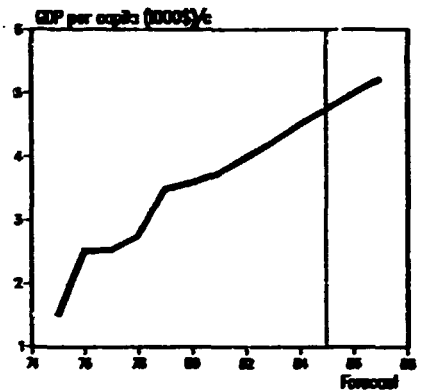
For source, footnotes and comments see "Technical notes" above.

	1975	1980	1983
GDP: /na (in million dollars)	44 /c	57 /c	63 /c
Per capita (in dollars)	422 /c	530 /c	574 /c
Manufacturing share /na (%)
MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
390 Other manufacturing industries



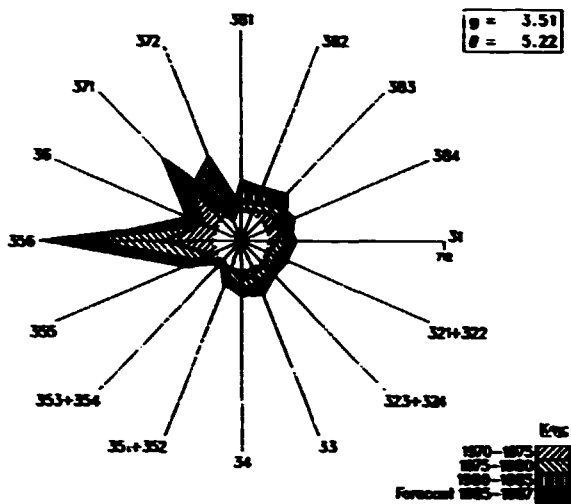
For source, footnotes and comments see "Technical notes" above.

	1975	1980	1983
GDP: /na (in million dollars)	490 /c	1175 /c	1392 /c
Per capita (in dollars)	1494 /c	3593 /c	4229 /c
Manufacturing share /na (%)
MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 wearing apparel
323 Leather and fur products
324 Footwear
331 wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
390 Other manufacturing industries

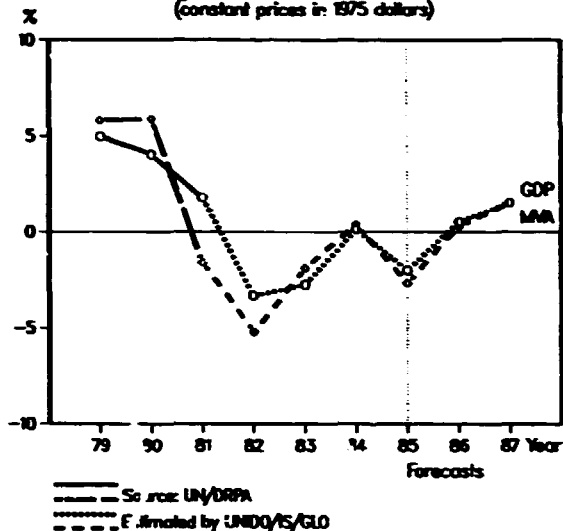


For source, footnotes and comments see "Technical notes" above.

Industrial structural change
(Index of value added: 1970=100)



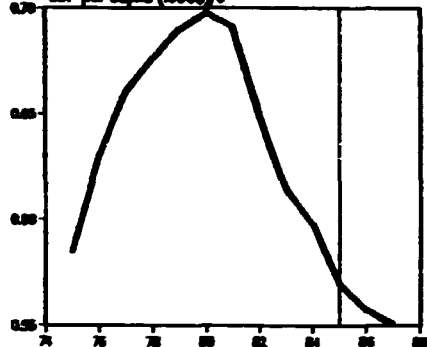
Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



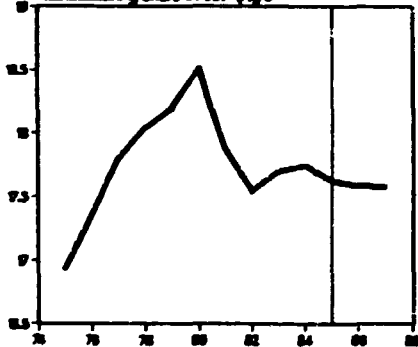
	1975	1980	1983
GDP: /na (in million dollars)	3646 /c	4829 /c	4623 /c
Per capita (in dollars)	584 /c	698 /c	615 /c
Manufacturing share /na (%)	16.9 /c	16.5 /c	17.7 /c
MANUFACTURING:			
Value added /na (in million dollars)	617 /c	894 /c	818 /c
Value added (in million dollars)	401	...	...
Industrial production index	100	132	147
Gross output (in million dollars)	1148	1948	...
Employment (in thousands)	68	85	...
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	65	...	...
wages and salaries (%)	8	...	...
Operating surplus (%)	27	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	16803	...	...
Value added / worker	5872	...	...
Average wage	1408	...	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	4.03	1.32	0.76
in percentage of θ in 1970-1975	154	51	29
Growth rate / structural change	-0.82	1.12	-2.14
Degree of specialization	25.7	25.4	25.7
-VALUE ADDED: (in million dollars)			
311 Food products	116	...	...
313 Beverages	33	...	...
314 Tobacco products	13	...	...
321 Textiles	36	...	...
322 wearing apparel	15	...	...
323 Leather and fur products	3	...	...
324 Footwear	5	...	...
331 wood and wood products	7	...	...
332 Furniture and fixtures	3	...	...
341 Paper and paper products	10	...	...
342 Printing and publishing	12	...	...
351 Industrial chemicals	20	...	...
352 Other chemical products	41	...	...
353 Petroleum refineries	5	...	...
354 Misc. petroleum and coal products	1	...	...
355 Rubber products	8	...	...
356 Plastic products	7	...	...
361 Pottery, china and earthenware	-	...	...
362 Glass and glass products	10	...	...
369 Other non-metal mineral products	20	...	...
371 Iron and steel	5	...	...
372 Non-ferrous metals	-	...	...
381 Metal products	14	...	...
382 Non-electrical machinery	3	...	...
383 Electrical machinery	7	...	...
384 Transport equipment	6	...	...
385 Professional and scientific equipment	-	...	...
390 Other manufacturing industries	2	...	...

For source, footnotes and comments see "Technical notes" above.

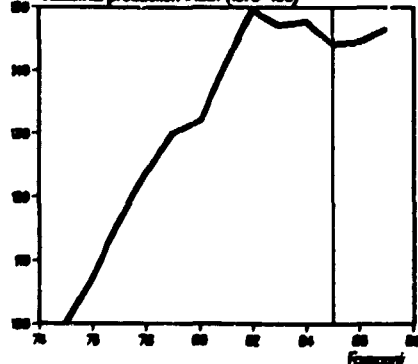
GDP per capita (000\$)/c



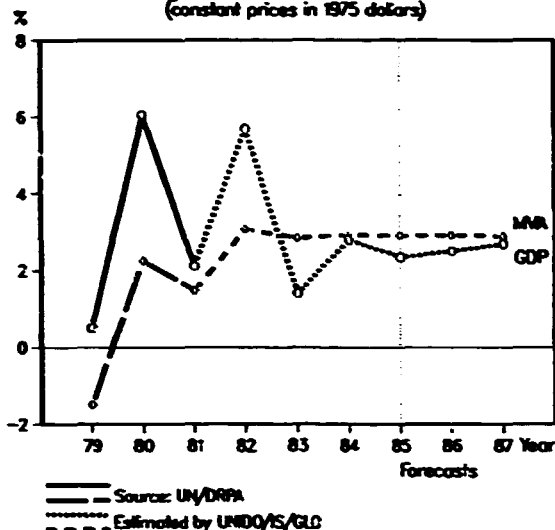
Manufacturing share in GDP (%)/c



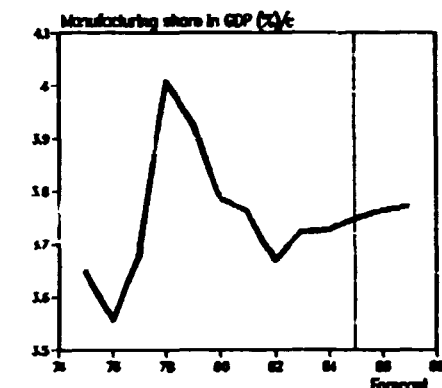
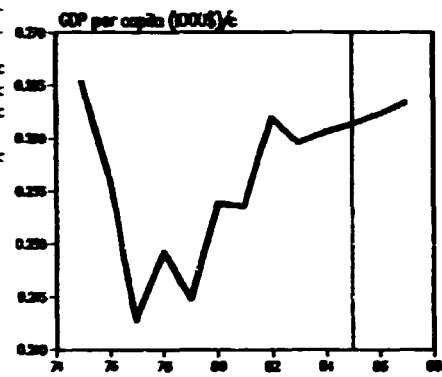
Industrial production index (1975=100)



Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



	1975	1980	1983
GDP: /na (in million dollars)	1152 /c	1373 /c	1503 /c
Per capita (in dollars)	265 /c	254 /c	260 /c
Manufacturing share /na (%)	3.7 /c	3.8 /c	3.7 /c
MANUFACTURING:			
Value added /na (in million dollars)	42 /c	52 /c	56 /c
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 wearing apparel
323 Leather and fur products
324 Footwear
331 wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
390 Other manufacturing industries



For source, footnotes and comments see "Technical notes" above.

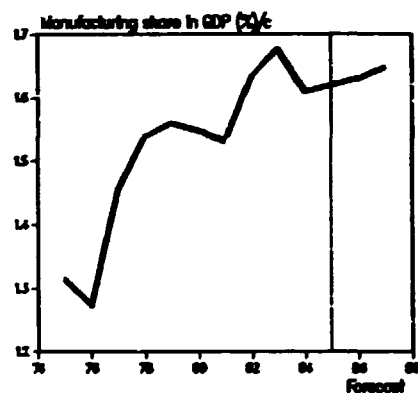
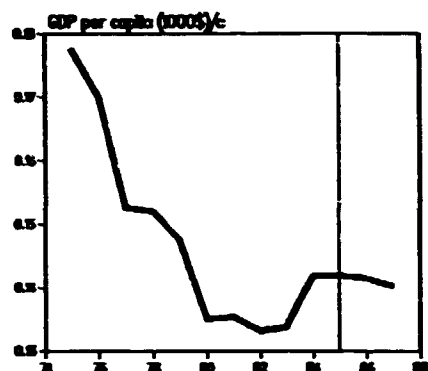
Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



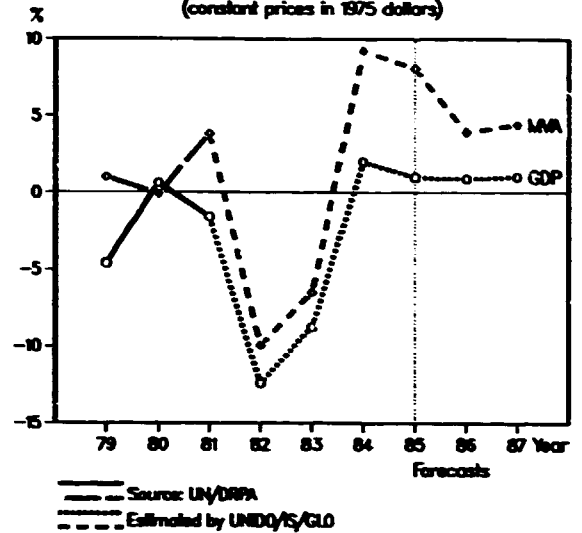
Source: UN/DRPA
Estimated by UNDP/ES/GLO

	1975	1980	1983
GDP: /na (in million dollars)	112 /c	109 /c	115 /c
Per capita (in dollars)	178 /c	135 /c	134 /c
Manufacturing share /na (%)	1.3 /c	1.5 /c	1.7 /c
MANUFACTURING:			
Value added /na (in million dollars)	1 /c	2 /c	2 /c
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
280 Other manufacturing industries

For source, footnotes and comments see "Technical notes" above.

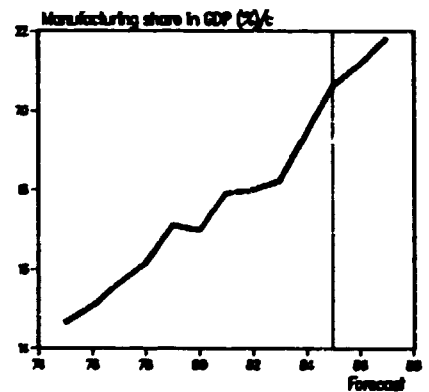
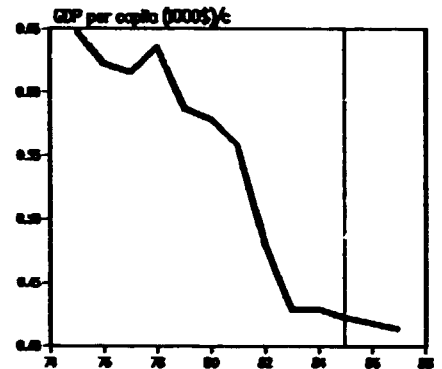


Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

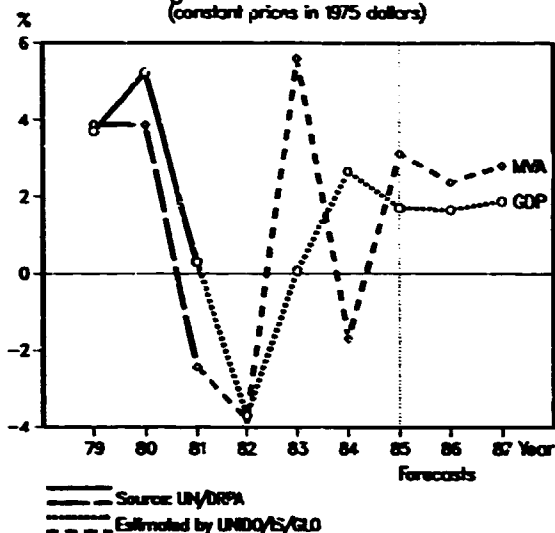


	1975	1980	1983
GDP: /na (in million dollars)	507 /c	501 /c	394 /c
Per capita (in dollars)	649 /c	579 /c	429 /c
Manufacturing share /na (%)	14.6 /c	17.0 /c	18.2 /c
MANUFACTURING:			
Value added /na (in million dollars)	74 /c	85 /c	72 /c
Value added (in million dollars)	47	...	...
Industrial production index	...	...	...
Gross output (in million dollars)	...	...	...
Employment (in thousands)	28	...	...
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	...	...	...
Wages and salaries (%)	...	...	...
Operating surplus (%)	...	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	...	...	...
Value added / worker	...	...	...
Average wage	...	...	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	...	...	...
in percentage of θ in 1970-1975	...	...	...
Growth rate / structural change	...	...	...
Degree of specialization	...	...	...
-VALUE ADDED: (in million dollars)			
311 Food products	34	...	...
313 Beverages	4	...	...
314 Tobacco products	1	...	...
321 Textiles	-	...	...
322 Wearing apparel	2	...	...
323 Leather and fur products	-	...	...
324 Footwear	-	...	...
331 Wood and wood products	3	...	...
332 Furniture and fixtures	1	...	...
341 Paper and paper products	-	...	...
342 Printing and publishing	1	...	...
351 Industrial chemicals	-	...	...
352 Other chemical products	-	...	...
353 Petroleum refineries	-	...	...
354 Misc. petroleum and coal products	-	...	...
355 Rubber products	-	...	...
356 Plastic products	-	...	...
361 Pottery, china and earthenware	-	...	...
362 Glass and glass products	-	...	...
369 Other non-metal mineral products	-	...	...
371 Iron and steel	-	...	...
372 Non-ferrous metals	-	...	...
381 Metal products	-	...	...
382 Non-electrical machinery	-	...	...
383 Electrical machinery	-	...	...
384 Transport equipment	-	...	...
385 Professional and scientific equipment	-	...	...
390 Other manufacturing industries	1	...	...

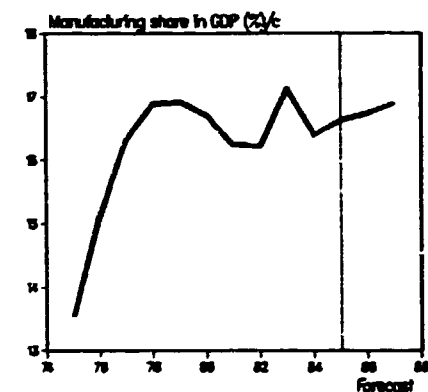
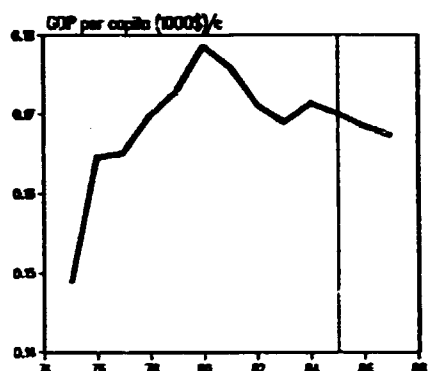
For source, footnotes and comments see "Technical notes" above.



Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

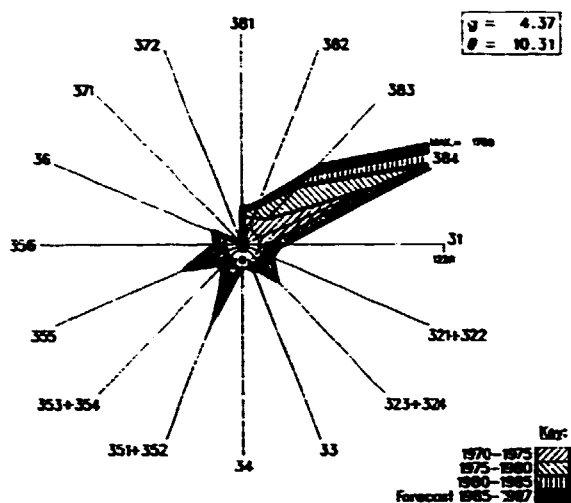


	1975	1980	1983
GDP: /na (in million dollars)	681 /c	895 /c	865 /c
Per capita (in dollars)	149 /c	179 /c	169 /c
Manufacturing share /na (%)	13.5 /c	16.7 /c	17.1 /c
MANUFACTURING:			
Value added /na (in million dollars)	92 /c	150 /c	148 /c
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)	18	25	30
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
389 Other manufacturing industries

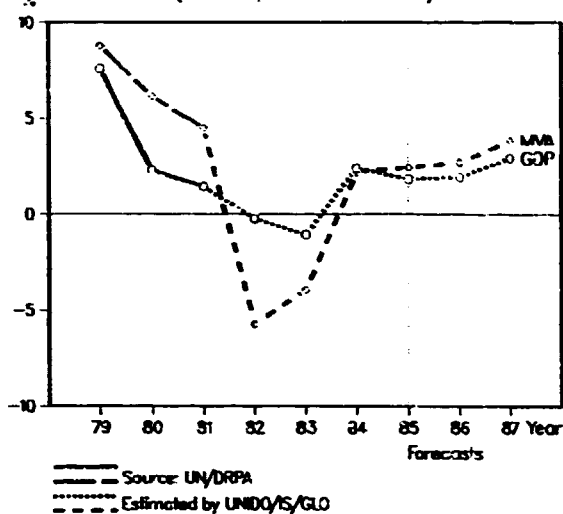


For source, footnotes and comments see "Technical notes" above.

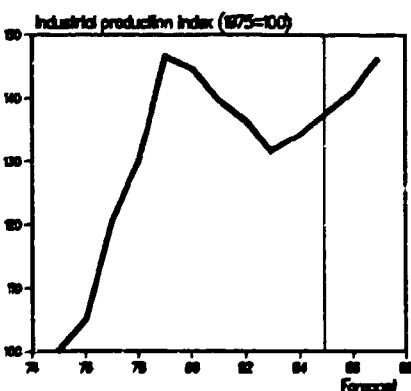
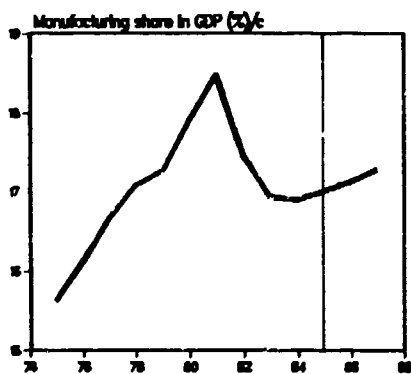
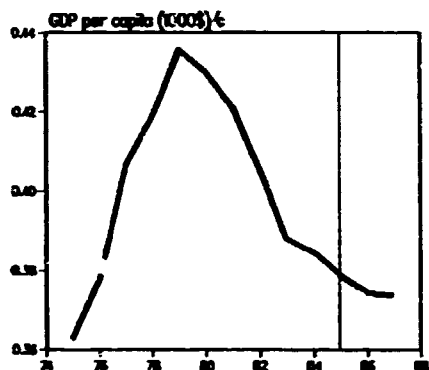
Industrial structural change
(Index of value added: 1970=100)



Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

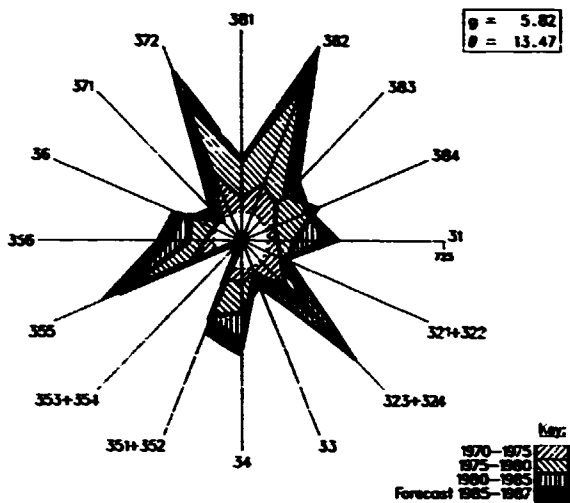


	1975	1980	1983
GDP: /na (in million dollars)	1121 /c	1586 /c	1588 /c
Per capita (in dollars)	363 /c	430 /c	388 /c
Manufacturing share /na (%)	15.6 /c	17.9 /c	16.9 /c
MANUFACTURING:			
Value added /na (in million dollars)	175 /c	284 /c	265 /c
Value added (in million dollars)	140	...	...
Industrial production index	100	145	132
Gross output (in million dollars)	493	...	...
Employment (in thousands)	37	54	66
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	72	...	...
Wages and salaries (%)	10	...	...
Operating surplus (%)	18	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	13411	...	...
Value added / worker	3821	...	...
Average wage	1382	...	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	4.00	6.85	1.23
in percentage of θ in 1970-1975	78	135	24
Growth rate / structural change	1.85	-0.19	-2.83
Degree of specialization	21.4	22.5	24.0
-VALUE ADDED: (in million dollars)			
311 Food products	36	...	...
313 Beverages	34	...	...
314 Tobacco products	10	...	...
321 Textiles	7	...	...
322 Wearing apparel	4	...	...
323 Leather and fur products	1	...	...
324 Footwear	1	...	...
331 Wood and wood products	11	...	...
332 Furniture and fixtures	2	...	...
341 Paper and paper products	2	...	...
342 Printing and publishing	3	...	...
351 Industrial chemicals	1	...	...
352 Other chemical products	5	...	...
353 Petroleum refineries	1	...	...
354 Misc. petroleum and coal products	-	...	...
355 Rubber products	3	...	...
356 Plastic products	3	...	...
361 Pottery, china and earthenware	-	...	...
362 Glass and glass products	-	...	...
369 Other non-metal mineral products	7	...	...
371 Iron and steel	-	...	...
372 Non-ferrous metals	-	...	...
381 Metal products	6	...	...
382 Non-electrical machinery	-	...	...
383 Electrical machinery	1	...	...
384 Transport equipment	-	...	...
385 Professional and scientific equipment	-	...	...
380 Other manufacturing industries	1	...	...

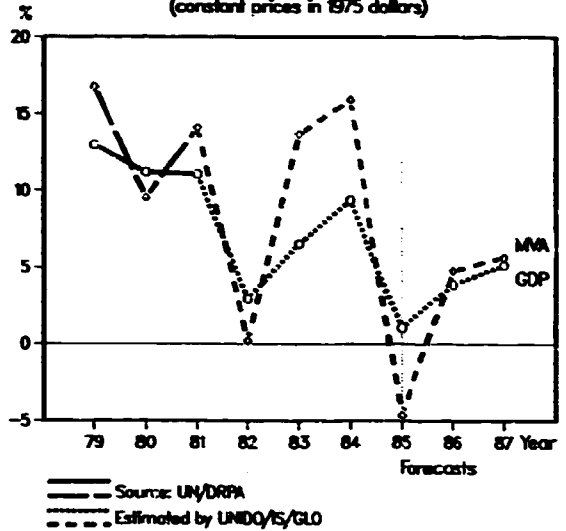


For source, footnotes and comments see "Technical notes" above.

Industrial structural change
(Index of value added: 1970=100)



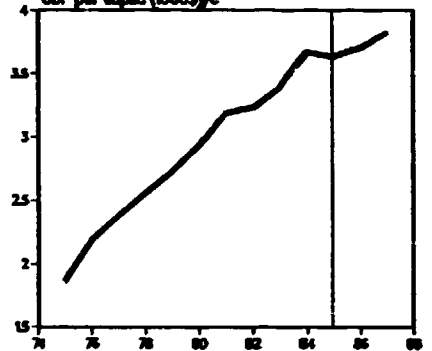
Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



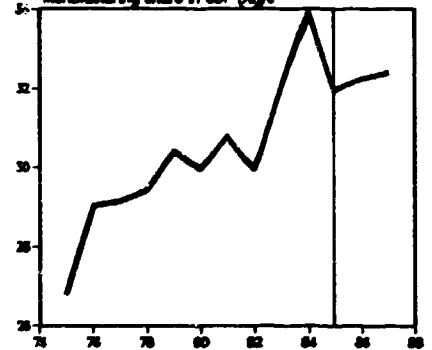
	1975	1980	1983
GDP: /na (in million dollars)	8'88 /c	14765 /c	17978 /c
Per capita (in dollars)	11.61 /c	2930 /c	3384 /c
Manufacturing share /na (%)	26.8 /c	30.0 /c	32.0 /c
MANUFACTURING:			
Value added /na (in million dollars)	2'94 /c	4423 /c	5748 /c
Value added (in million dollars)	2610	7666	...
Industrial production index	100	148	142
Gross output (in million dollars)	7448	23121	...
Employment (in thousands)	679	908	855
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	65	67	...
wages and salaries (%)	18	17	...
Operating surplus (%)	17	16	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	10974	25475	...
Value added / worker	3845	8446	...
Average wage	2006	4396	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	3.72	5.92	4.77
in percentage of θ in 1970-1975	54	86	69
Growth rate / structural change	2.09	0.64	2.70
Degree of specialization	32.3	24.8	23.5
-VALUE ADDED: (in million dollars)			
311 Food products	71	167	...
313 Beverages	39	98	...
314 Tobacco products	38	80	...
321 Textiles	528	1100	...
322 wearing appare)	676	1896	...
323 Leather and fur products	11	51	...
324 Footwear	15	58	...
331 Wood and wood products	27	51	...
332 Furniture and fixtures	26	71	...
341 Paper and paper products	31	119	...
342 Printing and publishing	98	310	...
351 Industrial chemicals	8	41	...
352 Other chemical products	33	78	...
353 Petroleum refineries	-	-	...
354 Misc. petroleum and coal products	...	...	...
355 Rubber products	19	30	...
356 Plastic products	218	601	...
361 Pottery, china and earthenware	2	6	...
362 Glass and glass products	5	11	...
369 Other non-metal mineral products	11	57	...
371 Iron and steel	19	31	...
372 Non-ferrous metals	10	35	...
381 Metal products	191	683	...
382 Non-electrical machinery	48	159	...
383 Electrical machinery	263	1086	...
384 Transport equipment	76	178	...
385 Professional and scientific equipment	56	391	...
390 Other manufacturing industries	83	229	...

For source, footnotes and comments see "Technical notes" above.

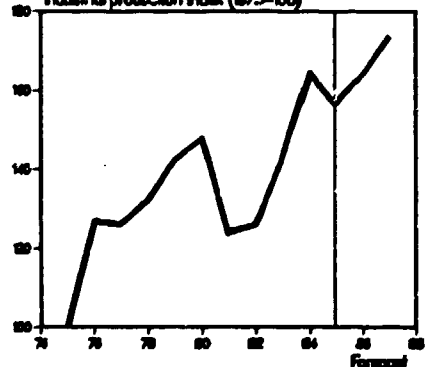
GDP per capita (1000\$)/c



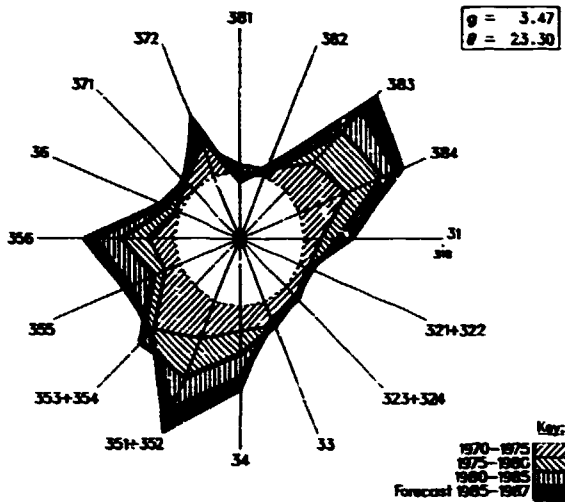
Manufacturing share in GDP (%)c



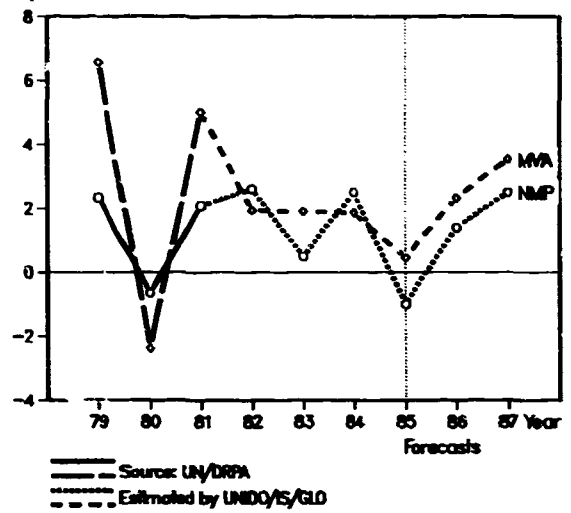
Industrial production index (1975=100)



Industrial structural change
(Index of value added: 1970=100)

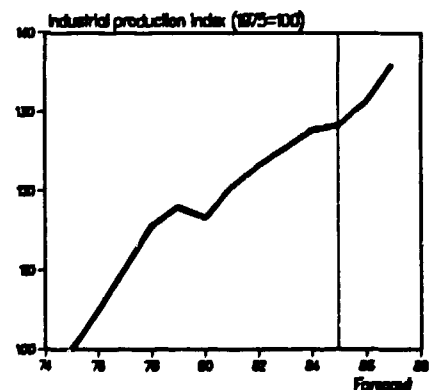
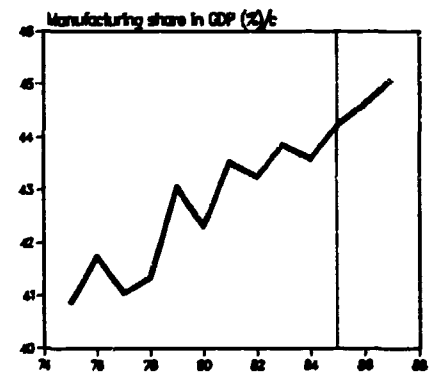
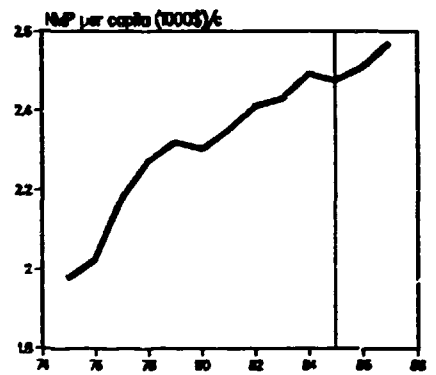


Annual growth rates of NMP and MVA
(constant prices in 1975 dollars)

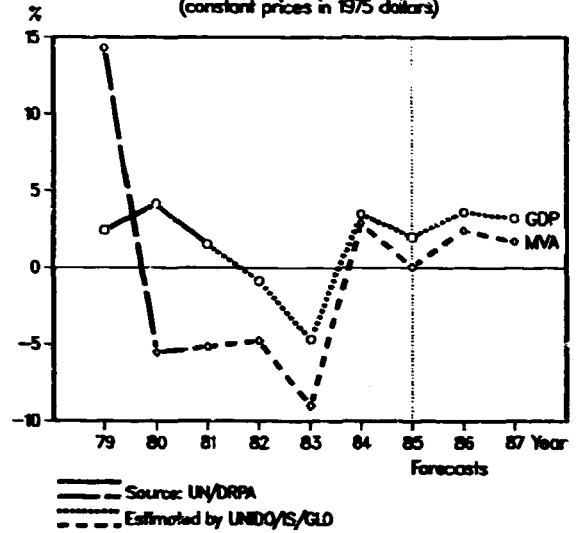


	1975	1980	1983
NMP: /na (in million dollars)	20827 /c	24862 /c	25961 /c
Per capita (in dollars)	1978 /c	2303 /c	2429 /c
Manufacturing share /na (%)	40.9 /c	42.3 /c	43.9 /c
MANUFACTURING:			
Value added /na (in million dollars)	8510 /c	10437 /c	11385 /c
Value added (in million dollars)	10175	8312	4955
Industrial production index	100	117	125
Gross output (in million dollars)	26919	35027	21158
Employment (in thousands)	1553	1384	1269
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	62	76	76
wages and salaries (%)	9	8	8
Operating surplus (%)	29	16	16
-PRODUCTIVITY: (in dollars)			
Gross output / worker	17334	25308	16437
Value added / worker	6552	6006	3919
Average wage	1523	2022	1247
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	2.16	1.76	1.78
in percentage of θ in 1970-1975	81	66	67
Growth rate / structural change	2.08	-0.65	0.95
Degree of specialization	9.5	9.9	10.3
-VALUE ADDED: (in million dollars)			
311 Food products	941	780	412
313 Beverages	244	117	107
314 Tobacco products	32	38	25
321 Textiles	601	497	303
322 Wearing apparel	283	273	146
323 Leather and fur products	85	68	38
324 Footwear	152	112	88
331 Wood and wood products	146	115	37
332 Furniture and fixtures	148	141	78
341 Paper and paper products	176	133	98
342 Printing and publishing	132	117	84
351 Industrial chemicals	565	587	278
352 Other chemical products	402	341	264
353 Petroleum refineries	398	218	99
354 Misc. petroleum and coal products	-	-	-
355 Rubber products	117	77	61
356 Plastic products	117	86	69
361 Pottery, china and earthenware	79	80	44
362 Glass and glass products	91	99	66
369 Other non-metal mineral products	296	287	169
371 Iron and steel	816	521	105
372 Non-ferrous metals	245	303	...
381 Metal products	424	301	185
382 Non-electrical machinery	9**	700	518
383 Electrical machinery	...	921	664
384 Transport equipment	...	684	447
385 Professional and scientific equipment	...	382	257
389 Other manufacturing industries	4**	13	166

For source, footnotes and comments see "Technical Notes" above.



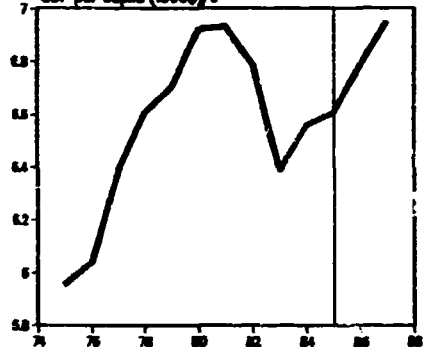
Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



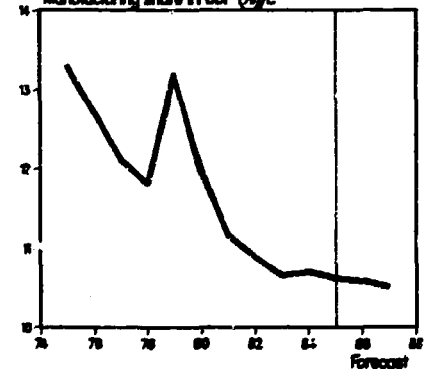
	1975	1980	1983
GDP: /na (in million dollars)	1298 /c	1578 /c	1514 /c
Per capita (in dollars)	5953 /c	6919 /c	6388 /c
Manufacturing share /na (%)	13.3 /c	12.0 /c	10.7 /c
MANUFACTURING:			
Value added /na (in million dollars)	173 /c	189 /c	161 /c
Value added (in million dollars)	150	383	...
Industrial production index	...	...	...
Gross output (in million dollars)	...	1008	...
Employment (in thousands)	13	15	16
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	...	...	...
wages and salaries (%)	...	...	...
Operating surplus (%)	...	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	...	...	...
Value added / worker	...	...	...
Average wage	...	...	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	...	...	...
in percentage of θ in 1970-1975	...	...	...
Growth rate / structural change	...	...	...
Degree of specialization	...	...	...
-VALUE ADDED: (in million dollars)			
311 Food products	16	42	...
313 Beverages	3	6	...
314 Tobacco products	...	...	...
321 Textiles	11	28	...
322 Wearing apparel	6	15	...
323 Leather and fur products	3	8	...
324 Footwear	-	1	...
331 Wood and wood products	-	-	...
332 Furniture and fixtures	17	41	...
341 Paper and paper products	2	4	...
342 Printing and publishing	14	32	...
351 Industrial chemicals	6	11	...
352 Other chemical products	3	9	...
353 Petroleum refineries	-	-	...
354 Misc. petroleum and coal products	-	-	...
355 Rubber products	1	5	...
356 Plastic products	4	9	...
361 Pottery, china and earthenware	1	1	...
362 Glass and glass products	1	2	...
369 Other non-metal mineral products	7	18	...
371 Iron and steel	-	-	...
372 Non-ferrous metals	13	54	...
381 Metal products	23 a	57 a	...
382 Non-electrical machinery	- a	- a	...
383 Electrical machinery	6	15	...
384 Transport equipment	10	21	...
385 Professional and scientific equipment	-	1	...
390 Other manufacturing industries	1	3	...

For source, footnotes and comments see "Technical notes" above.

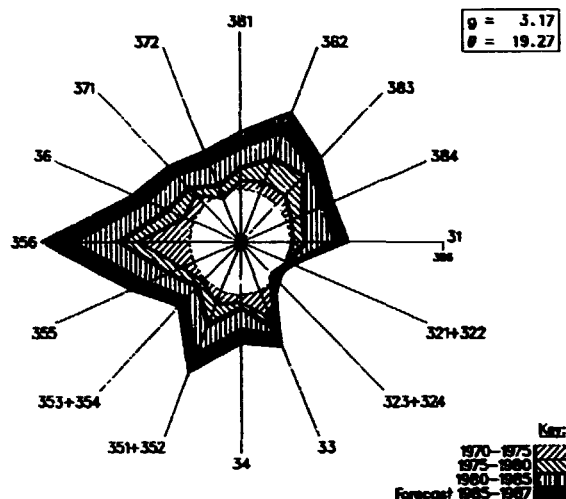
GDP per capita (1000\$)/c



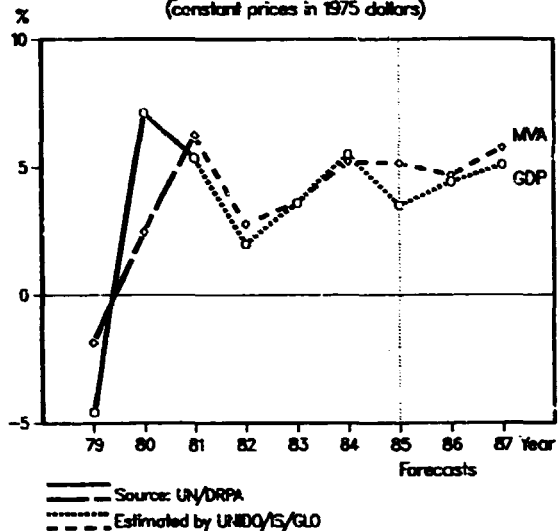
Manufacturing share in GDP (%) /c



Industrial structural change (index of value added: 1970=100)

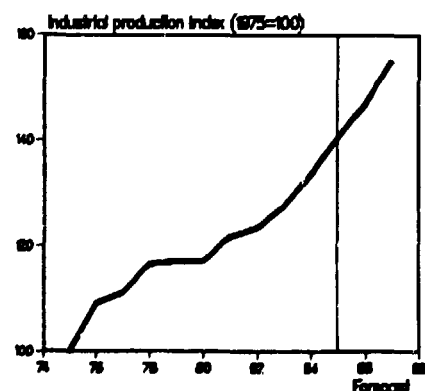
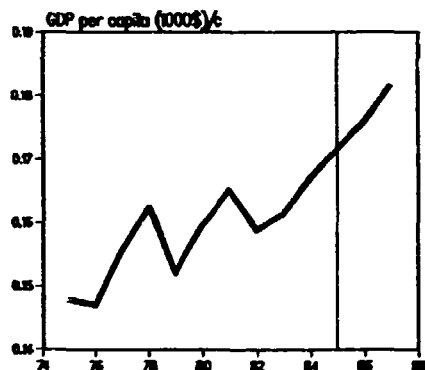


Annual growth rates of GDP and MVA (constant prices in 1975 dollars)

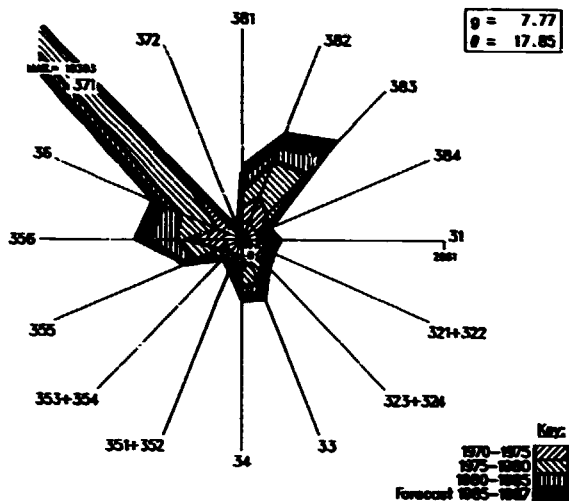


	1975	1980	1983
GDP: /na (in million dollars)	88814 /c	105955 /c	117966 /c
Per capita (in dollars)	148 /c	160 /c	161 /c
Manufacturing share /na (%)	15.6 /c	17.0 /c	17.3 /c
MANUFACTURING:			
Value added /na (in million dollars)	13872 /c	18029 /c	20397 /c
Value added (in million dollars)	7698	13090	...
Industrial production index	100	117	128
Gross output (in million dollars)	33189	71405	...
Employment (in thousands)	5690	6992	7700
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	77	82	...
Wages and salaries (%)	11	9	...
Operating surplus (%)	12	9	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	5833	10212	...
Value added / worker	1353	1872	...
Average wage	639	949	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	2.59	2.36	3.77
in percentage of θ in 1970-1975	78	71	114
Growth rate / structural change	1.05	0.04	0.86
Degree of specialization	15.9	15.4	14.8
-VALUE ADDED: (in million dollars)			
311 Food products	642	900	...
313 Beverages	42	99	...
314 Tobacco products	150	196	...
321 Textiles	1429	2643	...
322 Wearing apparel	27	62	...
323 Leather and fur products	26	48	...
324 Footwear	21	37	...
331 Wood and wood products	44	74	...
332 Furniture and fixtures	6	8	...
341 Paper and paper products	237	296	...
342 Printing and publishing	143	256	...
351 Industrial chemicals	566	778	...
352 Other chemical products	594	1062	...
353 Petroleum refineries	129	203	...
354 Misc. petroleum and coal products	88	152	...
355 Rubber products	160	234	...
356 Plastic products	36	93	...
361 Pottery, china and earthenware	18	47	...
362 Glass and glass products	43	67	...
369 Other non-metal mineral products	241	399	...
371 Iron and steel	897	1489	...
372 Non-ferrous metals	132	81	...
381 Metal products	225	421	...
382 Non-electrical machinery	622	1130	...
383 Electrical machinery	591	1061	...
384 Transport equipment	534	1088	...
385 Professional and scientific equipment	44	92	...
389 Other manufacturing industries	28	72	...

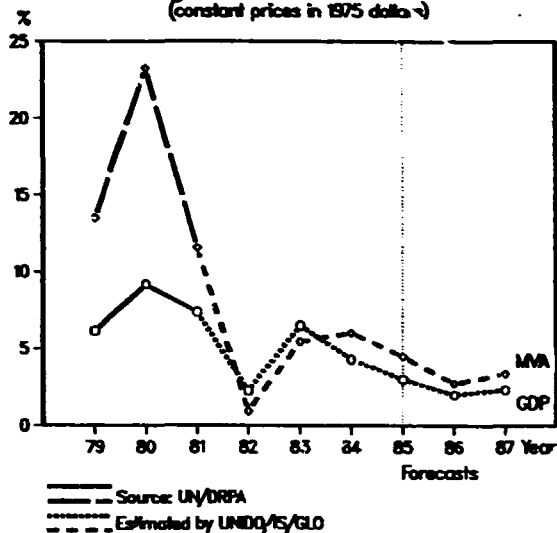
For source, footnotes and comments see "Technical notes" above.



Industrial structural change
(Index of value added: 1970=100)

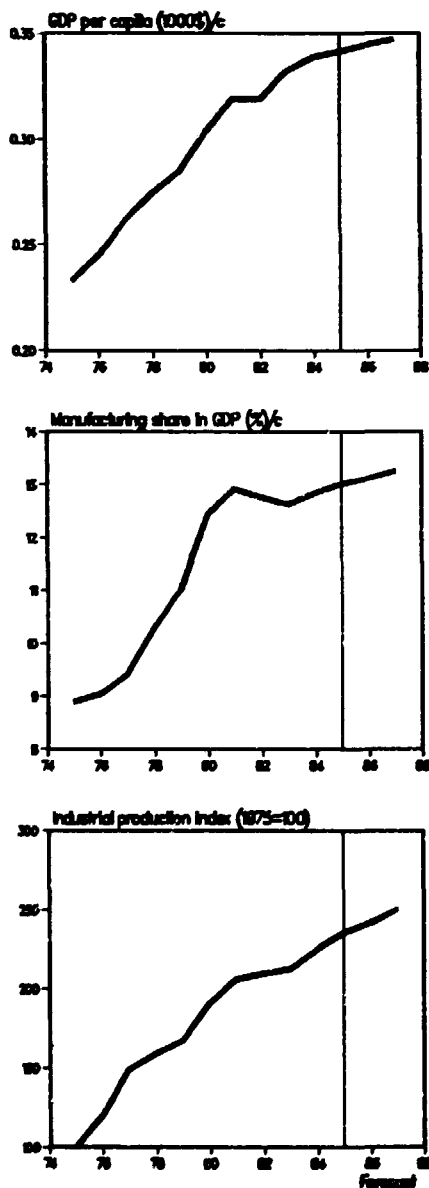


Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

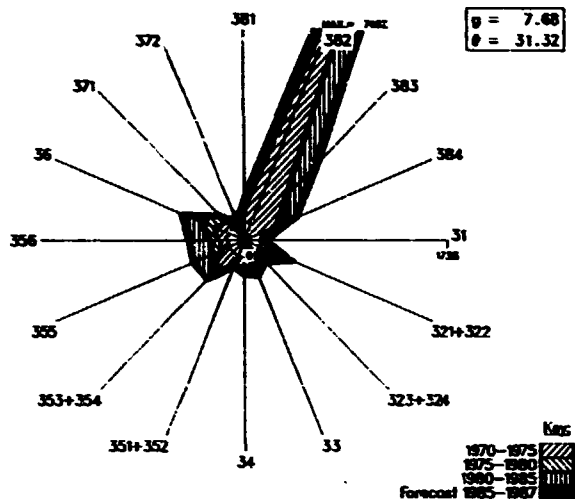


	1975	1980	1983
GDP: /na (in million dollars)	30468 /c	44411 /c	51943 /c
Per capita (in dollars)	233 /c	303 /c	332 /c
Manufacturing share /na (%)	8.9 /c	12.4 /c	12.6 /c
MANUFACTURING:			
Value added /na (in million dollars)	2708 /c	5526 /c	6561 /c
Value added (in million dollars)	1438	4390	...
Industrial production index	100	192	213
Gross output (in million dollars)	4554	10909	...
Employment (in thousands)	753	963	1107
- PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	66	69	...
Wages and salaries (%)	8	7	...
Operating surplus (%)	24	25	...
- PRODUCTIVITY: (in dollars)			
Gross output / worker	6034	11329	...
Value added / worker	1905	3539	...
Average wage	454	746	...
- STRUCTURAL INDICES:			
Structural change θ (in degrees)	6.48	4.62	2.46
in percentage of θ in 1970-1975	191	136	72
Growth rate / structural change	0.19	3.15	0.55
Degree of specialization	29.1	29.1	28.2
- VALUE ADDED: (in million dollars)			
311 Food products	289	377	...
313 Beverages	28	51	...
314 Tobacco products	158	651	...
321 Textiles	173	421	...
322 wearing apparel	2	15	...
323 Leather and fur products	3	5	...
324 Footwear	29	26	...
331 wood and wood products	40	240	...
332 Furniture and fixtures	4	6	...
341 Paper and paper products	19	51	...
342 Printing and publishing	22	51	...
351 Industrial chemicals	80	145	...
352 Other chemical products	59	242	...
353 Petroleum refineries	265	982	...
354 Misc. petroleum and coal products	-	-	...
355 Rubber products	21	164	...
356 Plastic products	13	25	...
361 Pottery, china and earthenware	2	8	...
362 Glass and glass products	7	36	...
369 Other non-metal mineral products	52	200	...
371 Iron and steel	3	107	...
372 Non-ferrous metals	10	...	...
381 Metal products	41	119	...
382 Non-electrical machinery	19	53	...
383 Electrical machinery	44	180	...
384 Transport equipment	48	218	...
385 Professional and scientific equipment	-	2	...
390 Other manufacturing industries	2	12	...

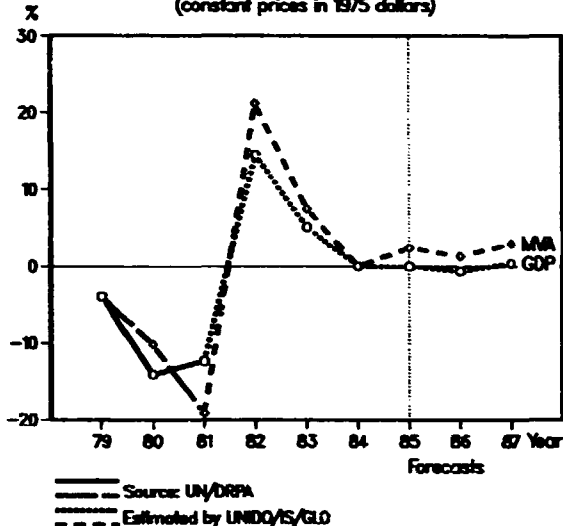
For source, footnotes and comments see "Technical notes" above.



Industrial structural change
(Index of value added: 1970=100)

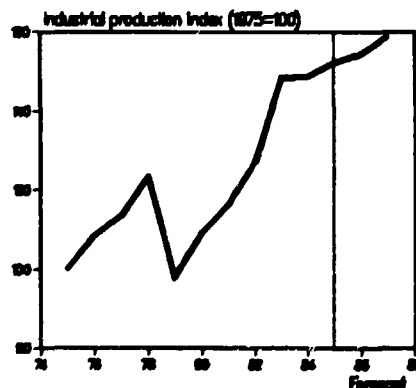
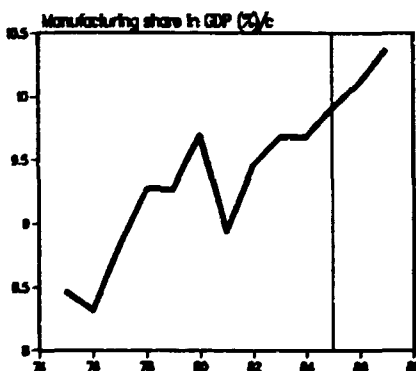
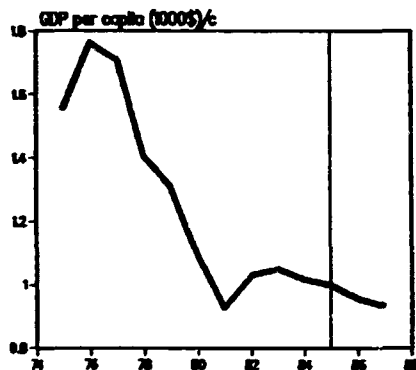


Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

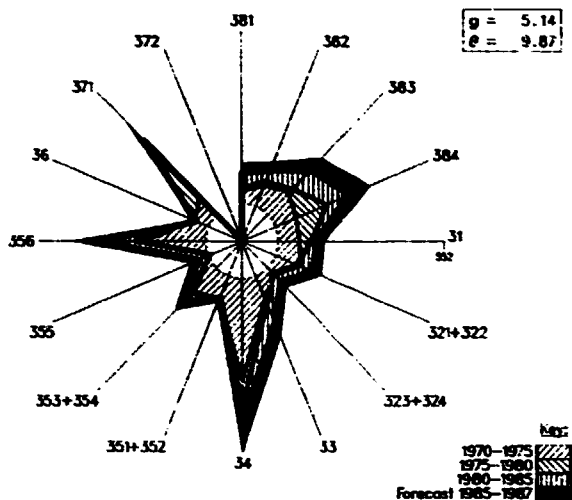


	1975	1980	1983
GDP: /na (in million dollars)	51833 /c	41846 /c	44157 /c
Per capita (in dollars)	1553 /c	1091 /c	1050 /c
Manufacturing share /na (%)	6.5 /c	9.7 /c	9.7 /c
MANUFACTURING:			
Value added /na (in million dollars)	4388 /c	4056 /c	4273 /c
Value added (in million dollars)	3153	7706	...
Industrial production index	100	109	148
Gross output (in million dollars)	7860	15801	...
Employment (in thousands)	419	468	...
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	60	51	...
Wages and salaries (%)	11	29	...
Operating surplus (%)	29	20	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	18764	33799	...
Value added / worker	7527	16483	...
Average wage	2062	9696	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	11.54	6.69	4.04
in percentage of θ in 1970-1975	163	94	57
Growth rate / structural change	1.98	1.74	4.12
Degree of specialization	19.0	19.3	15.4
-VALUE ADDED: (in million dollars)			
311 Food products	454	930	...
313 Beverages	43	145	...
314 Tobacco products	146	112	...
321 Textiles	443	1329	...
322 Wearing apparel	9	78	...
323 Leather and fur products	23	36	...
324 Footwear	39	100	...
331 Wood and wood products	28	68	...
332 Furniture and fixtures	14	33	...
341 Paper and paper products	54	135	...
342 Printing and publishing	62	80	...
351 Industrial chemicals	131	93	...
352 Other chemical products	150	278	...
353 Petroleum refineries	51	1251	...
354 Misc. petroleum and coal products	1	2	...
355 Rubber products	47	83	...
356 Plastic products	30	198	...
361 Pottery, china and earthenware	16	45	...
362 Glass and glass products	60	115	...
369 Other non-metal mineral products	367	819	...
371 Iron and steel	238	367	...
372 Non-ferrous metals	22	48	...
381 Metal products	184	319	...
382 Non-electrical machinery	84	208	...
383 Electrical machinery	230	391	...
384 Transport equipment	219	399	...
385 Professional and scientific equipment	5	24	...
386 Other manufacturing industries	1	11	...

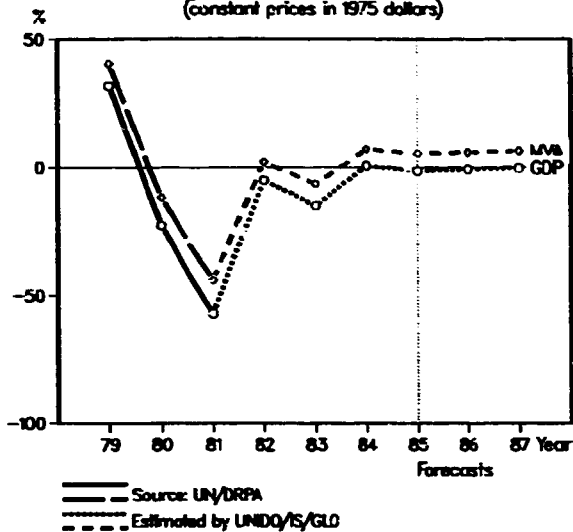
For source, footnotes and comments see "Technical notes" above.



Industrial structural change
(Index of value added: 1970=100)

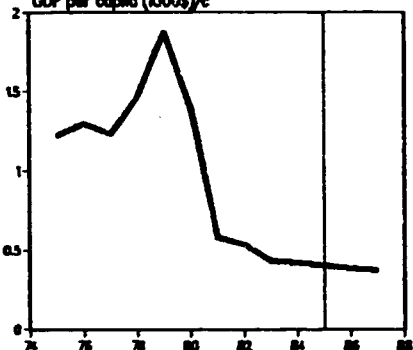


Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

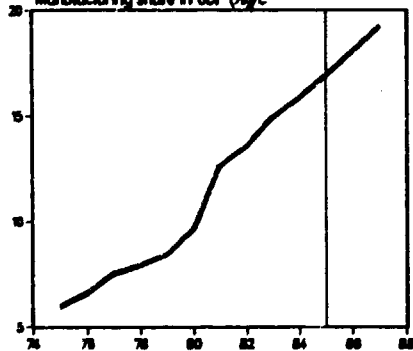


	1975	1980	1983
GDP: /na (in million dollars)	13619 /c	18567 /c	6429 /c
Per capita (in dollars)	1225 /c	1402 /c	434 /c
Manufacturing share /na (%)	6.0 /c	9.7 /c	14.9 /c
MANUFACTURING:			
Value added /na (in million dollars)	818 /c	1792 /c	958 /c
Value added (in million dollars)	533	...	...
Industrial production index	100	107	113
Gross output (in million dollars)	1449	...	...
Employment (in thousands)	133	177	...
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	63	...	...
Wages and salaries (%)	14	...	...
Operating surplus (%)	23	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	10898	...	...
Value added / worker	4013	...	...
Average wage	1526	...	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	9.19	7.94	1.16
in percentage of θ in 1970-1975	123	106	16
Growth rate / structural change	1.07	-2.32	-5.65
Degree of specialization	14.0	13.6	13.8
-VALUE ADDED: (in million dollars)			
311 Food products	57	...	...
313 Beverages	45	...	...
314 Tobacco products	68	...	...
321 Textiles	64	...	...
322 Wearing apparel	14	...	...
323 Leather and fur products	4	...	...
324 Footwear	9	...	...
331 Wood and wood products	-	...	...
332 Furniture and fixtures	2	...	...
341 Paper and paper products	12	...	...
342 Printing and publishing	7	...	...
351 Industrial chemicals	14	...	...
352 Other chemical products	33	...	...
353 Petroleum refineries	73	...	...
354 Misc. petroleum and coal products	5	...	...
355 Rubber products	1	...	...
356 Plastic products	2	...	...
361 Pottery, china and earthenware	-	...	...
362 Glass and glass products	5	...	...
369 Other non-metal mineral products	48	...	...
371 Iron and steel	1	...	...
372 Non-ferrous metals	-	...	...
381 Metal products	8	...	...
382 Non-electrical machinery	14	...	...
383 Electrical machinery	23	...	...
384 Transport equipment	22	...	...
385 Professional and scientific equipment	-	...	...
389 Other manufacturing industries	-	...	...

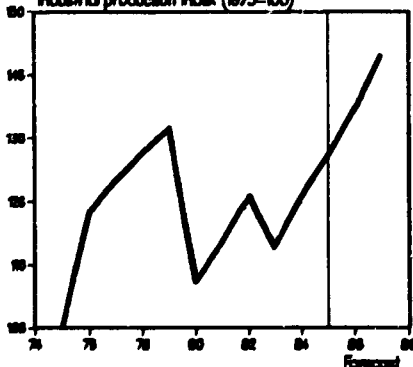
GDP per capita (1000\$/c)



Manufacturing share in GDP (%)

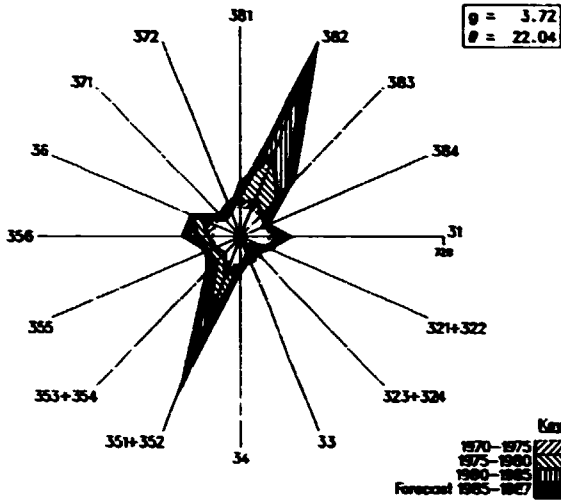


Industrial production index (1975=100)

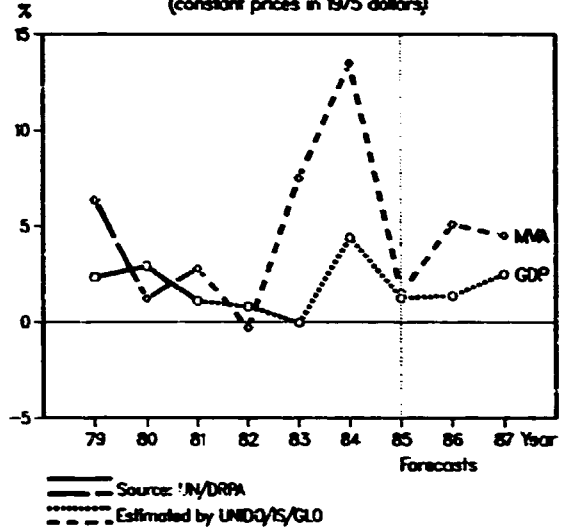


For source, footnotes and comments see "Technical notes" above.

Industrial structural change
(Index of value added: 1970=100)



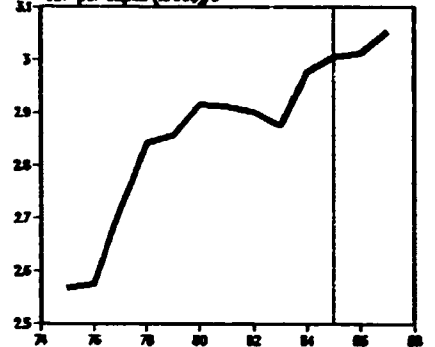
Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



	1975	1980	1983
GDP: /na (in million dollars)	8167 /c	9909 /c	10093 /c
Per capita (in dollars)	2566 /c	2914 /c	2676 /c
Manufacturing share /na (%)	24.0 /c	27.7 /c	30.0 /c
MANUFACTURING:			
Value added /na (in million dollars)	1961 /c	2747 /c	3026 /c
Value added (in million dollars)	2295	5688	...
Industrial production index	100	126	133
Gross output (in million dollars)	6740	15897	...
Employment (in thousands)	194	225	...
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	66	64	...
Wages and salaries (%)	16	16	...
Operating surplus (%)	18	20	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	34796	70685	...
Value added / worker	11850	25290	...
Average wage	5453	11054	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	4.01	2.99	4.11
in percentage of θ in 1970-1975	144	107	148
Growth rate / structural change	-1.24	-0.94	1.01
Degree of specialization	17.6	17.4	19.1
-VALUE ADDED: (in million dollars)			
311 Food products	603	1263	...
313 Beverages	189	327	...
314 Tobacco products	44	83	...
321 Textiles	142	266	...
322 Wearing apparel	85	147	...
323 Leather and fur products	20	28	...
324 Footwear	24	42	...
331 Wood and wood products	35	91	...
332 Furniture and fixtures	20	59	...
341 Paper and paper products	59	104	...
342 Printing and publishing	104	265	...
351 Industrial chemicals	59	236	...
352 Other chemical products	133	536	...
353 Petroleum refineries	10	22	...
354 Misc. petroleum and coal products	-	-	...
355 Rubber products	26	52	...
356 Plastic products	37	113	...
361 Pottery, china and earthenware	15	28	...
362 Glass and glass products	43	109	...
369 Other non-metal mineral products	135	320	...
371 Iron and steel	25	31	...
372 Non-ferrous metals	9	15	...
381 Metal products	101	335	...
382 Non-electrical machinery	97	474	...
383 Electrical machinery	91	311	...
384 Transport equipment	114	179	...
385 Professional and scientific equipment	65	170	...
280 Other manufacturing industries	9	29	...

For source, footnotes and comments see "Technical notes" above.

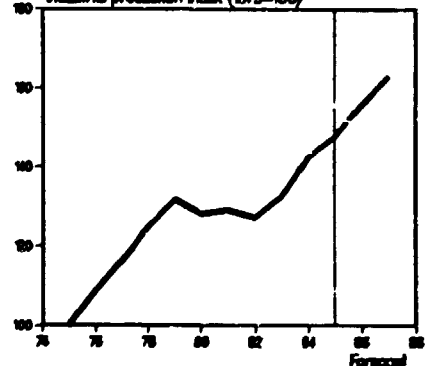
GDP per capita (1000)€



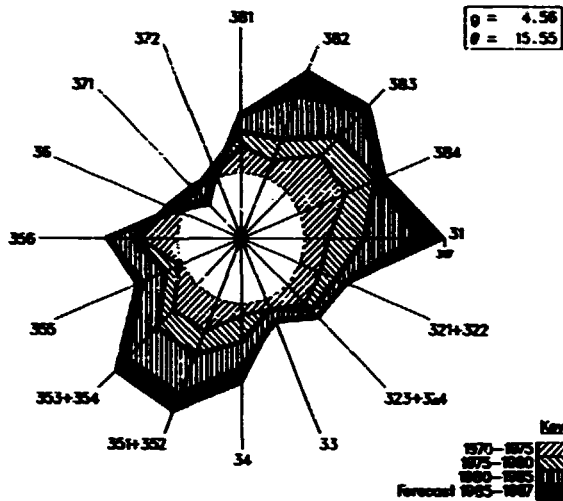
Manufacturing share in GDP (%)€



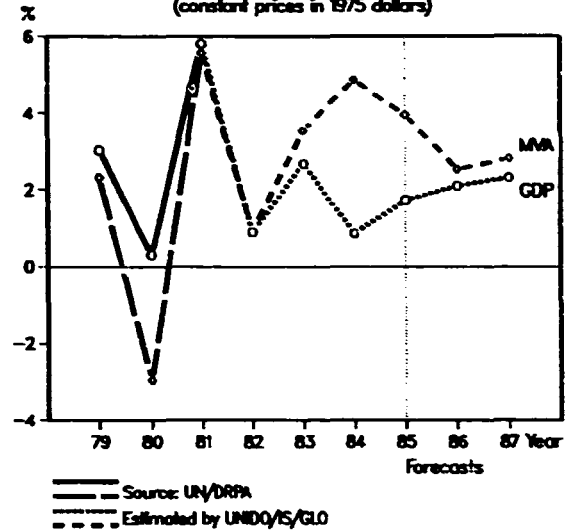
Industrial production index (1975=100)



Industrial structural change (Index of value added: 1970=100)



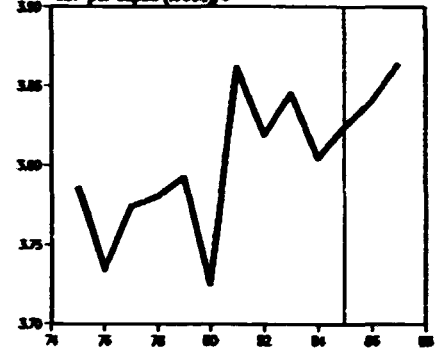
Annual growth rates of GDP and MVA (constant prices in 1975 dollars)



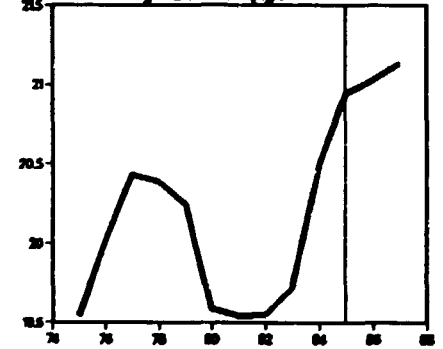
	1975	1980	1983
GDP: /na (in million dollars)	13063 /c	14417 /c	15803 /c
Per capita (in dollars)	3786 /c	3725 /c	3845 /c
Manufacturing share /na (%)	19.5 /c	19.6 /c	19.7 /c
MANUFACTURING:			
Value added /na (in million dollars)	2553 /c	2824 /c	3116 /c
Value added (in million dollars)	3022	6490	...
Industrial production index	100	120	133
Gross output (in million dollars)	7452	14332	14983
Employment (in thousands)	245	259	279
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	59	55	...
Wages and salaries (%)	14	24	...
Operating surplus (%)	26	21	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	30433	55422	...
Value added / worker	12343	25096	...
Average wage	4375	13433	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	3.15	1.79	2.30
in percentage of θ in 1970-1975	96	54	70
Growth rate / structural change	1.16	-2.27	1.94
Degree of specialization	12.7	13.7	14.1
-VALUE ADDED: (in million dollars)			
311 Food products	226	706	...
313 Beverages	69	66	...
314 Tobacco products	82	24	...
321 Textiles	195	422	...
322 Wearing apparel	118	293	...
323 Leather and fur products	7	18	...
324 Footwear	18	38	...
331 Wood and wood products	68	112	...
332 Furniture and fixtures	49	90	...
341 Paper and paper products	84	150	...
342 Printing and publishing	101	184	...
351 Industrial chemicals	130	292	...
352 Other chemical products	132	250	...
353 Petroleum refineries	33	75	...
354 Misc. petroleum and coal products	33	75	...
355 Rubber products	49	104	...
356 Plastic products	88	212	...
361 Pottery, china and earthenware	22	26	...
362 Glass and glass products	25	30	...
369 Other non-metal mineral products	156	239	...
371 Iron and steel	53	148	...
372 Non-ferrous metals	56	61	...
381 Metal products	369	1060	...
382 Non-electrical machinery	160	245	...
383 Electrical machinery	313	831	...
384 Transport equipment	279	610	...
385 Professional and scientific equipment	27	66	...
389 Other manufacturing industries	82	63	...

For source, footnotes and comments see "Technical notes" above.

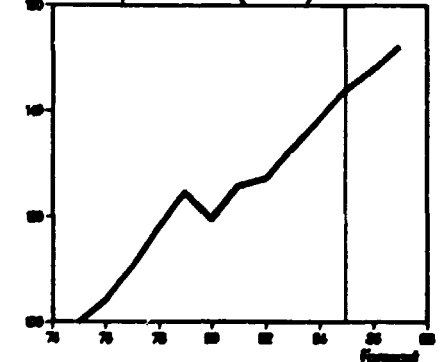
GDP per capita (000\$/c)



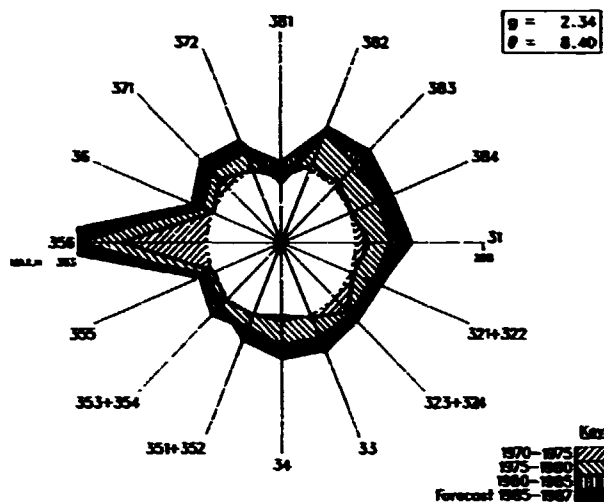
Manufacturing share in GDP (%)



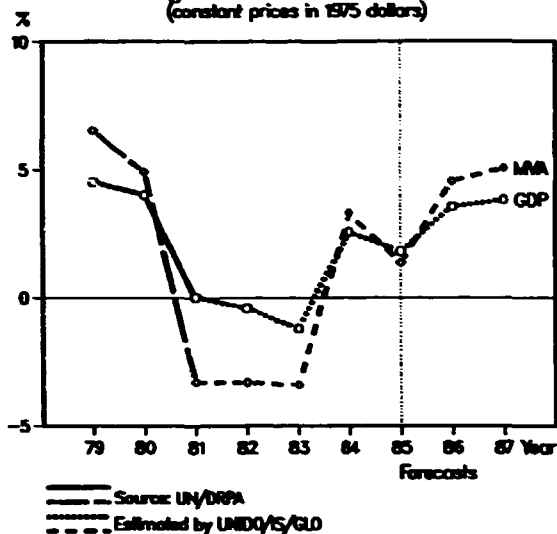
Industrial production index (1975=100)



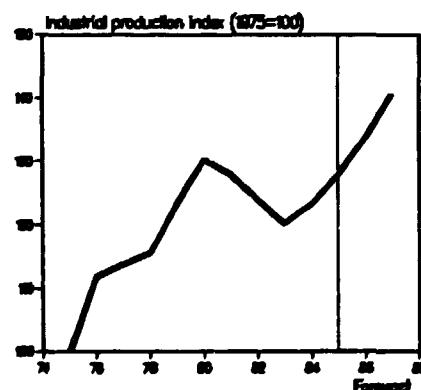
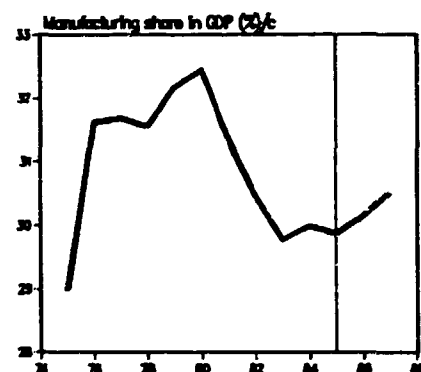
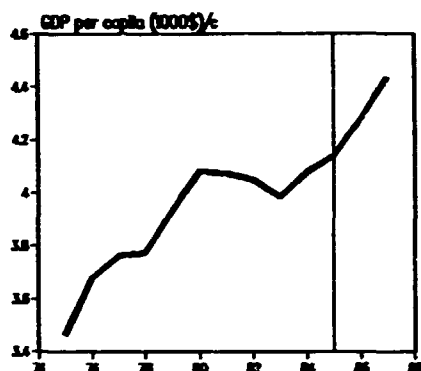
Industrial structural change
(Index of value added: 1970=100)



Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

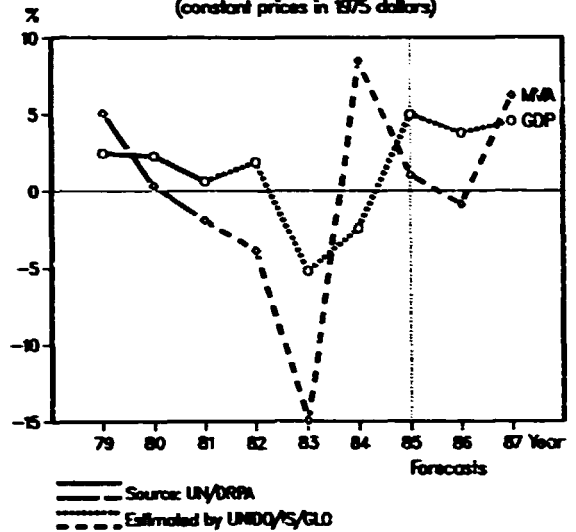


	1975	1980	1983
GDP: /na (in million dollars)	182079 /c	230180 /c	226561 /c
Per capita (in dollars)	3465 /c	4080 /c	3986 /c
Manufacturing share /na (%)	29.0 /c	32.4 /c	29.8 /c
MANUFACTURING:			
Value added /na (in million dollars)	55667 /c	74679 /c	67463 /c
Value added (in million dollars)	51010	97231	...
Industrial production index	100	130	120
Gross output (in million dollars)	122836	251426	...
Employment (in thousands)	3582	3333	3124
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	58	61	...
Wages and salaries (%)	16	15	...
Operating surplus (%)	25	24	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	34292	75435	...
Value added / worker	14241	29172	...
Average wage	5654	10948	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	2.55	2.39	2.62
in percentage of θ in 1970-1975	88	83	91
Growth rate / structural change	-4.54	2.40	-1.11
Degree of specialization	7.3	7.7	7.9
-VALUE ADDED: (in million dollars)			
311 Food products	3312	6375	...
312 Beverages	1042	1675	...
314 Tobacco products	176	308	...
321 Textiles	3390	6730	...
322 Wearing apparel	1619	3203	...
323 Leather and fur products	326	720	...
324 Footwear	680	1488	...
331 Wood and wood products	573	1321	...
332 Furniture and fixtures	806	1940	...
341 Paper and paper products	1126	2265	...
342 Printing and publishing	1595	3023	...
351 Industrial chemicals	3683	6475	...
352 Other chemical products	2465	3969	...
353 Petroleum refineries	791	1295	...
354 Misc. petroleum and coal products	49	41	...
355 Rubber products	1022	1836	...
356 Plastic products	979	1468	...
361 Pottery, china and earthenware	821	1975	...
362 Glass and glass products	489	1072	...
369 Other non-metal mineral products	1743	3648	...
371 Iron and steel	4308	8371	...
372 Non-ferrous metals	741	1317	...
381 Metal products	2869	5699	...
382 Non-electrical machinery	4852	9345	...
383 Electrical machinery	4547	8452	...
384 Transport equipment	5526	10301	...
385 Professional and scientific equipment	1046	2036	...
389 Other manufacturing industries	432	872	...



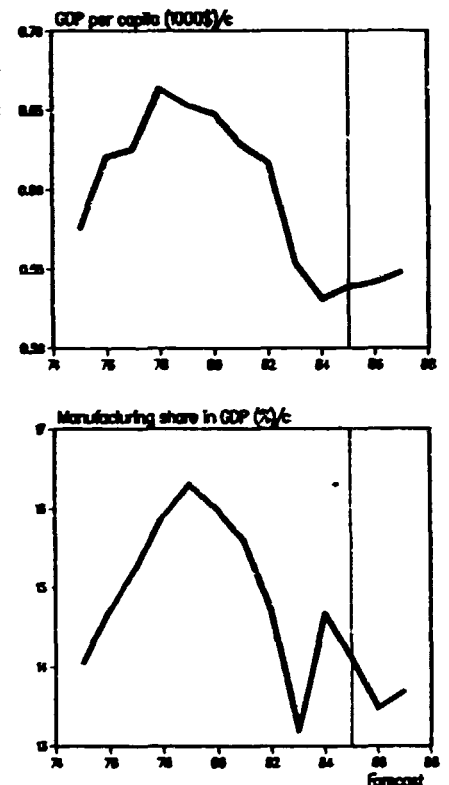
For source, footnotes and comments see "Technical notes" above.

Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

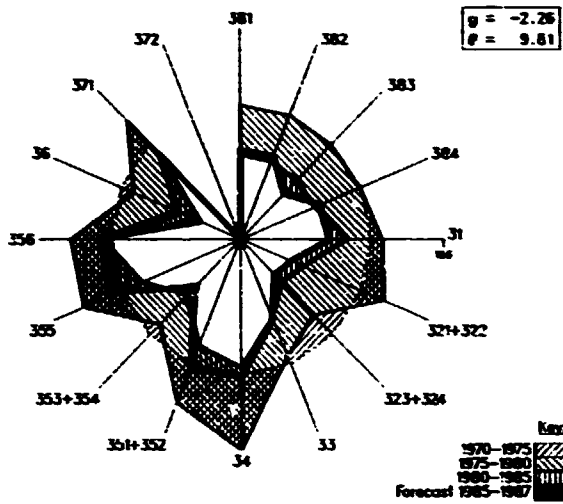


	1975	1980	1983
GDP: /na (in million dollars)	3894 /c	5294 /c	5147 /c
Per capita (in dollars)	575 /c	648 /c	553 /c
Manufacturing share /na (%)	14.0 /c	16.0 /c	13.2 /c
MANUFACTURING:			
Value added /na (in million dollars)	547 /c	846 /c	679 /c
Value added (in million dollars)	436	1275	...
Industrial production index	...	...	...
Gross output (in million dollars)	1418	4011	...
Employment (in thousands)	49	67	55
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	69	68	...
wages and salaries (%)	9	10	...
Operating surplus (%)	22	22	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	28721	59719	...
Value added / worker	8835	18978	...
Average wage	2631	5752	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	...	...	...
in percentage of θ in 1970-1975	...	...	...
Growth rate / structural change	...	...	...
Degree of specialization	...	...	...
-VALUE ADDED: (in million dollars)			
311 Food products	79	303	...
313 Beverages	20	75	...
314 Tobacco products	17	66	...
321 Textiles	66	170	...
322 Wearing apparel	3	8	...
323 Leather and fur products	5 a	10 a	...
324 Footwear	- a	- a	...
331 Wood and wood products	22	67	...
332 Furniture and fixtures	7	21	...
341 Paper and paper products	11 b	37 b	...
342 Printing and publishing	- b	- b	...
351 Industrial chemicals	30 c	76 c	...
352 Other chemical products	- c	- c	...
353 Petroleum refineries	91 d	181 d	...
354 Misc. petroleum and coal products	- d	- d	...
355 Rubber products	2	4	...
356 Plastic products	- c	- c	...
361 Pottery, china and earthenware	12 e	29 e	...
362 Glass and glass products	- e	- e	...
369 Other non-metal mineral products	- e	- e	...
371 Iron and steel	2 f	8 f	...
372 Non-ferrous metals	- f	- f	...
381 Metal products	5	15	...
382 Non-electrical machinery	-	1	...
383 Electrical machinery	26	77	...
384 Transport equipment	33	106	...
385 Professional and scientific equipment	-	-	...
399 Other manufacturing industries	5	20	...

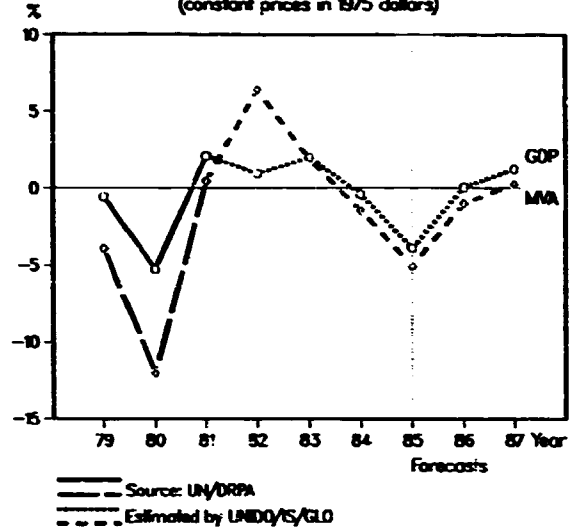
For source, footnotes and comments see "Technical notes" above.



Industrial structural change
(Index c' value added: 1970=100)

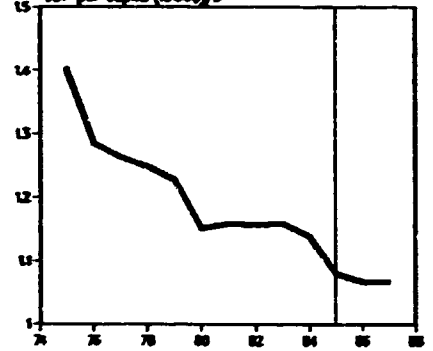


Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

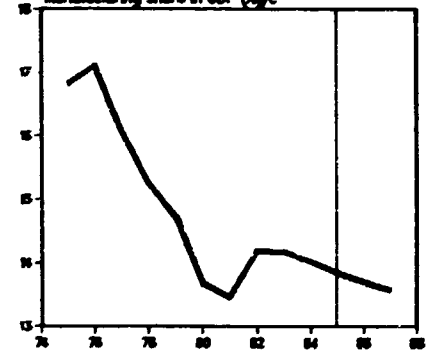


	1975	1980	1983
GDP: /na (in million dollars)	2876 /c	2500 /c	2630 /c
Per capita (in dollars)	1405 /c	1150 /c	1158 /c
Manufacturing share /na (%)	16.8 /c	13.7 /c	14.2 /c
MANUFACTURING:			
Value added /na (in million dollars)	484 /c	342 /c	373 /c
Value added (in million dollars)	488	405	...
Industrial production index	100	66	67
Gross output (in million dollars)	...	...	...
Employment (in thousands)	53	44	39
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	...	...	...
wages and salaries (%)	...	...	...
Operating surplus (%)	...	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	...	...	...
Value added / worker	...	...	...
Average wage	...	...	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	3.02	8.36	2.04
in percentage of θ in 1970-1975	61	167	41
Growth rate / structural change	-0.09	-1.38	0.95
Degree of specialization	18.0	19.1	17.2
-VALUE ADDED: (in million dollars)			
311 Food products	110	65	...
313 Beverages	69	66	...
314 Tobacco products	51	61	...
321 Textiles	4	3	...
322 Wearing apparel	22	15	...
323 Leather and fur products	2	2	...
324 Footwear	12	8	...
331 Wood and wood products	7	3	...
332 Furniture and fixtures	15	12	...
341 Paper and paper products	12	21 c	...
342 Printing and publishing	16	- c	...
351 Industrial chemicals	39 d	35 d	...
352 Other chemical products	- d	- d	...
353 Petroleum refineries	35	55	...
354 Misc. petroleum and coal products	- d	- d	...
355 Rubber products	- d	- d	...
356 Plastic products	- d	- d	...
361 Pottery, china and earthenware	1	1	...
362 Glass and glass products	3	2	...
369 Other non-metal mineral products	17	9	...
371 Iron and steel	67 e	50 e	...
372 Non-ferrous metals	- e	- e	...
381 Metal products	- e	- e	...
382 Non-electrical machinery	- e	- e	...
383 Electrical machinery	- e	- e	...
384 Transport equipment	- e	- e	...
385 Professional and scientific equipment	- e	- e	...
390 Other manufacturing industries	5	4	...

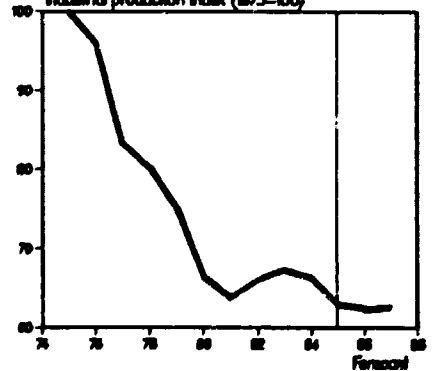
GDP per capita (1000\$) /c



Manufacturing share in GDP (%) /c

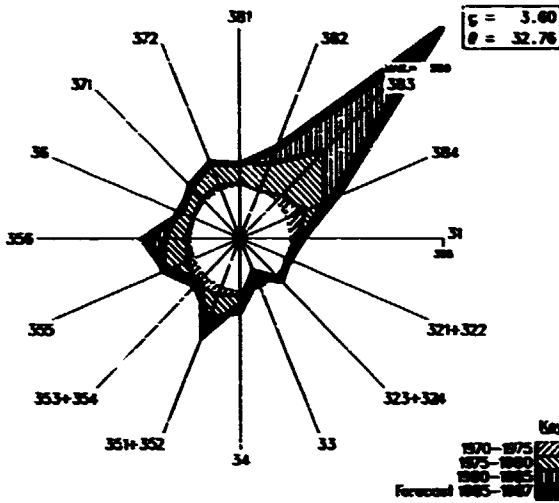


Industrial production index (1975=100)

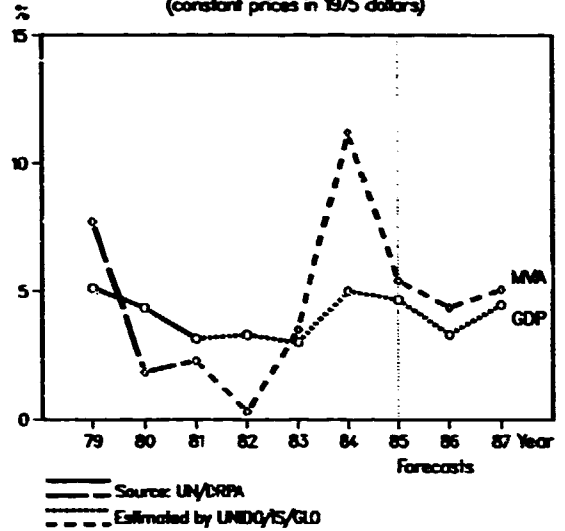


For source, footnotes and comments see "Technical notes" above.

Industrial structural change
(Index of value added: 1970=100)



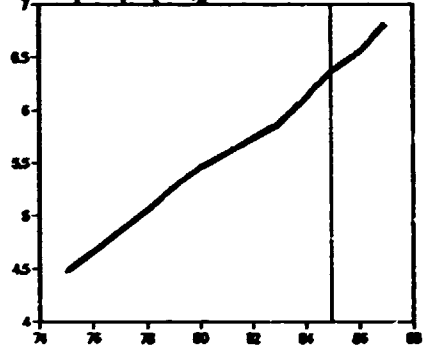
Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



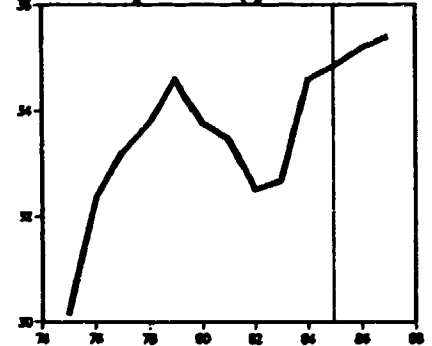
	1975	1980	1983
GDP: /na (in million dollars)	498719 /c	636983 /c	699105 /c
Per capita (in dollars)	4470 /c	5453 /c	5862 /c
Manufacturing share /na (%)	30.1 /c	33.8 /c	32.7 /c
MANUFACTURING:			
Value added /na (in million dollars)	150316 /c	215061 /c	228356 /c
Value added (in million dollars)	157026	340746	363496
Industrial production index	100	135	140
Gross output (in million dollars)	435760	974895	1002610
Employment (in thousands)	10565	10253	10426
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	64	65	64
Wages and salaries (%)	15	12	13
Operating surplus (%)	21	23	23
-PRODUCTIVITY: (in dollars)			
Gross output / worker	41246	95084	96165
Value added / worker	14863	33234	34864
Average wage	6009	11573	12685
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	5.15	4.18	5.42
in percentage of θ in 1970-1975	154	125	163
Growth rate / structural change	-1.98	1.02	0.52
Degree of specialization	12.1	13.5	15.2
-VALUE ADDED: (in million dollars)			
311 Food products	12681	26004	28878
313 Beverages	2924	5037	5861
314 Tobacco products	859	1896	2509
321 Textiles	8813	15505	14585
322 Wearing apparel	2763	5179	5343
323 Leather and fur products	458	890	859
324 Footwear	307	700	640
331 Wood and wood products	4632	9037	7280
332 Furniture and fixtures	1860	3805	3671
341 Paper and paper products	4902	9352	9684
342 Printing and publishing	7921	17175	18584
351 Industrial chemicals	7247	13870	14568
352 Other chemical products	7061	15340	18576
353 Petroleum refineries	2062	6648	5116
354 Misc. petroleum and coal products	566	1068	914
355 Rubber products	1844	4169	4421
356 Plastic products	4056	9520	11280
361 Pottery, china and earthenware	859	1630	1562
362 Glass and glass products	1314	2888	3419
369 Other non-metal mineral products	5774	12621	12189
371 Iron and steel	10370	28562	20381
372 Non-ferrous metals	2756	7491	5381
381 Metal products	10825	22509	22826
382 Non-electrical machinery	18584	39445	43687
383 Electrical machinery	14520	30042	51303
384 Transport equipment	15929	32250	38015
385 Professional and scientific equipment	2289	5710	6206
389 Other manufacturing industries	2831	5201	5940

For source, footnotes and comments see "Technical notes" above.

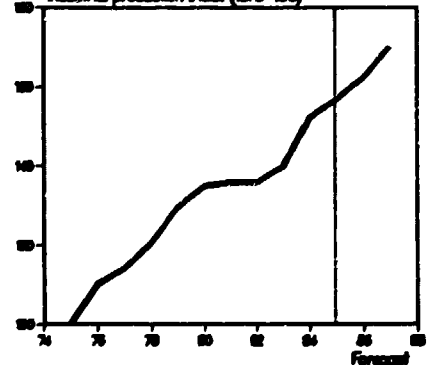
GDP per capita (000\$)/c



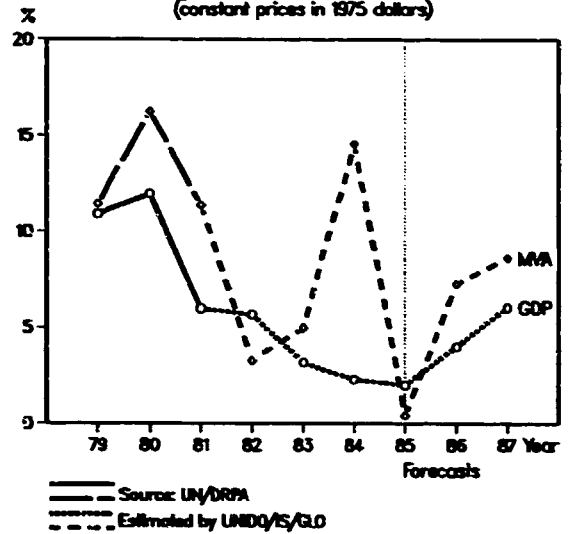
Manufacturing share in GDP (%)



Industrial production Index (1975=100)

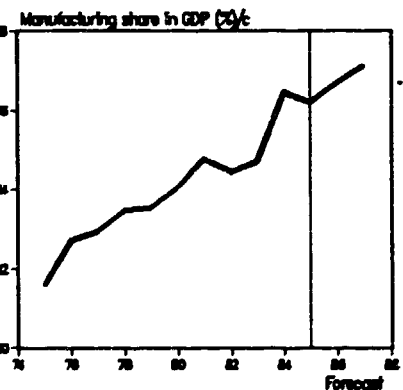
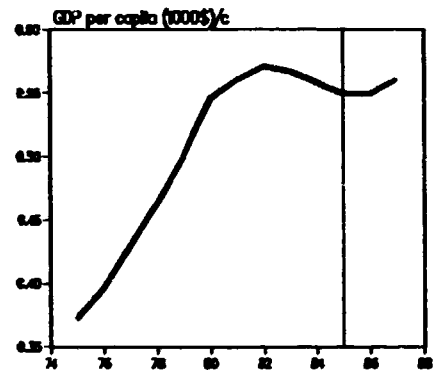


Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

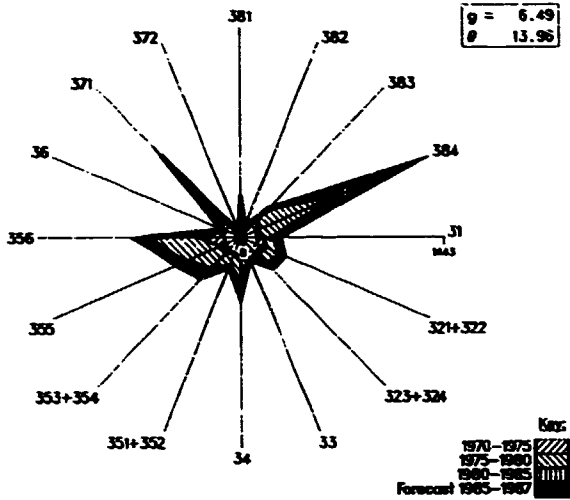


	1975	1980	1983
GDP: /na (in million dollars)	1006 /c	1595 /c	1843 /c
Per capita (in dollars)	372 /c	546 /c	567 /c
Manufacturing share /na (%)	11.6 /c	14.1 /c	14.7 /c
MANUFACTURING:			
Value added /na (in million dollars)	117 /c	224 /c	271 /c
Value added (in million dollars)	102	396	...
Industrial production index	...	...	...
Gross output (in million dollars)	275	914	...
Employment (in thousands)	19	25	31
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	61	57	...
Wages and salaries (%)	10	12	...
Operating surplus (%)	29	32	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	14458	37054	...
Value added / worker	5669	16067	...
Average wage	1455	4342	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	...	...	...
in percentage of θ in 1970-1975	...	...	...
Growth rate / structural change	...	...	...
Degree of specialization	...	...	...
-VALUE ADDED: (in million dollars)			
311 Food products	20	24	...
313 Beverages	4	20	...
314 Tobacco products	7	50	...
321 Textiles	4	10	...
322 wearing apparel	5	8	...
323 Leather and fur products	2	2	...
324 Footwear	2	8	...
331 Wood and wood products	-	1	...
332 Furniture and fixtures	5	17	...
341 Paper and paper products	1	9	...
342 Printing and publishing	2	7	...
351 Industrial chemicals	7 a	24 a	...
352 Other chemical products	- a	- a	...
353 Petroleum refineries	16	53	...
354 Misc. petroleum and coal products	-	-	...
355 Rubber products	-	-	...
356 Plastic products	3	12	...
361 Pottery, china and earthenware	-	-	...
362 Glass and glass products	-	2	...
369 Other non-metal mineral products	10	98	...
371 Iron and steel	14 c	16 e	...
372 Non-ferrous metals	- c	- e	...
381 Metal products	- c	28 f	...
382 Non-electrical machinery	- c	- f	...
383 Electrical machinery	2	2	...
384 Transport equipment	3	-	...
385 Professional and scientific equipment	-	-	...
390 Other manufacturing industries	2	7	...

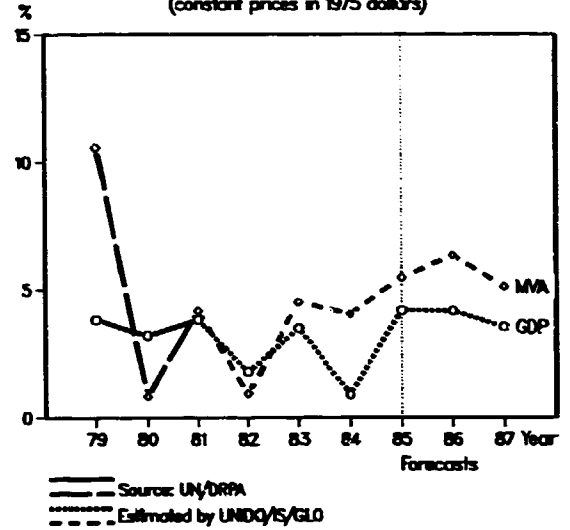
For source, footnotes and comments see "Technical notes" above.



Industrial structural change (Index of value added: 1970=100)

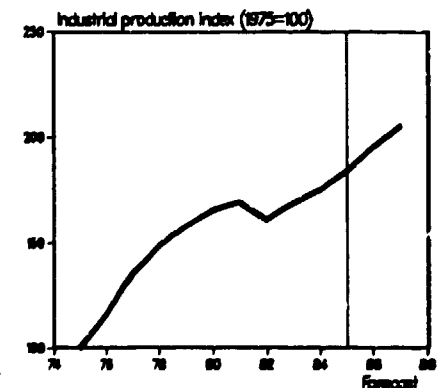
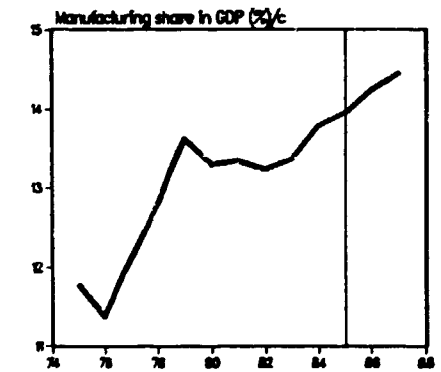
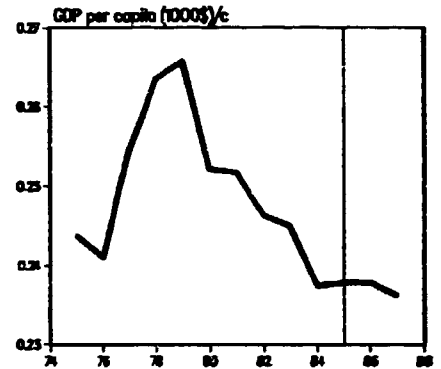


Annual growth rates of GDP and MVA (constant prices in 1975 dollars)



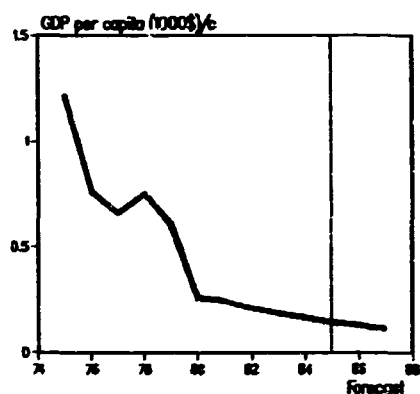
	1975	1980	1983
GDP: /na (in million dollars)	3269 /c	4203 /c	4598 /c
Per capita (in dollars)	244 /c	252 /c	245 /c
Manufacturing share /na (%)	11.8 /c	13.3 /c	13.4 /c
MANUFACTURING:			
Value added /na (in million dollars)	385 /c	559 /c	615 /c
Value added (in million dollars)	380	887	...
Industrial production index	100	165	169
Gross output (in million dollars)	1655	4634	...
Employment (in thousands)	120	162	186
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	77	81	...
wages and salaries (%)	10	8	...
Operating surplus (%)	13	11	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	13779	28630	...
Value added / worker	3161	5482	...
Average wage	1381	2363	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	5.81	4.21	3.27
in percentage of θ in 1970-1975	149	108	84
Growth rate / structural change	-0.93	1.15	1.48
Degree of specialization	18.3	14.6	15.9
-VALUE ADDED: (in million dollars)			
311 Food products	90	260	...
313 Beverages	31	66	...
314 Tobacco products	13	24	...
321 Textiles	21	58	...
322 Wearing apparel	7	13	...
323 Leather and fur products	2	7	...
324 Footwear	4	13	...
331 Wood and wood products	8	23	...
332 Furniture and fixtures	5	20	...
341 Paper and paper products	12	34	...
342 Printing and publishing	17	28	...
351 Industrial chemicals	13	20	...
352 Other chemical products	21	56	...
353 Petroleum refineries	15	13	...
354 Misc. petroleum and coal products	-	-	...
355 Rubber products	12	37	...
356 Plastic products	5	8	...
361 Pottery, china and earthenware	-	-	...
362 Glass and glass products	2	3	...
369 Other non-metal mineral products	20	29	...
371 Iron and steel	4 a	11 a	...
372 Non-ferrous metals	- b	- b	...
381 Metal products	20	55	...
382 Non-electrical machinery	3	22	...
383 Electrical machinery	20	40	...
384 Transport equipment	31	45	...
385 Professional and scientific equipment	-	-	...
386 Other manufacturing industries	4	4	...

For source, footnotes and comments see "Technical notes" above.

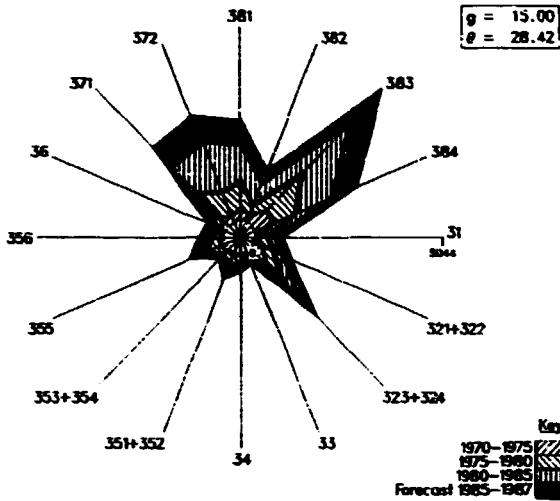


	1975	1980	1983
GDP: /na (in million dollars)	66 /c	15 /c	11 /c
Per capita (in dollars)	1222 /c	259 /c	186 /c
Manufacturing share /na (%)
MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
389 Other manufacturing industries

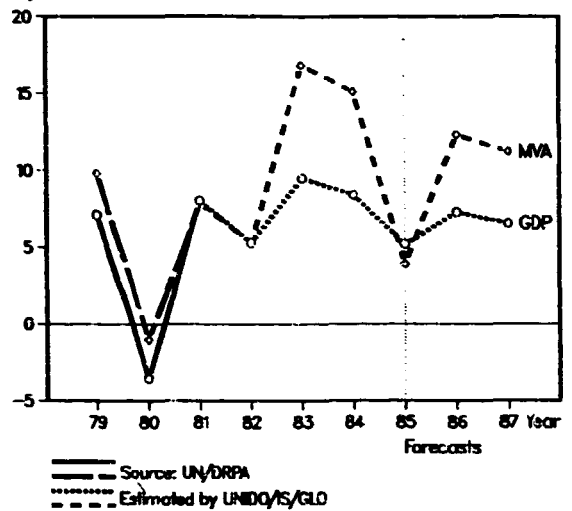
For source, footnotes and comments see "Technical notes" above.



Industrial structural change
(Index of value added: 1970=100)

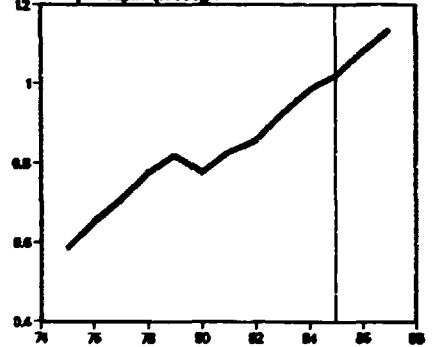


Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

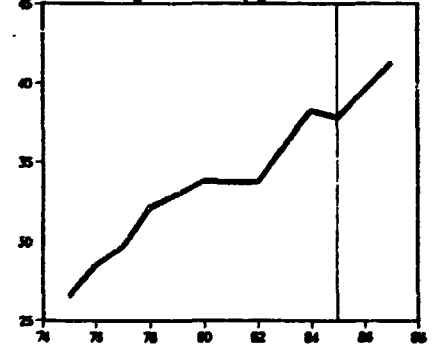


	1975	1980	1983
GDP: /na (in million dollars)	20560 /c	29630 /c	36901 /c
Per capita (in dollars)	582 /c	777 /c	924 /c
Manufacturing share /na (%)	26.5 /c	33.6 /c	36.1 /c
MANUFACTURING:			
Value added /na (in million dollars)	5451 /c	10027 /c	13304 /c
Value added (in million dollars)	5713	19564	...
Industrial production index	100	216	299
Gross output (in million dollars)	16816	59860	...
Employment (in thousands)	1396	1982	2165
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	66	67	...
Wages and salaries (%)	8	10	...
Operating surplus (%)	26	23	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	12045	30197	...
Value added / worker	4092	9869	...
Average wage	964	2890	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	5.51	7.09	6.38
in percentage of θ in 1970-1975	76	87	88
Growth rate / structural change	3.30	-0.44	2.64
Degree of specialization	10.0	10.4	11.0
-VALUE ADDED: (in million dollars)			
311 Food products	407	1530	...
313 Beverages	345	573	...
314 Tobacco products	262	1145	...
321 Textiles	943	2655	...
322 Wearing apparel	243	907	...
323 Leather and fur products	83	139	...
324 Footwear	20	112	...
331 Wood and wood products	138	239	...
332 Furniture and fixtures	15	101	...
341 Paper and paper products	114	427	...
342 Printing and publishing	114	441	...
351 Industrial chemicals	332	1000	...
352 Other chemical products	270	1018	...
353 Petroleum refineries	417	759	...
354 Misc. petroleum and coal products	58	211	...
355 Rubber products	143	658	...
356 Plastic products	53	360	...
361 Pottery, china and earthenware	9	89	...
362 Glass and glass products	55	198	...
369 Other non-metal mineral products	260	840	...
371 Iron and steel	324	1259	...
372 Non-ferrous metals	46	236	...
381 Metal products	137	637	...
382 Non-electrical machinery	128	673	...
383 Electrical machinery	411	1591	...
384 Transport equipment	231	1155	...
385 Professional and scientific equipment	43	214	...
386 Other manufacturing industries	110	368	...

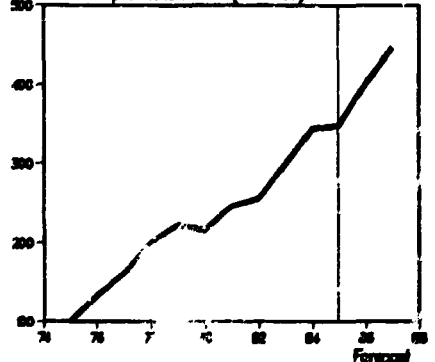
GDP per capita (1000\$)/c



Manufacturing share in GDP (%)/c

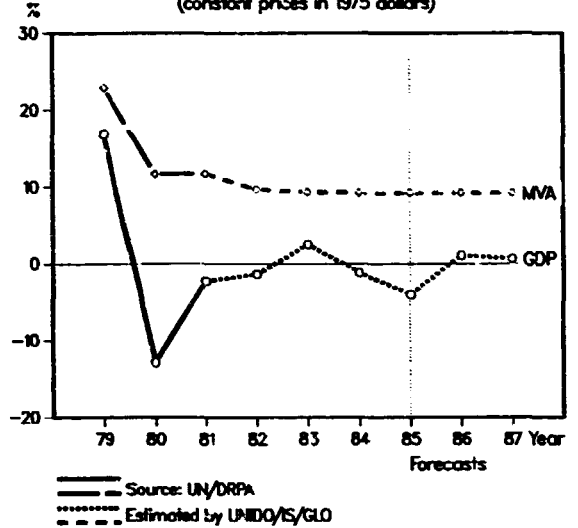


Industrial production index (1975=100)

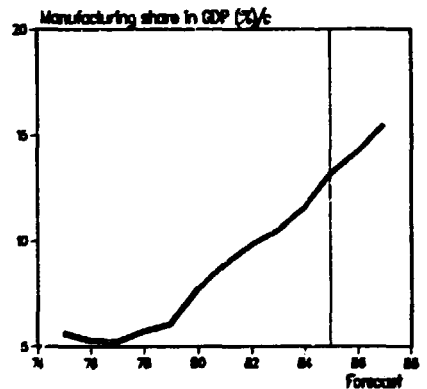
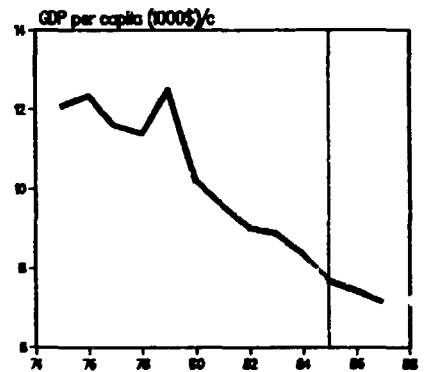


For source, footnotes and comments see "Technical notes" above.

Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



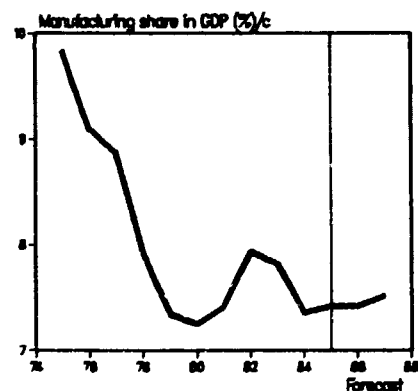
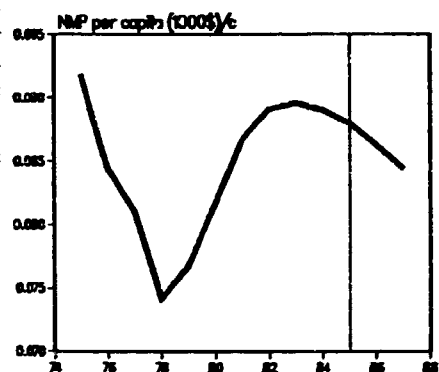
	1975	1980	1983
GDP: /na (in million dollars)	12021 /c	14029 /c	13862 /c
Per capita (in dollars)	12081 /c	10203 /c	8886 /c
Manufacturing share /na (%)	5.6 /c	7.7 /c	10.5 /c
MANUFACTURING:			
Value added /na (in million dollars)	677 /c	1085 /c	1453 /c
Value added (in million dollars)	509	1831	...
Industrial production index	...	...	...
Gross output (in million dollars)	1661	6323	...
Employment (in thousands)	27	44	...
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	69	71	...
Wages and salaries (%)	8	5	...
Operating surplus (%)	23	24	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	62660	144869	...
Value added / worker	19213	41960	...
Average wage	4758	7816	...
-STRUCTURAL INDICES:			
Structural change F (in degrees)	...	...	...
in percentage of L in 1970-1975	...	...	...
Growth rate / structural change	...	...	...
Degree of specialization	...	...	...
-VALUE ADDED: (in million dollar)			
311 Food products	38	88	...
313 Beverages	13	20	...
314 Tobacco products	-	-	...
321 Textiles	3	7	...
322 Wearing apparel	23	84	...
323 Leather and fur products	-	-	...
324 Footwear	-	-	...
331 Wood and wood products	7	40	...
332 Furniture and fixtures	19	41	...
341 Paper and paper products	2	5	...
342 Printing and publishing	12	40	...
351 Industrial chemicals	63	118	...
352 Other chemical products	2	12	...
353 Petroleum refineries	280	955	...
354 Misc. petroleum and coal products	-	-	...
355 Rubber products	-	4	...
356 Plastic products	4	24	...
361 Pottery, china and earthenware	-	2	...
362 Glass and glass products	-	1	...
369 Other non-metal mineral products	23	200	...
371 Iron and steel	6	7	...
372 Non-ferrous metals	2	-	...
381 Metal products	20	99	...
382 Non-electrical machinery	2	10	...
383 Electrical machinery	-	21	...
384 Transport equipment	6	45	...
385 Professional and scientific equipment	1	-	...
389 Other manufacturing industries	3	7	...



For source, footnotes and comments see "Technical notes" above.

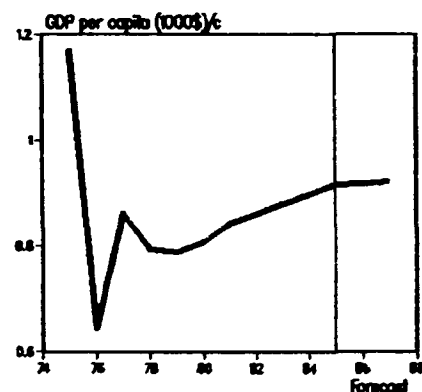
	1975	1980	1983
NMP: /na (in million dollars)	315 /c	319 /c	377 /c
Per capita (in dollars)	92 /c	82 /c	90 /c
Manufacturing share /na (%)	9.8 /c	7.3 /c	7.6 /c
MANUFACTURING:			
Value added /na (in million dollars)	31 /c	23 /c	30 /c
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)	31	...	...
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change B (in degrees)
in percentage of B in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
390 Other manufacturing industries

For source, footnotes and comments see "Technical notes" above.



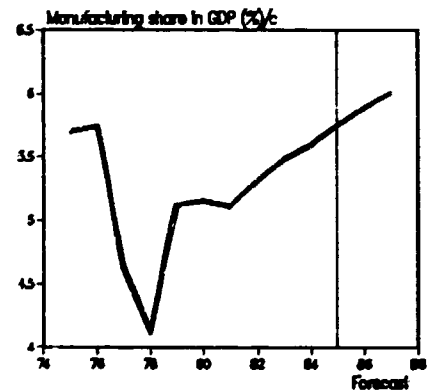
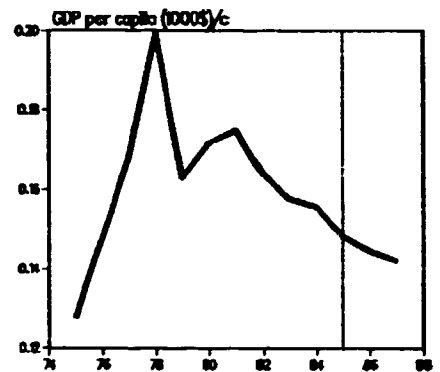
	1975	1980	1983
GDP: /na (in million dollars):	3247 /c	2156 /c	2317 /c
Per capita (in dollars)	1172 /c	808 /c	879 /c
Manufacturing share /na (%)	...	...	...
MANUFACTURING:			
Value added /na (in million dollars)	...	...	...
Value added (in million dollars)	270	...	...
Industrial production index	...	...	...
Gross output (in million dollars)	...	...	...
Employment (in thousands)	66	...	...
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	...	...	...
Wages and salaries (%)	...	...	...
Operating surplus (%)	...	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	...	...	...
Value added / worker	...	...	...
Average wage	...	...	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	...	...	...
in percentage of θ in 1970-1975	...	...	...
Growth rate / structural change	...	...	...
Degree of specialization	...	...	...
-VALUE ADDED: (in million dollars)			
311 Food products	49	...	...
313 Beverages	10	...	...
314 Tobacco products	14	...	...
321 Textiles	23	...	...
322 Wearing apparel	21 a	...	...
323 Leather and fur products	7	...	...
324 Footwear	- a	...	...
331 Wood and wood products	7	...	...
332 Furniture and fixtures	17	...	...
341 Paper and paper products	5	...	...
342 Printing and publishing	24	...	...
351 Industrial chemicals	9 b	...	...
352 Other chemical products	- b	...	...
353 Petroleum refineries	16 c	...	...
354 Misc. petroleum and coal products	- c	...	...
355 Rubber products	1	...	...
356 Plastic products	-	...	...
361 Pottery, china and earthenware	38 d	...	...
362 Glass and glass products	- d	...	...
369 Other non-metal mineral products	- d	...	...
371 Iron and steel	4 e	...	...
372 Non-ferrous metals	- e	...	...
381 Metal products	18	...	...
382 Non-electrical machinery	2	...	...
383 Electrical machinery	2	...	...
384 Transport equipment	-	...	...
385 Professional and scientific equipment	-	...	...
389 Other manufacturing industries	7	...	...

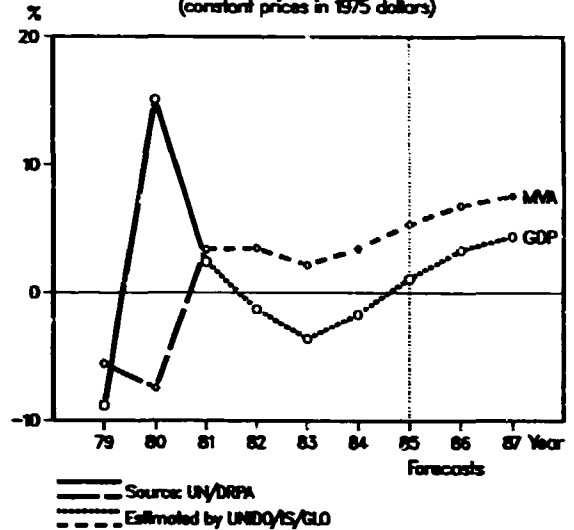
For source, footnotes and comments see "Technical notes" above.



	1975	1980	1983
GDP: /na (in million dollars)	152 /c	230 /c	228 /c
Per capita (in dollars)	127 /c	172 /c	158 /c
Manufacturing share /na (%)	5.7 /c	5.2 /c	5.5 /c
MANUFACTURING:			
Value added /na (in million dollars)	9 /c	12 /c	12 /c
Value added (in million dollars)	3	...	...
Industrial production index	...	...	...
Gross output (in million dollars)	11	...	...
Employment (in thousands)	2	2	2
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	79	...	...
Wages and salaries (%)	12	...	...
Operating surplus (%)	6	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	5837	...	...
Value added / worker	1205	...	...
Average wage	725	...	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	...	...	...
in percentage of θ in 1970-1975	...	...	...
Growth rate / structural change	...	...	...
Degree of specialization	...	...	...
-VALUE ADDED: (in million dollars)			
311 Food products	-	...	...
313 Beverages	...	...	...
314 Tobacco products	...	...	...
321 Textiles	...	...	...
322 Wearing apparel	-	...	...
323 Leather and fur products	-	...	...
324 Footwear	...	...	...
331 Wood and wood products	...	...	...
332 Furniture and fixtures	1	...	...
341 Paper and paper products	...	...	...
342 Printing and publishing	1	...	...
351 Industrial chemicals	...	...	...
352 Other chemical products	...	...	...
353 Petroleum refineries	...	...	...
354 Misc. petroleum and coal products	...	...	...
355 Rubber products	...	...	...
356 Plastic products	...	...	...
361 Pottery, china and earthenware	-	...	...
362 Glass and glass products	...	...	...
369 Other non-metal mineral products	1	...	...
371 Iron and steel	...	...	...
372 Non-ferrous metals	...	...	...
381 Metal products	-	...	...
382 Non-electrical machinery	...	...	...
383 Electrical machinery	...	...	...
384 Transport equipment	...	...	...
385 Professional and scientific equipment
390 Other manufacturing industries	-

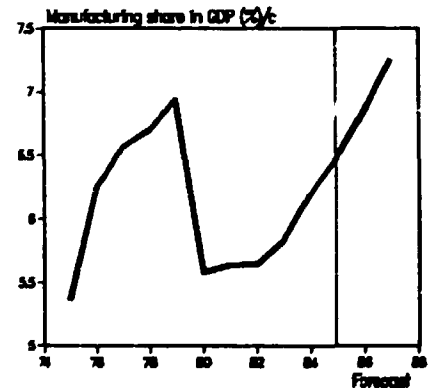
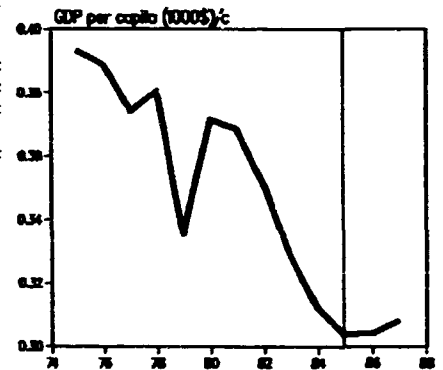
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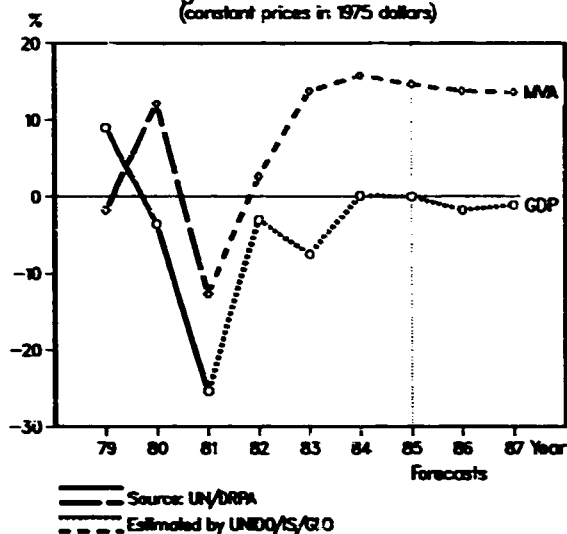


Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

	1975	1980	1983
GDP: /na (in million dollars)	610 /c	687 /c	670 /c
Per capita (in dollars)	392 /c	371 /c	328 /c
Manufacturing share /na (%)	5.4 /c	5.6 /c	5.8 /c
MANUFACTURING:			
Value added /na (in million dollars)	33 /c	38 /c	39 /c
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
390 Other manufacturing industries

For source, footnotes and comments see "Technical notes" above.

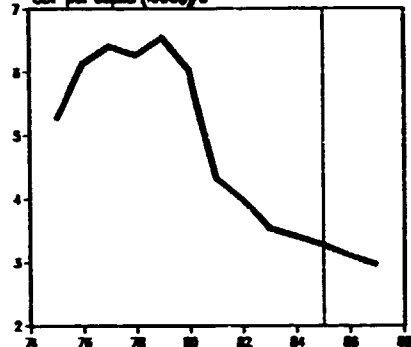


Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

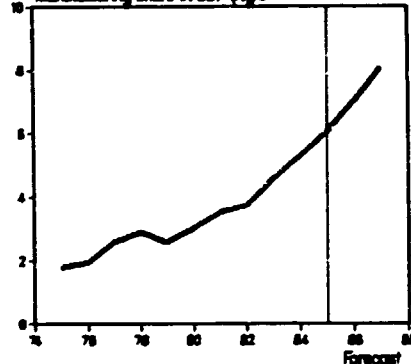
	1975	1980	1983
GDP: /na (in million dollars)	12768 /c	18365 /c	12301 /c
Per capita (in dollars)	5254 /c	6041 /c	3545 /c
Manufacturing share /na (%)	1.6 /c	3.0 /c	4.6 /c
MANUFACTURING:			
Value added /na (in million dollars)	228 /c	552 /c	563 /c
Value added (in million dollars)	156	...	...
Industrial production index	...	...	...
Gross output (in million dollars)	369	...	...
Employment (in thousands)	12	14	16
-PROFITABILITY: (in percent of gross output:			
Intermediate input (%)	58	...	...
Wages and salaries (%)	14	...	...
Operating surplus (%)	28	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	29903	...	...
Value added / worker	12602	...	...
Average wage	4188	...	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	...	...	...
in percentage of θ in 1970-1975	...	...	...
Growth rate / structural change	...	...	...
Degree of specialization	...	...	...
-VALUE ADDED: (in million dollars)			
311 Food products	24	...	...
313 Beverages	10	...	...
314 Tobacco products	62	...	...
321 Textiles	3	...	...
322 Wearing apparel	-	...	...
323 Leather and fur products	-	...	...
324 Footwear	-	...	...
331 Wood and wood products	2	...	...
332 Furniture and fixtures	2	...	...
341 Paper and paper products	2	...	...
342 Printing and publishing	4	...	...
351 Industrial chemicals	2	...	...
352 Other chemical products	17	...	...
353 Petroleum refineries	...	...	...
354 Misc. petroleum and coal products	-	...	...
355 Rubber products	-	...	...
356 Plastic products	-	...	...
361 Pottery, china and earthenware	-	...	...
362 Glass and glass products	1	...	...
369 Other non-metal mineral products	18	...	...
371 Iron and steel	1	...	...
372 Non-ferrous metals	-	...	...
381 Metal products	8	...	...
382 Non-electrical machinery	-	...	...
383 Electrical machinery	-	...	...
384 Transport equipment	-	...	...
385 Professional and scientific equipment	-	...	...
389 Other manufacturing industries	-	...	...

For source, footnotes and comments see "Technical notes" above.

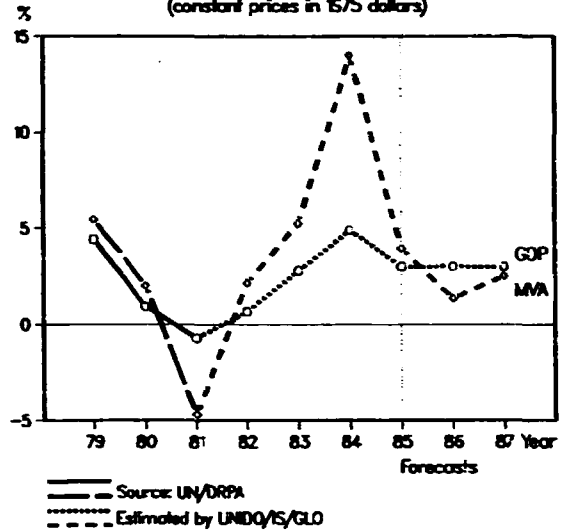
GDP per capita (1000\$/c)



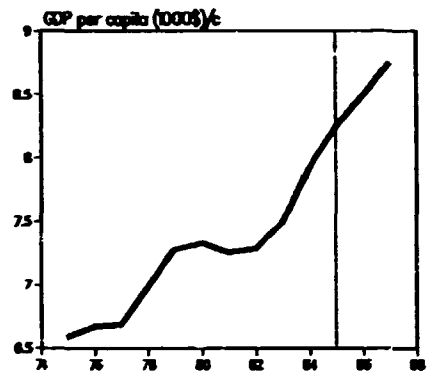
Manufacturing share in GDP (%/c)



Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



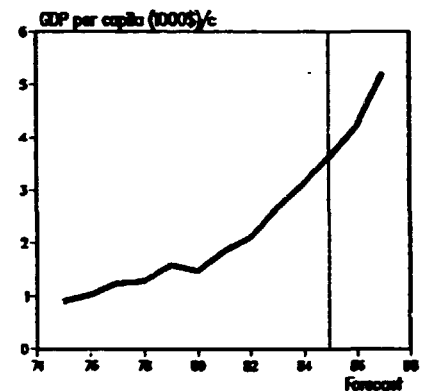
	1975	1980	1983
GDP: /na (in million dollars)	2359 /c	2667 /c	2740 /c
Per capita (in dollars)	6589 /c	7327 /c	7486 /c
Manufacturing share /na (%)	28.1 /c	27.5 /c	27.4 /c
MANUFACTURING:			
Value added /na (in million dollars)	662 /c	734 /c	752 /c
Value added (in million dollars)	780	1186	...
Industrial production index	...	...	...
Gross output (in million dollars)	2020	3285	...
Employment (in thousands)	45	38	35
-PROFITABILITY: (in percent of gross output:			
Intermediate input (%)	61	64	...
Wages and salaries (%)	25	23	...
Operating surplus (%)	14	13	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	45394	86887	...
Value added / worker	17534	31470	...
Average wage	11155	20112	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	...	...	...
in percentage of θ in 1970-1975	...	...	...
Growth rate / structural change	...	...	...
Degree of specialization	...	...	...
-VALUE ADDED: (in million dollars)			
311 Food products	16	32	...
313 Beverages	20	33	...
314 Tobacco products	5	9	...
321 Textiles	4	24	...
322 Wearing apparel	4	5	...
323 Leather and fur products	-	-	...
324 Footwear	-	-	...
331 Wood and wood products	1	3	...
332 Furniture and fixtures	1	2	...
341 Paper and paper products	3	7	...
342 Printing and publishing	11	25	...
351 Industrial chemicals	108 c	179 c	...
352 Other chemical products	3	3	...
353 Petroleum refineries	-	-	...
354 Misc. petroleum and coal products	- c	- c	...
355 Rubber products	- c	- c	...
356 Plastic products	- c	- c	...
361 Pottery, china and earthenware	11	27	...
362 Glass and glass products	-	-	...
369 Other non-metal mineral products	18	45	...
371 Iron and steel	471	594	...
372 Non-ferrous metals	11	32	...
381 Metal products	14	25	...
382 Non-electrical machinery	55	104	...
383 Electrical machinery	8	19	...
384 Transport equipment	14	21	...
385 Professional and scientific equipment	-	2	...
390 Other manufacturing industries	-	-	...



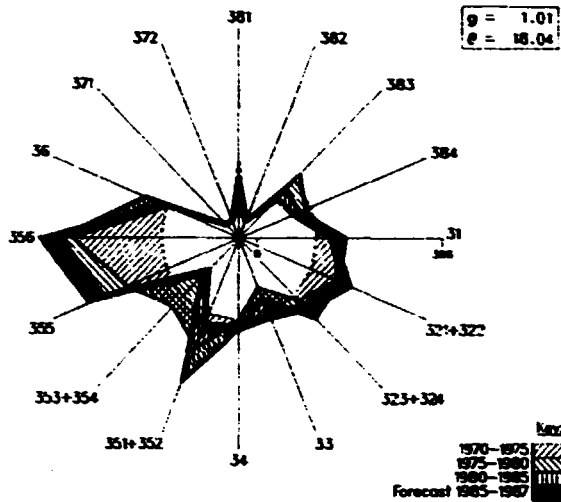
For source, footnotes and comments see "Technical notes" above.

	1975	1980	1983
GDP: /na (in million dollars)	242 /c	471 /c	953 /c
Per capita (in dollars)	906 /c	1481 /c	2647 /c
Manufacturing share /na (%)
MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)	...	127	...
Industrial production index
Gross output (in million dollars)	...	540	...
Employment (in thousands)	...	46	69
-PROFITABILITY: (in percent of gross output):			
Intermediate input (%)	...	77	...
wages and salaries (%)	...	15	...
Operating surplus (%)	...	9	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	...	11670	...
Value added / worker	...	2742	...
Average wage	...	1704	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products	...	1	...
313 Beverages	...	1	...
314 Tobacco products	...	-	...
321 Textiles	...	31	...
322 wearing apparel	...	71	...
323 Leather and fur products	...	2	...
324 Footwear	...	-	...
331 Wood and wood products	...	1	...
332 Furniture and fixtures	...	1	...
341 Paper and paper products	...	1	...
342 Printing and publishing	...	4	...
351 Industrial chemicals	...	-	...
352 Other chemical products	...	-	...
353 Petroleum refineries	...	-	...
354 Misc. petroleum and coal products	...	-	...
355 Rubber products	...	-	...
356 Plastic products	...	2	...
361 Pottery, china and earthenware	...	-	...
362 Glass and glass products	...	-	...
369 Other non-metal mineral products	...	-	...
371 Iron and steel	...	-	...
372 Non-ferrous metals	...	-	...
381 Metal products	...	1	...
382 Non-electrical machinery	...	-	...
383 Electrical machinery	...	2	...
384 Transport equipment	...	1	...
385 Professional and scientific equipment	...	1	...
280 Other manufacturing industries	...	6	...

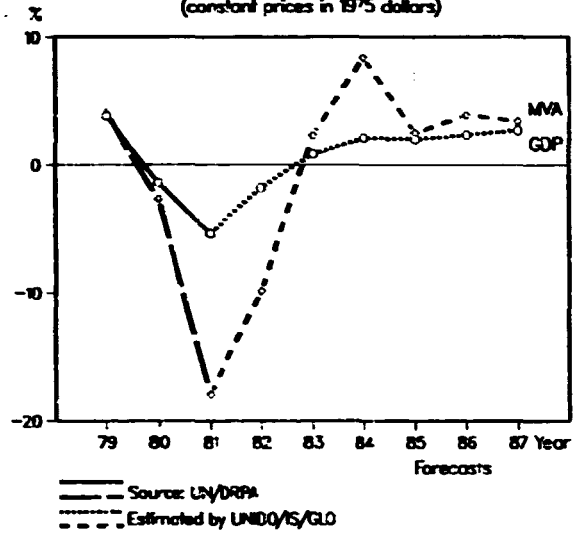
For source, footnotes and comments see "Technical notes" above.



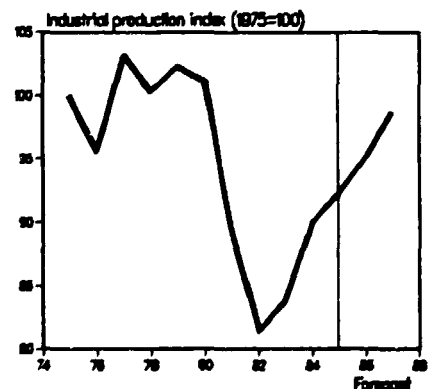
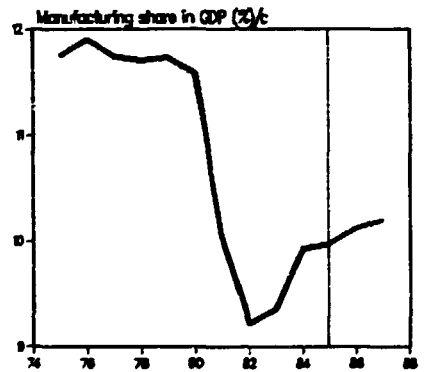
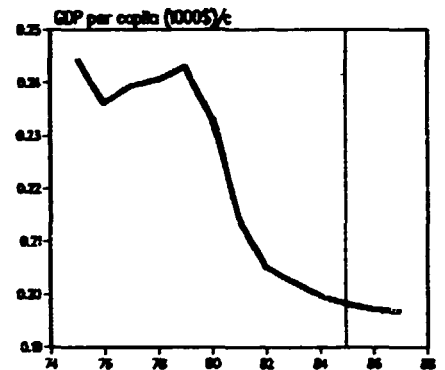
Industrial structural change
(Index of value added: 1970=100)



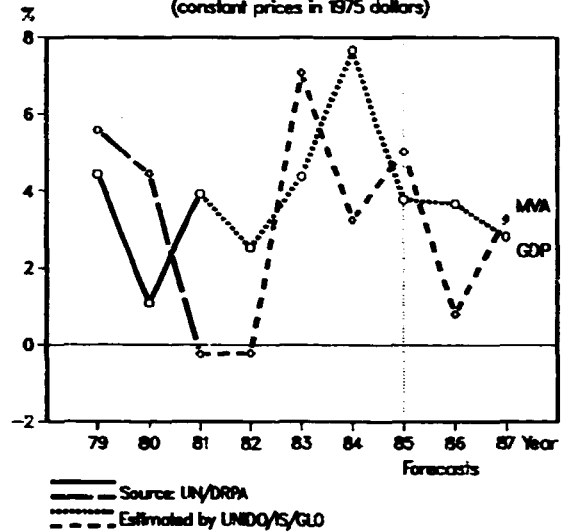
Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



	1975	1980	1983
GDP: /na (in million dollars)	1856 /c	2030 /c	1903 /c
Per capita (in dollars)	244 /c	233 /c	202 /c
Manufacturing share /na (%)	11.7 /c	11.6 /c	9.4 /c
MANUFACTURING:			
Value added /na (in million dollars)	218 /c	235 /c	178 /c
Value added (in million dollars)	135	220	...
Industrial production index	100	101	84
Gross output (in million dollars)	352	564	...
Employment (in thousands)	42	39	40
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	62	61	...
Wages and salaries (%)	16	15	...
Operating surplus (%)	23	24	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	87	14280	...
Value added / worker	3197	5562	...
Average wage	1302	2098	...
-STRUCTURAL INDICES:			
Structural change B (in degrees)	5.99	2.52	6.45
in percentage of B in 1970-1975	94	40	102
Growth rate / structural change	-0.60	-0.49	0.44
Degree of specialization	23.1	20.9	22.2
-VALUE ADDED: (in million dollars)			
311 Food products	29	23	...
313 Beverages	11	34	...
314 Tobacco products	3	3	...
321 Textiles	36	67	...
322 Wearing apparel	9	19	...
323 Leather and fur products	1	3	...
324 Footwear	3	8	...
331 Wood and wood products	2	3	...
332 Furniture and fixtures	-	1	...
341 Paper and paper products	5	4	...
342 Printing and publishing	3	6	...
351 Industrial chemicals	1	1	...
352 Other chemical products	9	10	...
353 Petroleum refineries	4	11	...
354 Misc. petroleum and coal products	-	-	...
355 Rubber products	1	1	...
356 Plastic products	1	2	...
361 Pottery, china and earthenware	-	-	...
362 Glass and glass products	1	2	...
369 Other non-metal mineral products	1	-	...
371 Iron and steel	-	-	...
372 Non-ferrous metals	-	-	...
381 Metal products	5	9	...
382 Non-electrical machinery	-	-	...
383 Electrical machinery	2	3	...
384 Transport equipment	7	7	...
385 Professional and scientific equipment	-	-	...
390 Other manufacturing industries	1	2	...



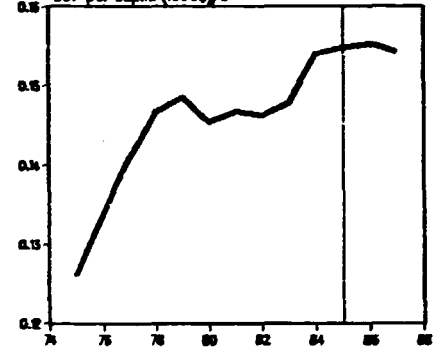
For source, footnotes and comments see "Technical notes" above.

Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

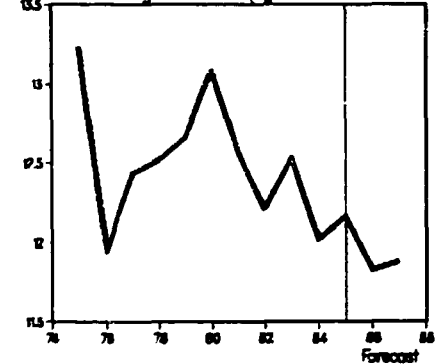
	1975	1980	1983
GDP: /na (in million dollars)	661 /c	879 /c	978 /c
Per capita (in dollars)	126 /c	145 /c	148 /c
Manufacturing share /na (%)	13.2 /c	13.1 /c	12.5 /c
MANUFACTURING:			
Value added /na (in million dollars)	87 /c	115 /c	123 /c
Value added (in million dollars)	46	150	...
Industrial production index	...	...	...
Gross output (in million dollars)	203	491	...
Employment (in thousands)	27	46	...
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	77	69	...
Wages and salaries (%)	8	9	...
Operating surplus (%)	14	22	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	7393	12409	...
Value added / worker	1664	3794	...
Average wage	613	1064	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	...	...	...
in percentage of θ in 1970-1975	...	...	...
Growth rate / structural change	...	...	...
Degree of specialization	...	...	...
-VALUE ADDED: (in million dollars)			
311 Food products	14	80	...
313 Beverages	5	6	...
314 Tobacco products	4	7	...
321 Textiles	4	13	...
322 wearing apparel	1	3	...
323 Leather and fur products	-	-	...
324 Footwear	1	1	...
331 Wood and wood products	2	3	...
332 Furniture and fixtures	-	-	...
341 Paper and paper products	1	3	...
342 Printing and publishing	2	3	...
351 Industrial chemicals	1	9	...
352 Other chemical products	3	6	...
353 Petroleum refineries	-	-	...
354 Misc. petroleum and coal products	-	-	...
355 Rubber products	1	4	...
356 Plastic products	-	2	...
361 Pottery, china and earthenware	-	-	...
362 Glass and glass products	-	-	...
369 Other non-metal mineral products	2	3	...
371 Iron and steel	-	-	...
372 Non-ferrous metals	-	-	...
381 Metal products	2	4	...
382 Non-electrical machinery	1	1	...
383 Electrical machinery	-	1	...
384 Transport equipment	1	1	...
385 Professional and scientific equipment	-	-	...
390 Other manufacturing industries	-	1	...

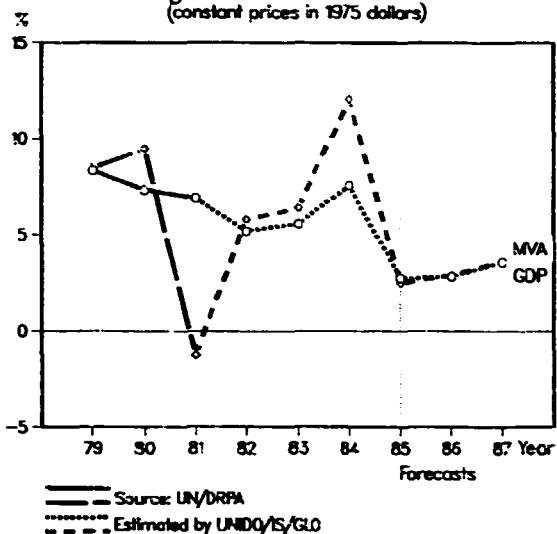
For source, footnotes and comments see "Technical notes" above.

GDP per capita (1000\$)/c



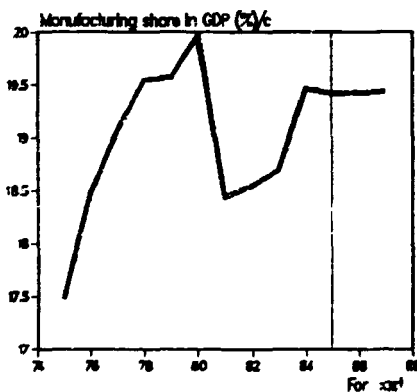
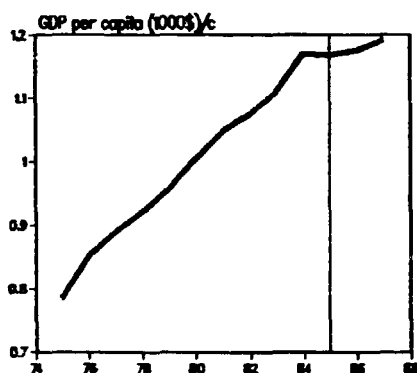
Manufacturing share in GDP (%)/c



Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

	1975	1980	1983
GDP: /na (in million dollars)	9329 /c	13830 /c	16426 /c
Per capita (in dollars)	784 /c	1005 /c	1108 /c
Manufacturing share /na (%)	17.5 /c	20.0 /c	18.7 /c
MANUFACTURING:			
Value added /na (in million dollars)	1631 /c	2761 /c	3071 /c
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change B (in degrees)
in percentage of B in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 wearing apparel
323 Leather and fur products
324 Footwear
331 wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
390 Other manufacturing industries

For source, footnotes and comments see "Technical notes" above.



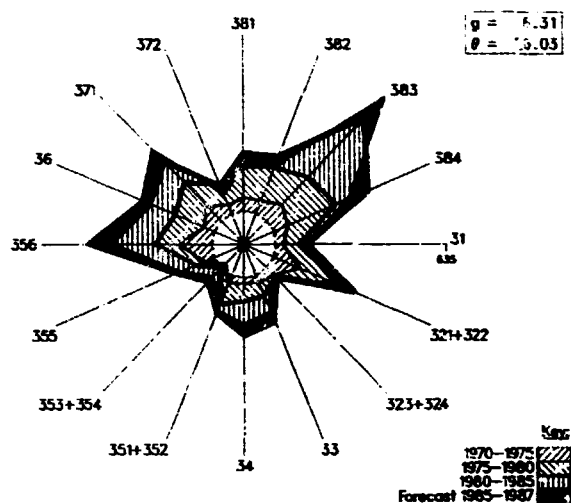
	1975	1980	1983
GDP: /na (in million dollars)	...	...	...
Per capita (in dollars)	...	...	...
Manufacturing share /na (%)	...	...	...
MANUFACTURING:			
Value added /na (in million dollars)	...	...	...
Value added (in million dollars)	44	94	...
Industrial production index	...	...	...
Gross output (in million dollars)	195	...	...
Employment (in thousands)	15	21	23
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	77	...	...
Wages and salaries (%)	9	...	...
Operating surplus (%)	14	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	12932	...	...
Value added / worker	2911	...	...
Average wage	1119	...	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	...	...	...
in percentage of θ in 1970-1975	...	...	...
Growth rate / structural change	...	...	...
Degree of specialization	...	...	...
-VALUE ADDED: (in million dollars)			
311 Food products	4	11	...
313 Beverages	2	5	...
314 Tobacco products	...	-	...
321 Textiles	-	-	...
322 Wearing apparel	-	1	...
323 Leather and fur products	-	-	...
324 Footwear	...	...	...
331 Wood and wood products	24	41	...
332 Furniture and fixtures	1	2	...
341 Paper and paper products	...	...	...
342 Printing and publishing	2	5	...
351 Industrial chemicals	- a	1 a	...
352 Other chemical products	- a	- a	...
353 Petroleum refineries	5	7	...
354 Misc. petroleum and coal products	-	-	...
355 Rubber products	-	2	...
356 Plastic products	1	2	...
361 Pottery, china and earthenware	-	-	...
362 Glass and glass products	-	-	...
369 Other non-metal mineral products	1	?	...
371 Iron and steel	...	-	...
372 Non-ferrous metals	-	-	...
381 Metal products	1	4	...
382 Non-electrical machinery	-	1	...
383 Electrical machinery	...	-	...
384 Transport equipment	3	6	...
385 Professional and scientific equipment	-	-	...
390 Other manufacturing industries	-	1	...

For source, footnotes and comments see "Technical notes" above.

	1975	1980	1983
GDP: /na (in million dollars)	...	...	...
Per capita (in dollars)	...	...	...
Manufacturing share /na (%)	...	...	...
MANUFACTURING:			
Value added /na (in million dollars)	...	...	...
Value added (in million dollars)	21	...	...
Industrial production index	...	...	...
Gross output (in million dollars)	59	...	...
Employment (in thousands)	6	12	16
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	64	...	...
wages and salaries (%)	15	...	...
Operating surplus (%)	21	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	9219	...	...
Value added / worker	3286	...	...
Average wage	1370	...	...
-STRUCTURAL INDICES:			
Structural change a (in degrees)	...	...	...
in percentage of B in 1970-1975	...	...	...
Growth rate / structural change	...	...	...
Degree of specialization	...	...	...
-VALUE ADDED: (in million dollars)			
311 Food products	4	...	...
313 Beverages	1	...	...
314 Tobacco products	-	...	...
321 Textiles	-	...	...
322 Wearing apparel	-	...	...
323 Leather and fur products	-	...	...
324 Footwear	-	...	...
331 Wood and wood products	9	...	...
332 Furniture and fixtures	1	...	...
341 Paper and paper products	-	...	...
342 Printing and publishing	2	...	...
351 Industrial chemicals	-	...	...
352 Other chemical products	-	...	...
353 Petroleum refineries	-	...	...
354 Misc. petroleum and coal products	-	...	...
355 Rubber products	1	...	...
356 Plastic products	-	...	...
361 Pottery, china and earthenware	-	...	...
362 Glass and glass products	-	...	...
369 Other non-metal mineral products	1	...	...
371 Iron and steel	-	...	...
372 Non-ferrous metals	-	...	...
381 Metal products	1	...	...
382 Non-electrical machinery	-	...	...
383 Electrical machinery	-	...	...
384 Transport equipment	1	...	...
385 Professional and scientific equipment	-	...	...
390 Other manufacturing industries	-	...	...

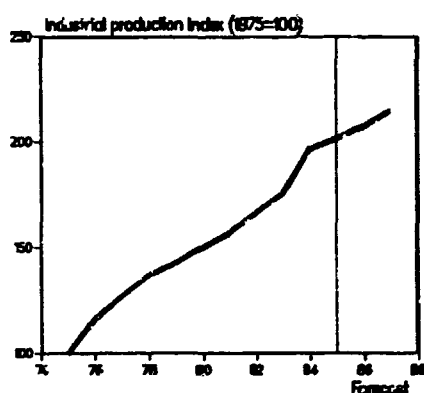
For source, footnotes and comments see "Technical notes" above.

Industrial structural change
(Index of value added: 1970=100)

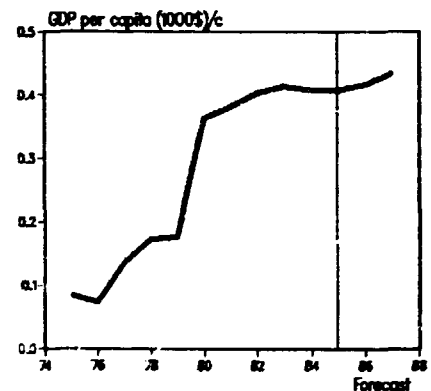


	1975	1980	1983
GDP: /na (in million dollars)	...	...	...
Per capita (in dollars)	...	...	...
Manufacturing share /na (%)	...	...	...
MANUFACTURING:			
Value added /na (in million dollars)	...	...	...
Value added (in million dollars)	1263	3559	...
Industrial production index	100	150	175
Gross output (in million dollars)	4483	13405	...
Employment (in thousands)	285	462	559
-PROFITABILITY: (in percent of gross output):			
Intermediate input (%)	72	73	...
Wages and salaries (%)	8	7	...
Operating surplus (%)	21	19	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	15706	28397	...
Value added / worker	4425	7700	...
Average wage	1186	2087	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	6.92	2.87	4.52
in percentage of θ in 1970-1975	131	54	86
Growth rate / structural change	0.01	1.85	1.15
Degree of specialization	16.0	14.8	16.8
-VALUE ADDED: (in million dollars)			
311 Food products	269	647	...
313 Beverages	38	100	...
314 Tobacco products	41	101	...
321 Textiles	75	184	...
322 Wearing apparel	16	58	...
323 Leather and fur products	1	3	...
324 Footwear	4	10	...
327 Wood and wood products	103	316	...
332 Furniture and fixtures	10	29	...
341 Paper and paper products	13	36	...
342 Printing and publishing	53	141	...
351 Industrial chemicals	45	78	...
352 Other chemical products	36	121	...
353 Petroleum refineries	36	160	...
354 Misc. petroleum and coal products	1	2	...
355 Rubber products	139	296	...
356 Plastic products	16	69	...
361 Pottery, china and earthenware	3	10	...
362 Glass and glass products	6	25	...
369 Other non-metal mineral products	45	163	...
371 Iron and steel	37	77	...
372 Non-ferrous metals	3	12	...
381 Metal products	47	139	...
382 Non-electrical machinery	39	120	...
383 Electrical machinery	140	472	...
384 Transport equipment	38	145	...
385 Professional and scientific equipment	3	24	...
390 Other manufacturing industries	7	21	...

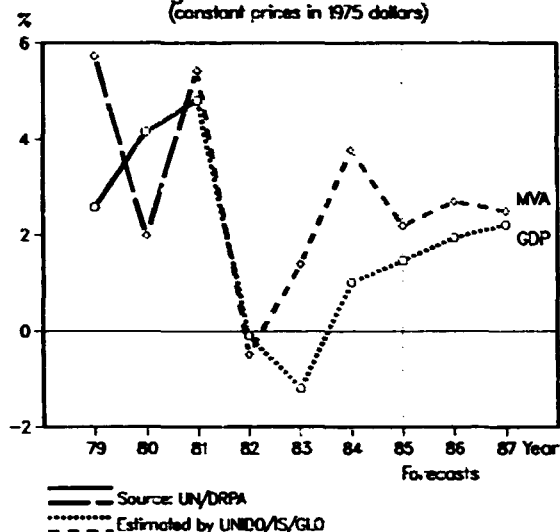
For source, footnotes and comments see "Technical notes" above.



	1975	1980	1983
EDP: /na (in million dollars)	11 /c	56 /c	70 /c
Per capita (in dollars)	84 /c	363 /c	413 /c
Manufacturing share /na (%)
MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
390 Other manufacturing industries

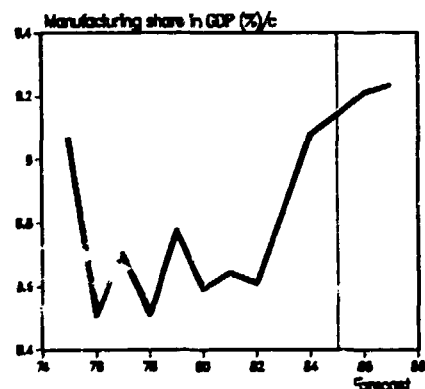
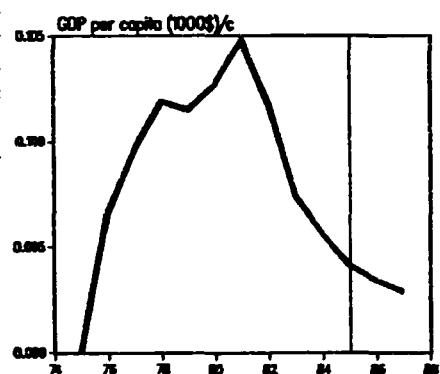


For source, footnotes and comments see "Technical Notes" above.

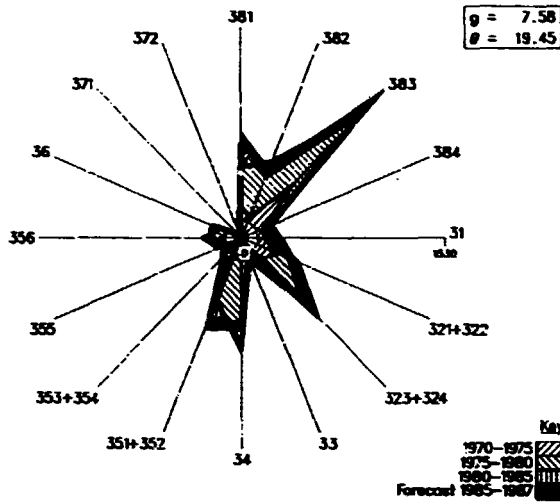
Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

	1975	1980	1983
GDP: /na (in million dollars)	567 /c	729 /c	754 /c
Per capita (in dollars)	90 /c	103 /c	97 /c
Manufacturing share /na (%)	9.1 /c	8.6 /c	8.6 /c
MANUFACTURING:			
Value added /na (in million dollars)	51 /c	63 /c	67 /c
Value added (in million dollars)	66	160	...
Industrial production index	...	...	...
Gross output (in million dollars)	212	480	...
Employment (in thousands)	9	14	...
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	69	67	...
Wages and salaries (%)	10	9	...
Operating surplus (%)	21	24	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	22770	35184	...
Value added / worker	7047	11688	...
Average wage	2245	3231	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	...	...	...
in percentage of θ in 1970-1975	...	...	...
Growth rate / structural change	...	...	...
Degree of specialization	...	...	...
-VALUE ADDED: (in million dollars)			
311 Food products	13	24	...
313 Beverages	2	4	...
314 Tobacco products	6	18	...
321 Textiles	34 a	82 a	...
322 Wearing apparel	- a	- a	...
323 Leather and fur products	- b	- b	...
324 Footwear	- b	- b	...
331 Wood and wood products	- c	- c	...
332 Furniture and fixtures	- c	- c	...
341 Paper and paper products	1 d	2 d	...
342 Printing and publishing	- d	- d	...
351 Industrial chemicals	3 e	5 e	...
352 Other chemical products	- e	- e	...
353 Petroleum refineries	- e	- e	...
354 Misc. petroleum and coal products	- e	- e	...
355 Rubber products	- e	- e	...
356 Plastic products	- e	- e	...
361 Pottery and earthenware	- f	- f	...
362 Glass and glass products	- f	- f	...
369 Other non-metal mineral products	1	3	...
371 Iron and steel	-	-	...
372 Non-ferrous metals	-	-	...
381 Metal products	-	7	...
382 Non-electrical machinery	-	2	...
383 Electrical machinery	-	2	...
384 Transport equipment	2	9	...
385 Professional and scientific equipment	-	-	...
386 Other manufacturing industries	-	-	...

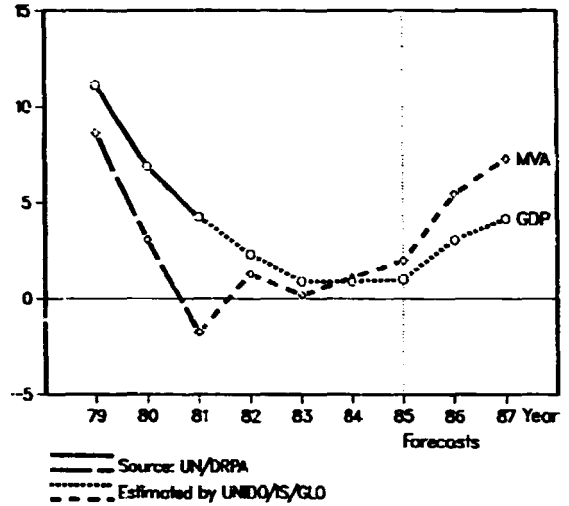
For source, footnotes and comments see "Technical notes" above.



Industrial structural change
(Index of value added: 1970=100)



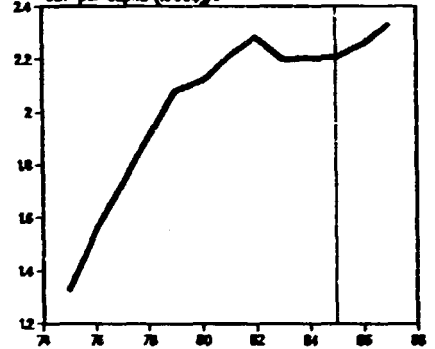
Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



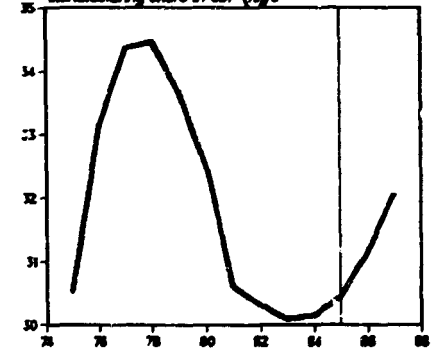
	1975	1980	1983
GDP: /na (in million dollars)	434 /c	771 /c	830 /c
Per capita (in dollars)	1324 /c	2119 /c	2201 /c
Manufacturing share /na (%)	30.5 /c	32.5 /c	30.1 /c
MANUFACTURING:			
Value added /na (in million dollars)	133 /c	251 /c	250 /c
Value added (in million dollars)	104	302	...
Industrial production index	100	174	177
Gross output (in million dollars)	258	706	...
Employment (in thousands)	23	29	32
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	60	57	...
wages and salaries (%)	20	22	...
Operating surplus (%)	20	21	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	11477	24517	...
Value added / worker	4608	10481	...
Average wage	2295	5283	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	5.95	7.30	1.68
in percentage of θ in 1970-1975	59	72	17
Growth rate / structural change	1.40	2.21	0.11
Degree of specialization	23.4	16.9	16.6
-VALUE ADDED: (in million dollars)			
311 Food products	9	20	...
313 Beverages	9	20	...
314 Tobacco products	3	8	...
321 Textiles	7	17	...
322 Wearing apparel	30	88	...
323 Leather and fur products	1	4	...
324 Footwear	1	8	...
331 Wood and wood products	1	2	...
332 Furniture and fixtures	5	14	...
341 Paper and paper products	1	2	...
342 Printing and publishing	5	22	...
351 Industrial chemicals	-	1	...
352 Other chemical products	1	5	...
353 Petroleum refineries	-	-	...
354 Misc. petroleum and coal products	-	-	...
355 Rubber products	5	10	...
356 Plastic products	2	6	...
361 Pottery, china and earthenware	-	1	...
362 Glass and glass products	1	2	...
369 Other non-metal mineral products	2	6	...
371 Iron and steel	-	-	...
372 Non-ferrous metals	-	-	...
381 Metal products	6	14	...
382 Non-electrical machinery	1	5	...
383 Electrical machinery	7	22	...
384 Transport equipment	3	6	...
385 Professional and scientific equipment	1	12	...
386 Other manufacturing industries	2	6	...

For source, footnotes and comments see "Technical notes" above.

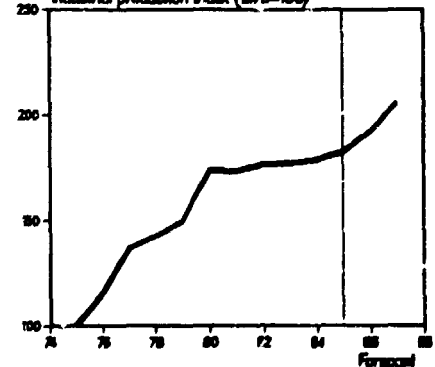
GDP per capita (1000\$)/c



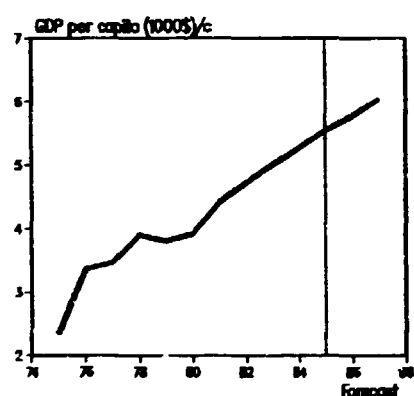
Manufacturing share in GDP (%)



Industrial production index (1975=100)

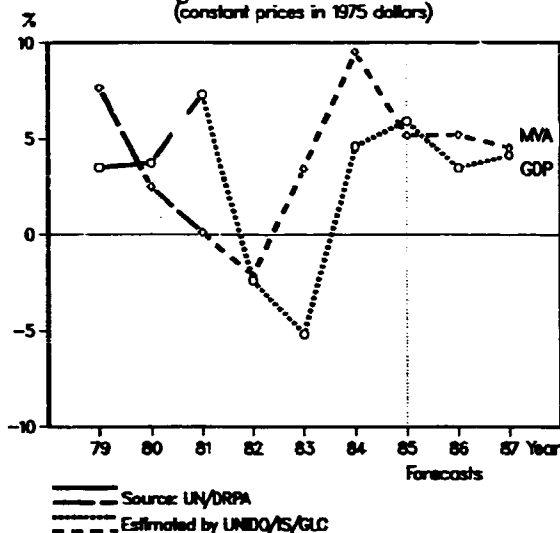


	1975	1980	1983
GDP: /na (in million dollars)	770 /c	1274 /c	1635 /c
Per capita (in dollars)	2348 /c	3906 /c	4999 /c
Manufacturing share /na (%)
M/ MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output):			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 wearing apparel
323 Leather and fur products
324 Footwear
331 wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
390 Other manufacturing industries



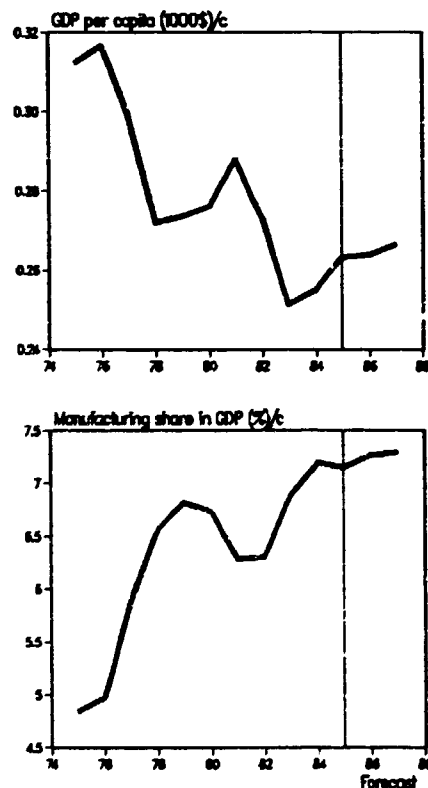
For source, footnotes and comments see "Technical notes" above.

Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



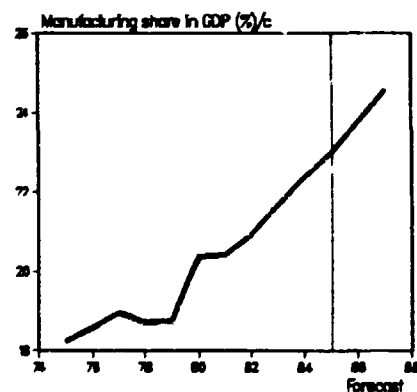
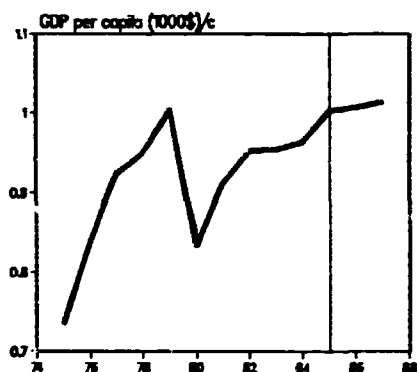
	1975	1980	1983
GDP: /na (in million dollars)	444 /c	450 /c	447 /c
Per capita (in dollars)	312 /c	276 /c	251 /c
Manufacturing share /na (%)	4.8 /c	6.7 /c	6.9 /c
MANUFACTURING:			
Value added /na (in million dollars)	21 /c	30 /c	31 /c
Value added (in million dollars)	21	...	...
Industrial production index	...	...	...
Gross output (in million dollars)	...	...	...
Employment (in thousands)	...	...	...
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	75	...	...
wages and salaries (%)	17	...	...
Operating surplus (%)	8	...	...
-PRODUCTIVITY: (in dollars):			
Gross output / worker	24196	...	...
Value added / worker	6050	...	...
Average wage	4033	...	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	...	...	...
in percentage of θ in 1970-1975	...	...	...
Growth rate / structural change	...	...	...
Degree of specialization	...	...	...
-VALUE ADDED: (in million dollars)			
311 Food products	...	...	...
313 Beverages	...	...	...
314 Tobacco products	...	...	...
321 Textiles	...	...	...
322 wearing apparel	...	...	...
323 Leather and fur products	...	...	...
324 Footwear	...	...	...
331 Wood and wood products	...	...	...
332 Furniture and fixtures	...	...	...
341 Paper and paper products	...	...	...
342 Printing and publishing	...	...	...
351 Industrial chemicals	...	...	...
352 Other chemical products	...	...	...
353 Petroleum refineries	...	...	...
354 Misc. petroleum and coal products	...	...	...
355 Rubber products	...	...	...
356 Plastic products	...	...	...
361 Pottery, china and earthenware	...	...	...
362 Glass and glass products	...	...	...
369 Other non-metal mineral products	...	...	...
371 Iron and steel	...	...	...
372 Non-ferrous metals	...	...	...
381 Metal products	...	...	...
382 Non-electrical machinery	...	...	...
383 Electrical machinery	...	...	...
384 Transport equipment	...	...	...
385 Professional and scientific equipment	...	...	...
389 Other manufacturing industries	...	...	...

For source, footnotes and comments see "Technical notes" above.

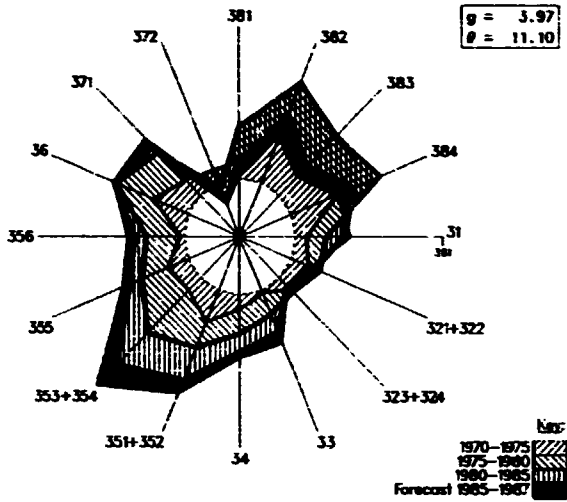


	1975	1980	1983
GDP: /na (in million dollars)	630 /c	773 /c	914 /c
Per capita (in dollars)	735 /c	834 /c	955 /c
Manufacturing share /na (%)	18.3 /c	20.4 /c	21.7 /c
MANUFACTURING:			
Value added /na (in million dollars)	115 /c	157 /c	198 /c
Value added (in million dollars)	90	136	129
Industrial production index	---	---	---
Gross output (in million dollars)	402	633	614
Employment (in thousands)	30	43	47
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	78	79	79
wages and salaries (%)	8	11	11
Operating surplus (%)	14	10	10
-PRODUCTIVITY: (in dollars)			
Gross output / worker	10353	14737	13167
Value added / worker	2977	3162	2766
Average wage	1049	1642	1396
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	---	---	---
in percentage of θ in 1970-1975	---	---	---
Growth rate / structural change	---	---	---
Degree of specialization	---	---	---
-VALUE ADDED: (in million dollars)			
311 Food products	51	36	38
313 Beverages	6	10	6
314 Tobacco products	1	2	5
321 Textiles	1	9	7
322 Wearing apparel	9	28	31
323 Leather and fur products	-	1	1
324 Footwear	1	2	2
331 Wood and wood products	1	1	1
332 Furniture and fixtures	1	2	1
341 Paper and paper products	-	1	2
342 Printing and publishing	2	5	4
351 Industrial chemicals	2	5	4
352 Other chemical products	1	3	2
353 Petroleum refineries	-	-	-
354 Misc. petroleum and coal products	-	-	-
355 Rubber products	-	1	1
356 Plastic products	-	1	2
361 Pottery, china and earthenware	-	-	-
362 Glass and glass products	-	-	-
369 Other non-metal mineral products	3	6	4
371 Iron and steel	-	3	2
372 Non-ferrous metals	-	-	-
381 Metal products	2	5	3
382 Non-electrical machinery	1	3	2
383 Electrical machinery	3	3	2
384 Transport equipment	1	2	1
385 Professional and scientific equipment	-	2	2
390 Other manufacturing industries	1	4	4

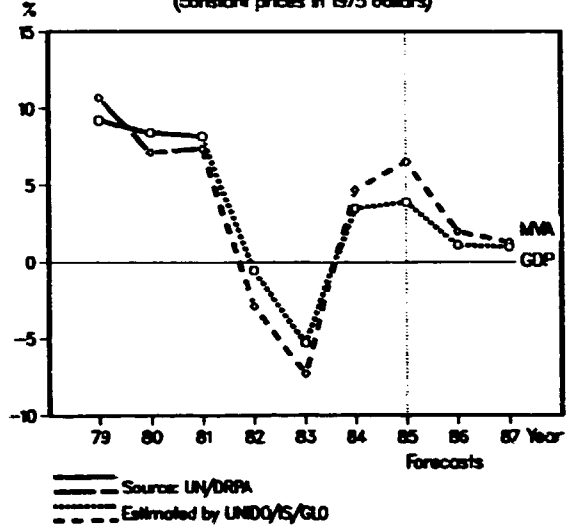
For source, footnotes and comments see "Technical notes" above.



Industrial structural change
(Index of value added: 1970=100)

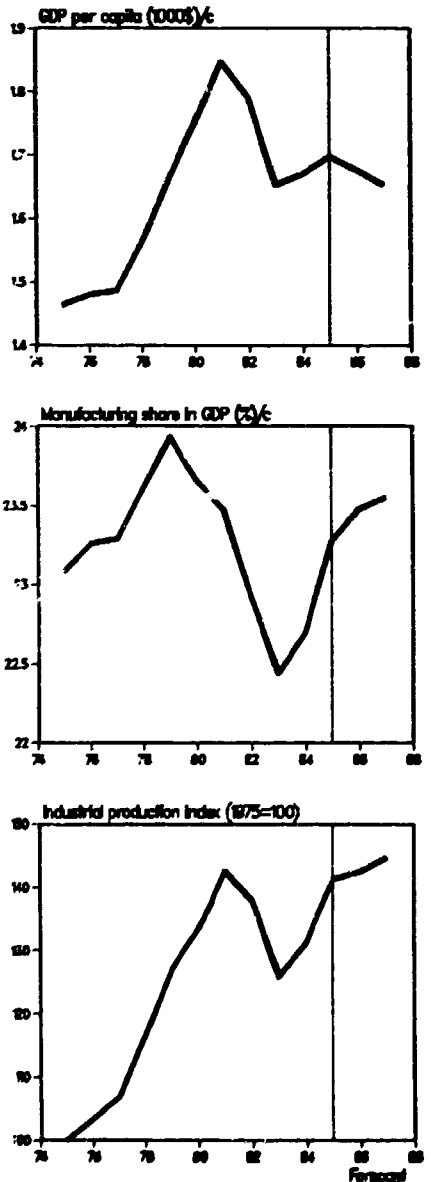


Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



	1975	1980	1983
GDP: /na (in million dollars)	88003 /c	121620 /c	123966 /c
Per capita (in dollars)	1463 /c	1753 /c	1653 /c
Manufacturing share /na (%)	23.1 /c	23.7 /c	22.4 /c
MANUFACTURING:			
Value added /na (in million dollars)	20311 /c	28764 /c	27819 /c
Value added (in million dollars)	14575	31544	24405
Industrial production index	100	134	126
Gross output (in million dollars)	38621	76098	56659
Employment (in thousands)	1492	1827	1691
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	62	59	57
Wages and salaries (%)	16	15	13
Operating surplus (%)	22	26	30
-PRODUCTIVITY: (in dollars)			
Gross output / worker	25891	41656	33501
Value added / worker	9771	17267	14430
Average wage	4168	6249	4288
..STRUCTURAL INDICES:			
Structural change θ (in degrees)	3.08	2.37	5.04
in percentage of θ in 1970-1975	122	94	195
Growth rate / structural change	1.44	2.19	-1.71
Degree of specialization	11.1	10.5	12.0
-VALUE ADDED: (in million dollars)			
311 Food products	1611	2712	1929
313 Beverages	985	1774	1293
314 Tobacco products	317	633	527
321 Textiles	991	1922	1402
322 Wearing apparel	310	603	446
323 Leather and fur products	66	131	94
324 Footwear	138	264	163
331 Wood and wood products	169	464	265
332 Furniture and fixtures	122	308	181
341 Paper and paper products	439	933	687
342 Printing and publishing	355	832	614
351 Industrial chemicals	761	1586	1623
352 Other chemical products	1119	2172	1854
353 Petroleum refineries	861	2450	3681
354 Misc. petroleum and coal products	53	105	67
355 Rubber products	264	588	563
356 Plastic products	268	744	567
361 Pottery, china and earthenware	56	112	91
362 Glass and glass products	211	498	342
369 Other non-metal mineral products	494	1015	669
371 Iron and steel	941	2084	1461
372 Non-ferrous metals	288	722	484
381 Metal products	877	1953	1251
382 Non-electrical machinery	689	1654	959
383 Electrical machinery	843	1888	1163
384 Transport equipment	1037	2882	1577
385 Professional and scientific equipment	88	209	190
389 Other manufacturing industries	122	347	280

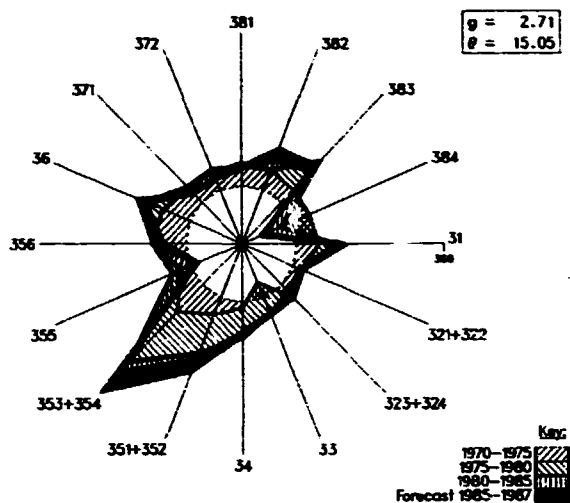
For source, footnotes and comments see "Technical notes" above.



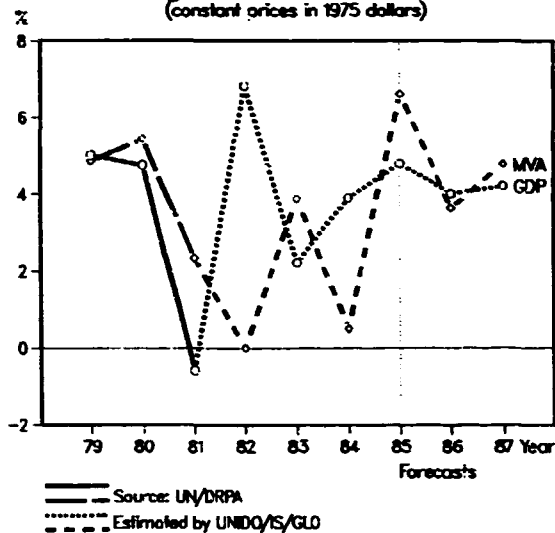
	1975	1980	1983
GDP: /na (in million dollars)
Per capita (in dollars)
Manufacturing share /na (%)
MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)	48	60	...
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
389 Other manufacturing industries

For source, footnotes and comments see "Technical notes" above.

Industrial structural change
(Index of value added: 1970=100)



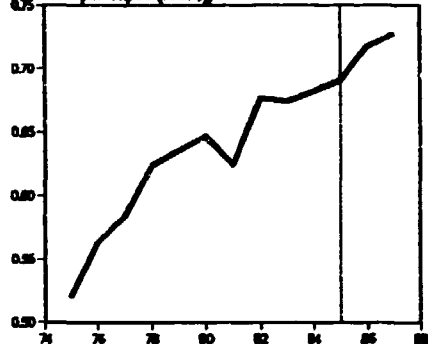
Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



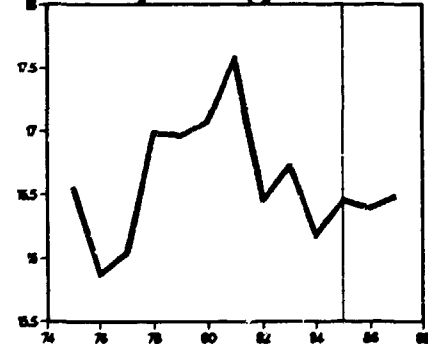
	1975	1980	1983
GDP: /na (in million dollars)	8994 /c	12968 /c	14078 /c
Per capita (in dollars)	520 /c	647 /c	674 /c
Manufacturing share /na (%)	16.6 /c	17.1 /c	16.7 /c
MANUFACTURING:			
Value added /na (in million dollars)	1489 /c	2214 /c	2354 /c
Value added (in million dollars)	...	1727	...
Industrial production index	100	115	117
Gross output (in million dollars)	...	7365	...
Employment (in thousands)	...	193	214
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	...	77	...
wages and salaries (%)	...	12	...
Operating surplus (%)	...	12	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	...	38135	...
Value added / worker	...	8940	...
Average wage	...	4519	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	3.03	2.82	0.78
in percentage of θ in 1970-1975	102	95	26
Growth rate / structural change	0.50	0.28	1.86
Degree of specialization	23.1	21.7	23.4
-VALUE ADDED: (in million dollars)			
311 Food products	...	304	...
313 Beverages	...	62	...
314 Tobacco products	...	38	...
321 Textiles	...	202	...
322 Wearing apparel	...	32	...
323 Leather and fur products	...	15	...
324 Footwear	...	24	...
331 Wood and wood products	...	31	...
332 Furniture and fixtures	...	19	...
341 Paper and paper products	...	64	...
342 Printing and publishing	...	26	...
351 Industrial chemicals	...	127	...
352 Other chemical products	...	87	...
353 Petroleum refineries	...	179	...
354 Misc. petroleum and coal products	...	-	...
355 Rubber products	...	34	...
356 Plastic products	...	20	...
361 Pottery, china and earthenware	...	6	...
362 Glass and glass products	...	10	...
369 Other non-metal mineral products	...	154	...
371 Iron and steel	...	7	...
372 Non-ferrous metals	...	8	...
381 Metal products	...	110	...
382 Non-electrical machinery	...	30	...
383 Electrical machinery	...	81	...
384 Transport equipment	...	82	...
385 Professional and scientific equipment	...	1	...
390 Other manufacturing industries	...	2	...

For source, footnotes and comments see "Technical notes" above.

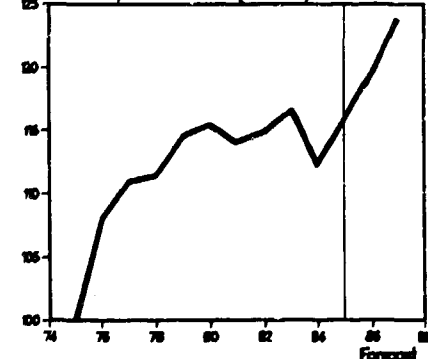
GDP per capita (1000\$)/c



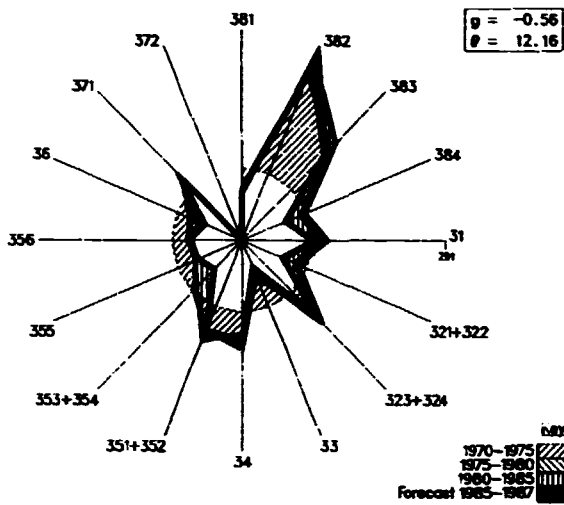
Manufacturing share in GDP (%)/c



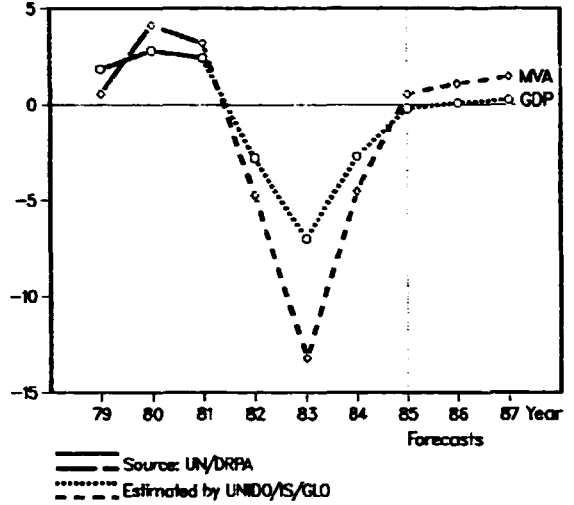
Industrial production index (1975=100)



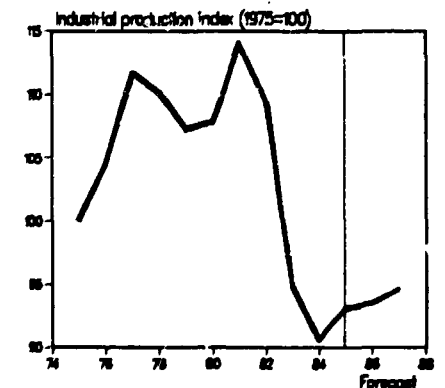
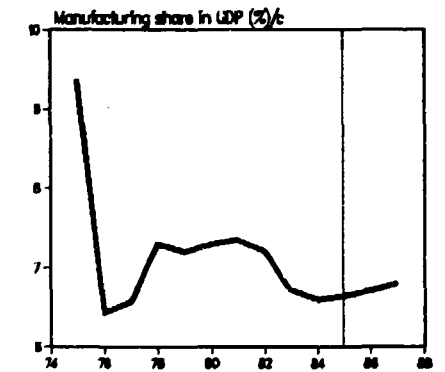
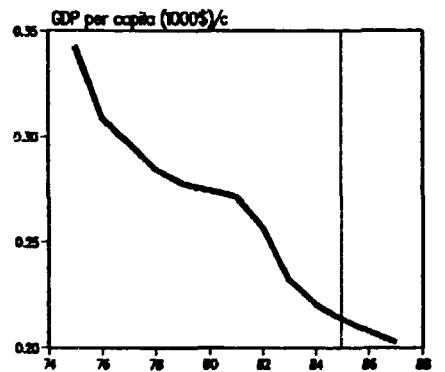
Industrial structural change
(Index of value added: 1970=100)



Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

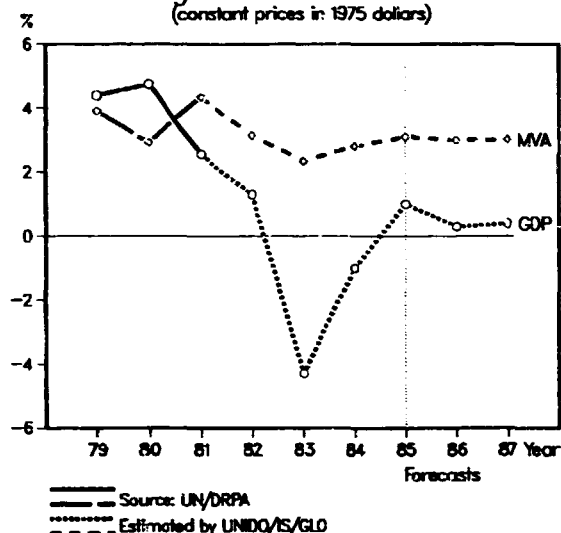


	1975	1980	1983
GDP: /na (in million dollars)	3333 /c	3329 /c	3083 /c
Per capita (in dollars)	343 /c	275 /c	233 /c
Manufacturing share /na (%)	9.4 /c	7.3 /c	6.7 /c
MANUFACTURING:			
Value added /na (in million dollars)	312 /c	243 /c	207 /c
Value added (in million dollars)	...	...	...
Industrial production index	100	108	95
Gross output (in million dollars)	...	...	...
Employment (in thousands)	...	...	...
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	...	...	...
Wages and salaries (%)	...	...	...
Operating surplus (%)	...	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	...	...	...
Value added / worker	...	...	...
Average wage	...	...	...
-STRUCTURAL INDICES:			
Structural change B (in degrees)	5.90	2.52	0.80
in percentage of B in 1970-1975	104	44	14
Growth rate / structural change	-3.56	0.21	-16.55
Degree of specialization	20.3	21.1	20.7
-VALUE ADDED: (in million dollars)			
311 Food products	...	...	...
313 Beverages	...	...	...
314 Tobacco products	...	...	...
321 Textiles	...	...	...
322 Wearing apparel	...	...	...
323 Leather and fur products	...	...	...
324 Footwear	...	...	...
331 Wood and wood products	...	...	...
332 Furniture and fixtures	...	...	...
341 Paper and paper products	...	...	...
342 Printing and publishing	...	...	...
351 Industrial chemicals	...	...	...
352 Other chemical products	...	...	...
353 Petroleum refineries	...	...	...
354 Misc. petroleum and coal products	...	...	...
355 Rubber products	...	...	...
356 Plastic products	...	...	...
361 Pottery, china and earthenware	...	...	...
362 Glass and glass products	...	...	...
369 Other non-metal mineral products	...	...	...
371 Iron and steel	...	...	...
372 Non-ferrous metals	...	...	...
381 Metal products	...	...	...
382 Non-electrical machinery	...	...	...
383 Electrical machinery	...	...	...
384 Transport equipment	...	...	...
385 Professional and scientific equipment	...	...	...
390 Other manufacturing industries	...	...	...

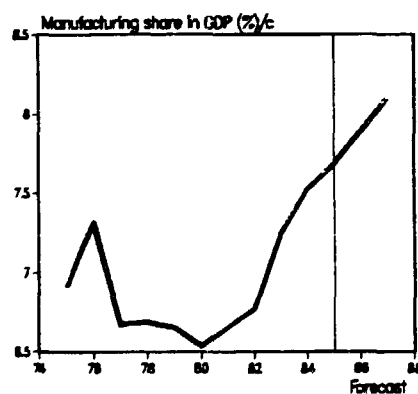
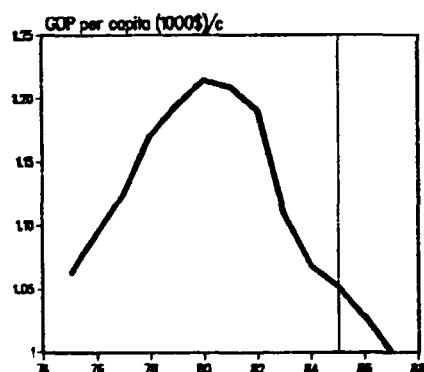


For source, footnotes and comments see "Technical notes" above.

Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

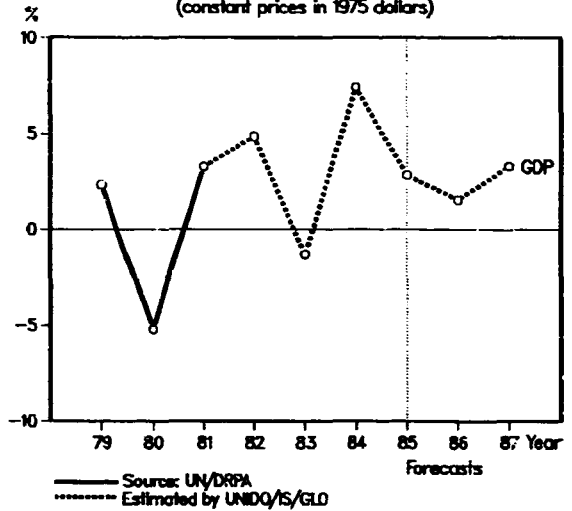


	1975	1980	1983
GDP: /na (in million dollars)	1253 /c	1639 /c	1630 /c
Per capita (in dollars)	1062 /c	1214 /c	1109 /c
Manufacturing share /na (%)	6.9 /c	6.5 /c	7.2 /c
MANUFACTURING:			
Value added /na (in million dollars)	87 /c	107 /c	118 /c
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
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332 Furniture and fixtures
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356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
368 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
389 Other manufacturing industries

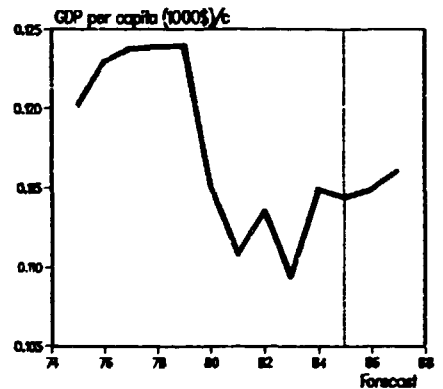


For source, footnotes and comments see "Technical notes" above.

Annual growth rate of GDP
(constant prices in 1975 dollars)

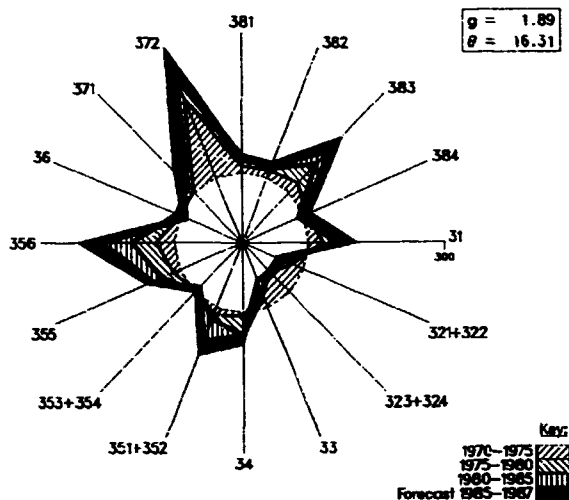


	1975	1980	1983
GDP: /na (in million dollars)	1513 /c	1612 /c	1723 /c
Per capita (in dollars)	120 /c	115 /c	109 /c
Manufacturing share /na (%)
MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)	...	58	...
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
390 Other manufacturing industries

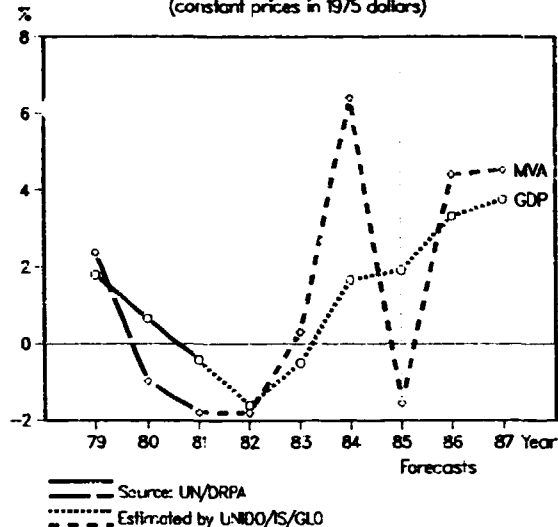


For source, footnotes and comments see "Technical notes" above.

Industrial structural change (index of value added: 1970=100)

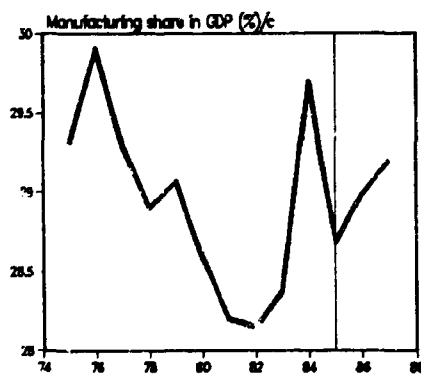
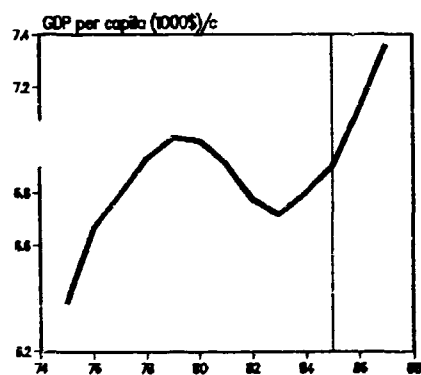


Annual growth rates of GDP and MVA (constant prices in 1975 dollars)



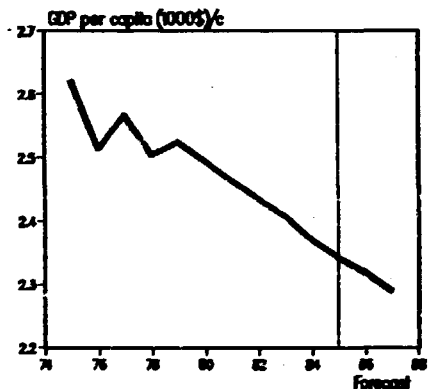
	1975	1980	1983
GDP: /na (in million dollars):	87144 /c	98961 /c	96480 /c
Per capita (in dollars)	6384 /c	6999 /c	6718 /c
Manufacturing share /na (%)	29.3 /c	28.6 /c	28.4 /c
MANUFACTURING:			
Value added /na (in million dollars)	25538 /c	28297 /c	27374 /c
Value added (in million dollars)	19184	30196	...
Industrial production index	100	111	...
Gross output (in million dollars)	60646	109783	...
Employment (in thousands)	1027	944	...
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	68	73	...
Wages and salaries (%)	17	15	...
Operating surplus (%)	15	12	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	59052	116296	...
Value added / worker	18679	31876	...
Average wage	10103	17938	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	3.54	2.74	2.99
in percentage of θ in 1970-1975	116	90	98
Growth rate / structural change	-1.59	-0.14	0.12
Degree of specialization	14.4	15.0	15.6
-VALUE ADDED: (in million dollars)			
311 Food products	2711	4277	...
313 Beverages	373	574	...
314 Tobacco products	198	252	...
321 Textiles	626	831	...
322 Wearing apparel	262	353	...
323 Leather and fur products	44	65	...
324 Footwear	59	116	...
331 Wood and wood products	396	579	...
332 Furniture and fixtures	262	408	...
341 Paper and paper products	456	771	...
342 Printing and publishing	1217	2327	...
351 Industrial chemicals	1788	2131	...
352 Other chemical products	598	856	...
353 Petroleum refineries	1340	3103	...
354 Misc. petroleum and coal products	59	76	...
355 Rubber products	103	146	...
356 Plastic products	313	443	...
361 Pottery, china and earthenware	12	15	...
362 Glass and glass products	119	186	...
369 Other non-metal mineral products	622	1018	...
371 Iron and steel	515	756	...
372 Non-ferrous metals	246	539	...
381 Metal products	1502	2257	...
382 Non-electrical machinery	1692	2317	...
383 Electrical machinery	2097	3547	...
384 Transport equipment	1288	1627	...
385 Professional and scientific equipment	234	348	...
390 Other manufacturing industries	71	191	...

For source, footnotes and comments see "Technical notes" above.



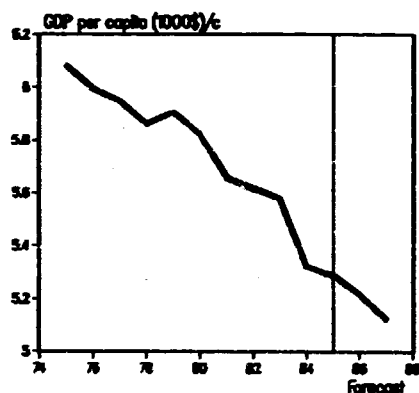
	1975	1980	1983
GDP: /na (in million dollars)	616 /c	616 /c	616 /c
Per capita (in dollars)	2621 /c	2494 /c	2406 /c
Manufacturing share /na (%)
MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change B (in degrees)
in percentage of B in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
389 Other manufacturing industries

For source, footnotes and comments see "Technical notes" above.

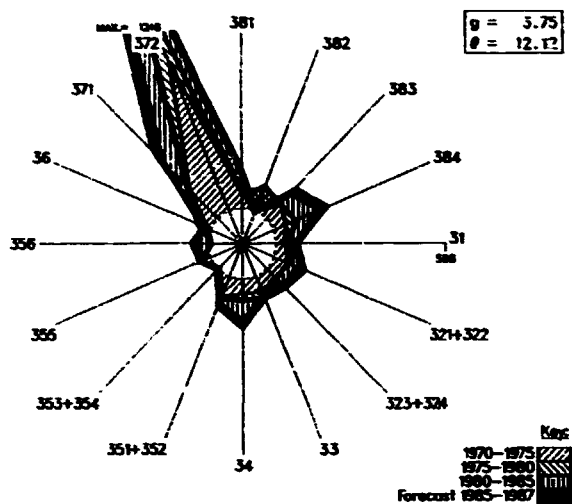


	1975	1980	1983
GDP: /na (in million dollars)	809 /c	809 /c	809 /c
Per capita (in dollars)	6083 /c	5820 /c	5578 /c
Manufacturing share /na (%)
MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
389 Other manufacturing industries

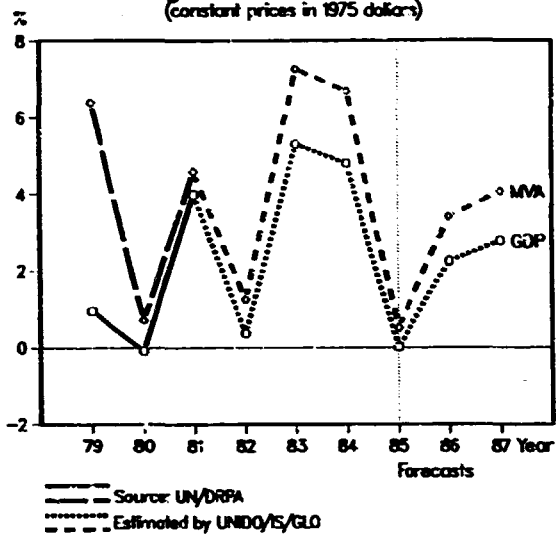
For source, footnotes and comments see "Technical notes" above.



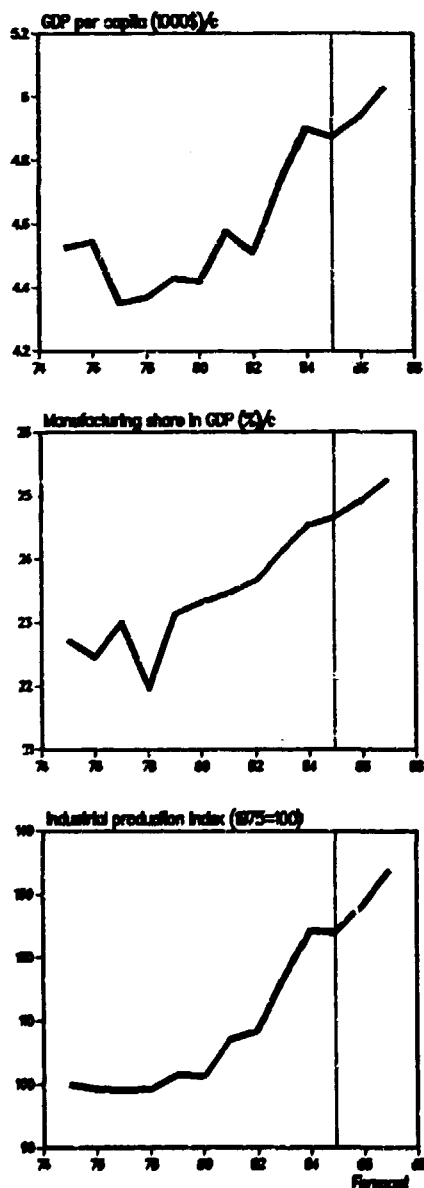
Industrial structural change
(Index of value added: 1970=100)



Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

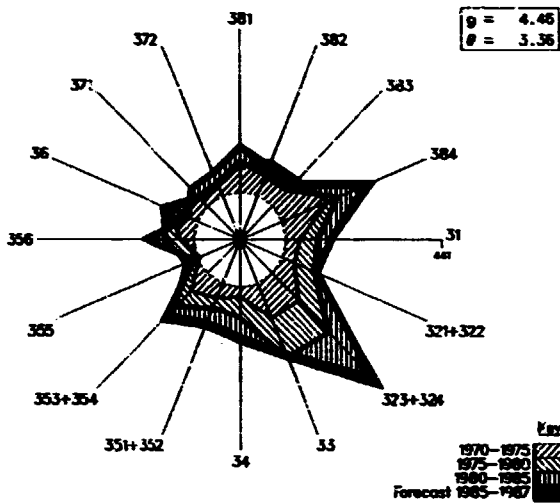


	1975	1980	1983
GDP: /na (in million dollars)	13948 /c	13753 /c	15116 /c
Per capita (in dollars)	4524 /c	4418 /c	4719 /c
Manufacturing share /na (%)	22.7 /c	23.3 /c	24.1 /c
MANUFACTURING:			
Value added /na (in million dollars)	3170 /c	3208 /c	3643 /c
Value added (in million dollars)	2801	4756	...
Industrial production index	100	101	116
Gross output (in million dollars)	8717	15324	...
Employment (in thousands)	268	285	293
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	68	69	...
Wages and salaries (%)	21	21	...
Operating surplus (%)	11	10	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	32467	53842	...
Value added / worker	10435	16711	...
Average wage	6943	11144	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	1.25	2.82	1.10
in percentage of θ in 1970-1975	43	98	38
Growth rate / structural change	2.01	-0.06	6.75
Degree of specialization	14.0	14.1	14.2
-VALUE ADDED: (in million dollars)			
311 Food products	604	1098	...
313 Beverages	71	110	...
314 Tobacco products	18	30	...
321 Textiles	158	222	...
322 Wearing appare'	114	185	...
323 Leather and fur products	22	45	...
324 Footwear	31	55	...
331 Wood and wood products	189	253	...
332 Furniture and fixtures	56	92	...
341 Paper and paper products	184	266	...
342 Printing and publishing	189	294	...
351 Industrial chemicals	65	140	...
352 Other chemical products	69	195	...
353 Petroleum refineries	11	26	...
354 Misc. petroleum and coal products	5	9	...
355 Rubber products	52	96	...
356 Plastic products	48	110	...
361 Pottery, china and earthenware	7	13	...
362 Glass and glass products	30	44	...
369 Other non-metal mineral products	98	114	...
371 Iron and steel	54	93	...
372 Non-ferrous metals	39	82	...
381 Metal products	228	371	...
382 Non-electrical machinery	122	235	...
383 Electrical machinery	168	239	...
384 Transport equipment	175	318	...
385 Professional and scientific equipment	8	14	...
386 Other manufacturing industries	22	45	...

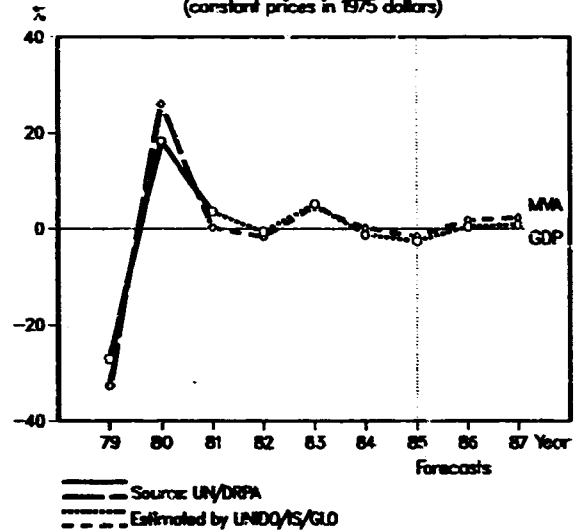


For source, footnotes and comments see "Technical notes" above.

Industrial structural change
(Index of value added: 1970=100)

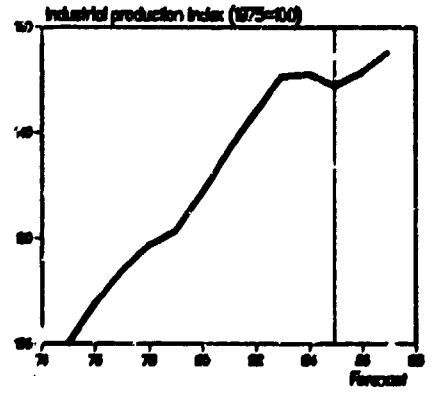
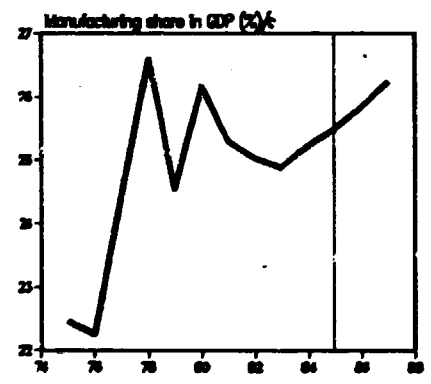
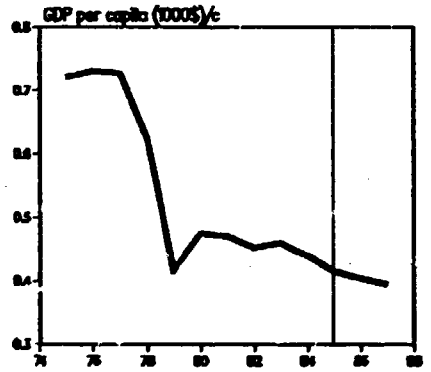


Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

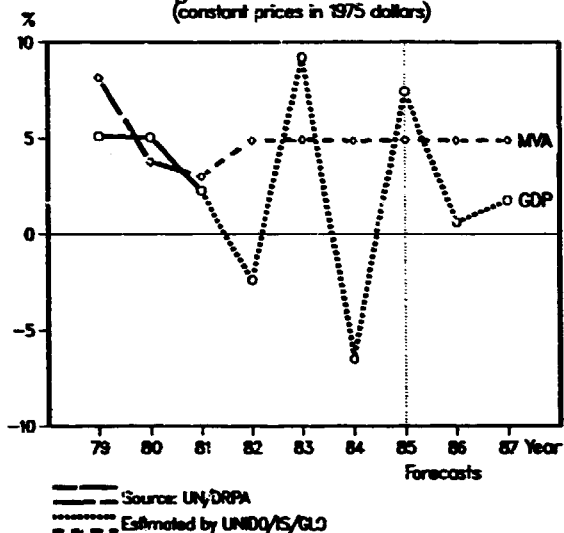


	1975	1980	1983
GDP: /na (in million dollars)	1559 /c	1298 /c	1405 /c
Per capita (in dollars)	721 /c	475 /c	460 /c
Manufacturing share /na (%)	22.5 /c	26.2 /c	24.9 /c
MANUFAC 'RING:			
Value added /na (in million dollars)	350 /c	340 /c	350 /c
Value added (in million dollars)	350	354	...
Industrial production index	100	129	151
Gross output (in million dollars)	435	886	...
Employment (in thousands)	27	34	43
-PROFITABILITY: (% of gross output)			
Intermediate input (%)	58	60	...
Wages and salaries (%)	7	12	...
Operating surplus (%)	35	28	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	31440	26354	...
Value added / worker	13178	10431	...
Average wage	2045	3040	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	3.37	1.47	0.23
in percentage of θ in 1970-1975	117	51	8
Growth rate / structural change	1.39	4.13	20.49
Degree of specialization	31.5	32.0	33.5
-VALUE ADDED: (in million dollars)			
311 Food products	134	76	...
313 Beverages	31	70	...
314 Tobacco products	14	40	...
321 Textiles	24	14	...
322 Wearing apparel	6	6	...
323 Leather and fur products	3	4	...
324 Footwear	7	6	...
331 Wood and wood products	14	4	...
332 Furniture and fixtures	3	1	...
341 Paper and paper products	4	1	...
342 Printing and publishing	6	6	...
351 Industrial chemicals	18	16	...
352 Other chemical products	13	21	...
353 Petroleum refineries	28	52	...
354 Misc. petroleum and coal products	-	-	...
355 Rubber products	1	2	...
356 Plastic products	6	7	...
361 Pottery, china and earthenware	2	-	...
362 Glass and glass products	1	-	...
369 Other non-metal mineral products	14	10	...
371 Iron and steel	-	-	...
372 Non-ferrous metals	-	-	...
381 Metal products	14	13	...
382 Non-electrical machinery	2	1	...
383 Electrical machinery	4	2	...
384 Transport equipment	1	1	...
385 Professional and scientific equipment	1	1	...
386 Other manufacturing industries	1	1	...

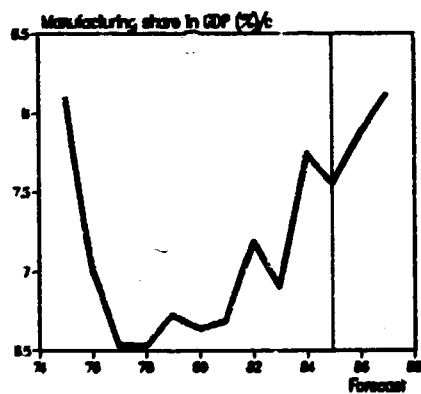
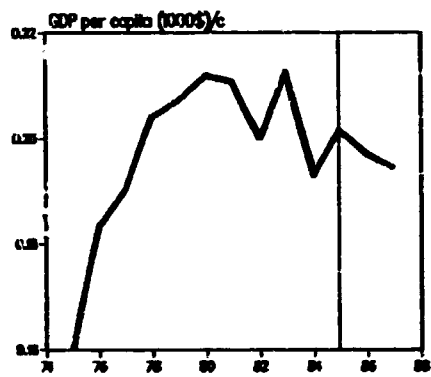
For source, footnotes and comments see "Technical notes" above.



Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

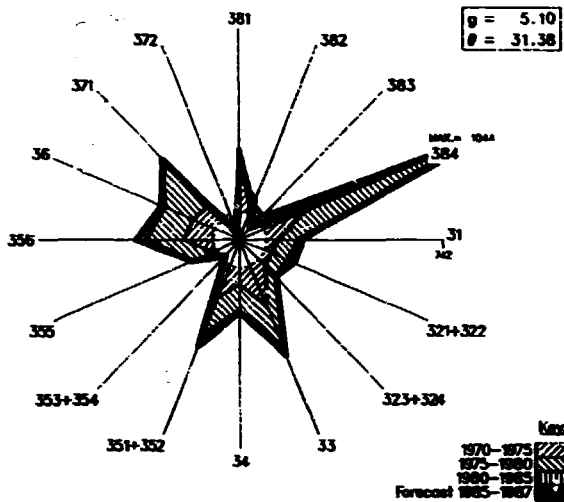


	1975	1980	1983
GDP: /na (in million dollars)	736 /c	1125 /c	1226 /c
Per capita (in dollars)	160 /c	212 /c	212 /c
Manufacturing share /na (%)	8.1 /c	6.6 /c	6.9 /c
MANUFACTURING:			
Value added /na (in million dollars)	60 /c	75 /c	85 /c
Value added (in million dollars)	...	30	...
Industrial production index
Gross output (in million dollars)	...	87	...
Employment (in thousands)	...	2	...
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	...	65	...
Wages and salaries (%)	...	15	...
Operating surplus (%)	...	20	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	...	43457	...
Value added / worker	...	17045	...
Average wage	...	655	...
-STRUCTURAL INDICES:			
Structural change B (in degrees)
in percentage of B in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products	...	2	...
313 Beverages	...	7	...
314 Tobacco products
321 Textiles	...	6	...
322 Wearing apparel	...	1	...
323 Leather and fur products
324 Footwear	...	1	...
331 Wood and wood products	...	-	...
332 Furniture and fixtures	...	-	...
341 Paper and paper products	...	-	...
342 Printing and publishing	...	2	...
351 Industrial chemicals	...	2	...
352 Other chemical products	...	3	...
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products	...	1	...
361 Pottery, china and earthenware	...	-	...
362 Glass and glass products
369 Other non-metal mineral products	...	2	...
371 Iron and steel
372 Non-ferrous metals
381 Metal products	...	3	...
382 Non-electrical machinery	...	-	...
383 Electrical machinery	...	-	...
384 Transport equipment
385 Professional and scientific equipment
389 Other manufacturing industries

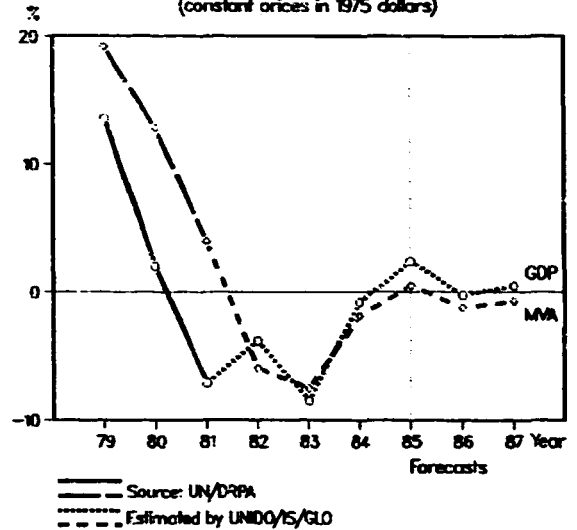


For source, footnotes and comments see "Technical notes" above.

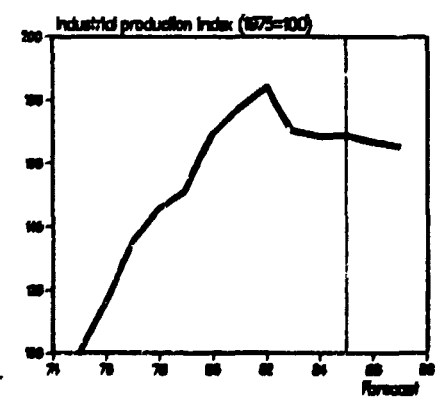
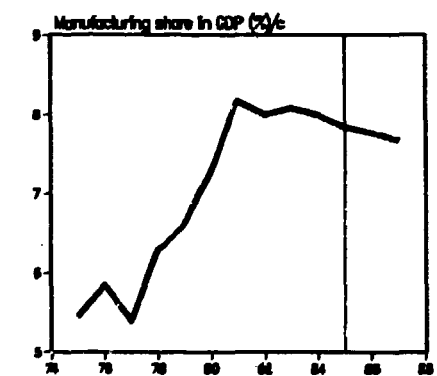
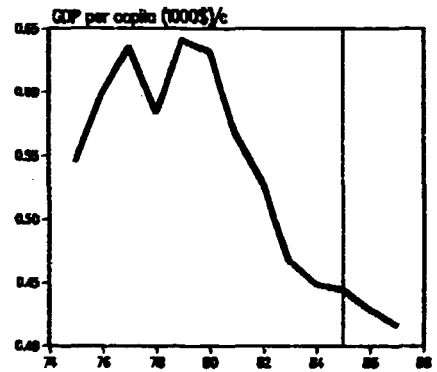
Industrial structural change
(Index of value added: 1970=100)



Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

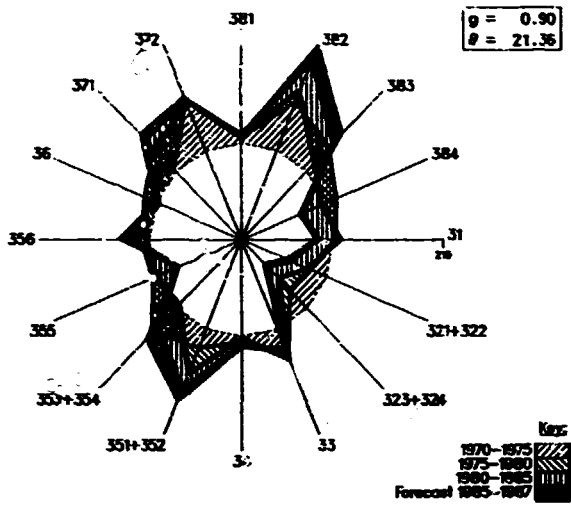


	1975	1980	1983
GDP: /na (in million dollars)	36906 /c	50901 /c	41620 /c
Per capita (in dollars)	545 /c	632 /c	468 /c
Manufacturing share /na (%)	5.4 /c	7.3 /c	8.1 /c
MANUFACTURING:			
Value added /na (in million dollars)	2011 /c	3716 /c	3361 /c
Value added (in million dollars)	1835	5557	...
Industrial production index	100	170	170
Gross output (in million dollars)	4246	12694	...
Employment (in thousands)	241	291	402
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	57	56	...
Wages and salaries (%)	9	10	...
Operating surplus (%)	34	34	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	17582	43691	...
Value added / worker	7598	19128	...
Average wage	1656	4264	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	12.11	11.52	0.65
in percentage of θ in 1970-1975	111	106	6
Growth rate / structural change	2.21	1.06	-11.48
Degree of specialization	16.6	20.1	22.3
-VALUE ADDED: (in million dollars)			
311 Food products	325	577	...
313 Beverages	149	992	...
314 Tobacco products	60	357	...
321 Textiles	316	612	...
322 Wearing apparel	5	5	...
323 Leather and fur products	11	21	...
324 Footwear	22	43	...
331 Wood and wood products	50	73	...
332 Furniture and fixtures	21	88	...
341 Paper and paper products	48	94	...
342 Printing and publishing	68	161	...
351 Industrial chemicals	15	35	...
352 Other chemical products	180	728	...
353 Petroleum refineries	...	...	...
354 Misc. petroleum and coal products	108	290	...
355 Rubber products	64	79	...
356 Plastic products	32	90	...
361 Pottery, china and earthenware	1	1	...
362 Glass and glass products	9	60	...
365 Other non-metal mineral products	90	179	...
371 Iron and steel	2	20	...
372 Non-ferrous metals	15	94	...
381 Metal products	164	353	...
382 Non-electrical machinery	6	61	...
383 Electrical machinery	31	113	...
384 Transport equipment	22	424	...
385 Professional and scientific equipment	-	-	...
389 Other manufacturing industries	15	17	...

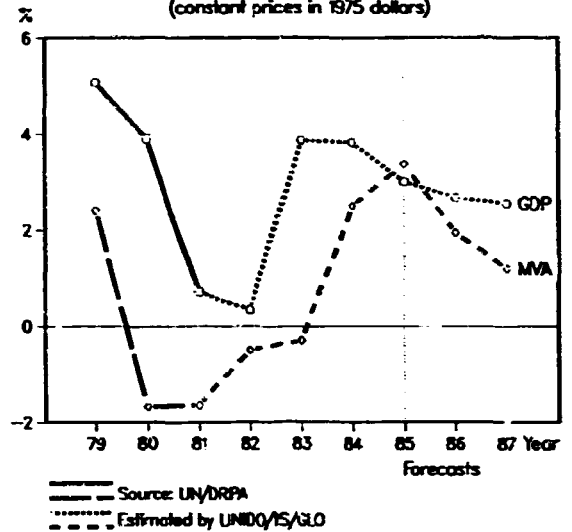


For source, footnotes and comments see "Technical notes" above.

Industrial structural change
(Index of value added: 1970=100)

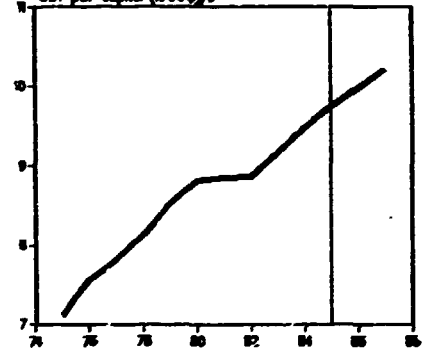


Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

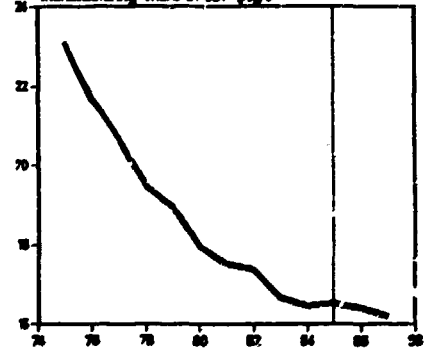


	1975	1980	1983
GDP: /na (in billion dollars)	28528 /c	36023 /c	37806 /c
Per capita (in dollars)	7114 /c	8807 /c	9154 /c
Manufacturing share /na (%)	23.1 /c	17.9 /c	16.7 /c
MANUFACTURING:			
Value added /na (in million dollars)	6589 /c	6462 /c	6305 /c
Value added (in million dollars)	6373	9776	7881
Industrial production index	100	97	92
Gross output (in million dollars)	18794	31799	25785
Employment (in thousands)	364	354	314
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	66	69	69
Wages and salaries (%)	19	18	18
Operating surplus (%)	15	13	13
-PRODUCTIVITY: (in dollars)			
Gross output / worker	51673	89854	82143
Value added / worker	17523	27622	25106
Average wage	9889	15922	14504
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	5.37	4.16	3.74
in percentage of θ in 1970-1975	141	109	98
Growth rate / structural change	-0.64	-0.84	-0.22
Degree of specialization	14.4	14.5	14.2
-VALUE ADDED: (in million dollars)			
311 Food products	848	1477	1292
313 Beverages	192	292	278
314 Tobacco products	20	33	26
321 Textiles	138	213	129
322 Wearing apparel	92	101	58
323 Leather and fur products	15	18	11
324 Footwear	17	24	11
331 Wood and wood products	382	587	403
332 Furniture and fixtures	150	196	158
341 Paper and paper products	355	452	389
342 Printing and publishing	376	662	658
351 Industrial chemicals	222	452	367
352 Other chemical products	153	227	208
353 Petroleum refineries	90	103	-
354 Misc. petroleum and coal products	40	53	47
355 Rubber products	36	51	34
356 Plastic products	106	170	127
361 Pottery, china and earthenware	21	26	18
362 Glass and glass products	29	55	48
369 Other non-metal mineral products	188	282	240
371 Iron and steel	414	385	273
372 Non-ferrous metals	288	743	541
381 Metal products	407	596	450
382 Non-electrical machinery	549	934	835
383 Electrical machinery	411	547	528
384 Transport equipment	783	1001	678
385 Professional and scientific equipment	15	32	30
386 Other manufacturing industries	48	58	44

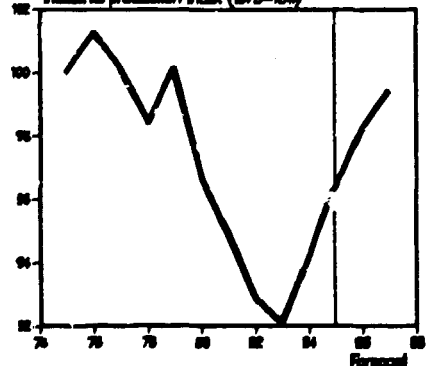
GDP per capita (1000\$)t



Manufacturing share in GDP (%)t

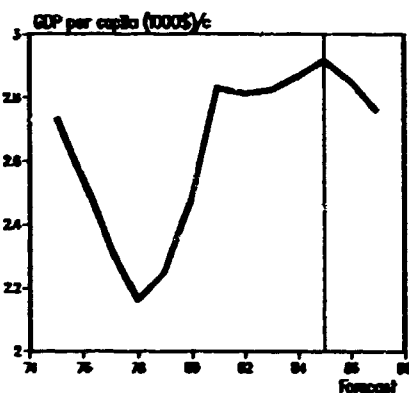


Industrial production index (1975=100)



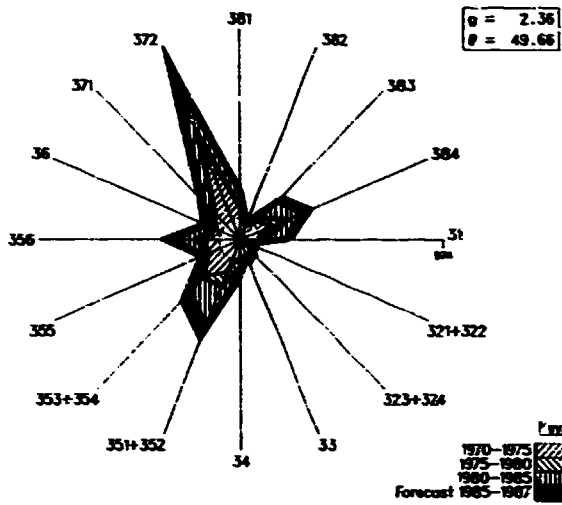
For source, footnotes and comments see "Technical notes" above.

	1975	1980	1983
GDP: /na (in million dollars)	2097 /c	2428 /c	3219 /c
Per capita (in dollars)	2737 /c	2483 /c	2824 /c
Manufacturing share /na (%)
MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
390 Other manufacturing industries

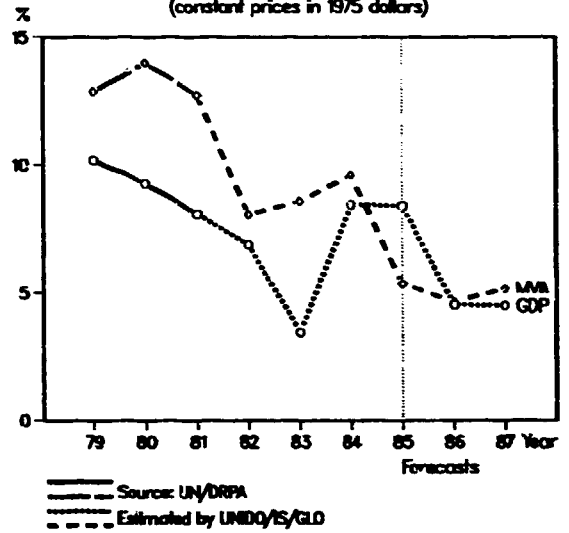


For source, footnotes and comments see "Technical notes" above.

Industrial structural change
(Index of value added: 1970=100)



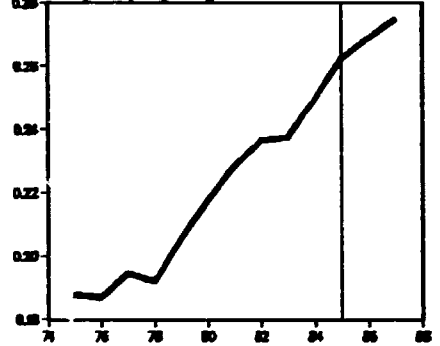
Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



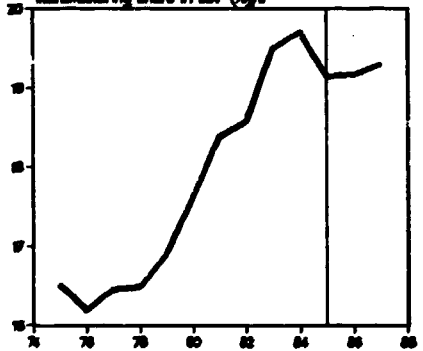
	1975	1980	1983
GDP: /na (in million dollars)	13338 /c	17982 /c	21489 /c
Per capita (in dollars)	188 /c	218 /c	237 /c
Manufacturing share /na (%)	16.5 /c	17.6 /c	19.5 /c
MANUFACTURING:			
Value added /na (in million dollars)	2203 /c	3168 /c	4190 /c
Value added (in million dollars)	957	2435	...
Industrial production index	100	94	122
Gross output (in million dollars)	2601	7071	...
Employment (in thousands)	450	454	455
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	63	66	...
wages and salaries (%)	9	7	...
Operating surplus (%)	27	27	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	5775	15564	...
Value added / worker	2126	5359	...
Average wage	542	1103	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	2.73	2.53	2.15
in percentage of θ in 1970-1975	70	65	55
growth rate / structural change	-0.73	2.29	3.01
Degree of specialization	35.4	25.2	26.6
-VALUE ADDED: (in million dollars)			
311 Food products	182	494	...
313 Beverages	13	43	...
314 Tobacco products	69	323	...
321 Textiles	288	476	...
322 wearing apparel	3	17	...
323 Leather and fur products	12	29	...
324 Footwear	2	11	...
331 wood and wood products	1	5	...
332 Furniture and fixtures	1	3	...
341 Paper and paper products	18	35	...
342 Printing and publishing	11	21	...
351 Industrial chemicals	52	131	...
352 Other chemical products	56	160	...
353 Petroleum refineries	38	167	...
354 Misc. petroleum and coal products	2	11	...
355 Rubber products	12	27	...
356 Plastic products	2	7	...
361 Pottery, china and earthenware	2	5	...
362 Glass and glass products	2	9	...
369 Other non-metal mineral products	34	134	...
371 Iron and steel	25	87	...
372 Non-ferrous metals	1	1	...
381 Metal products	16	28	...
382 Non-electrical machinery	21	43	...
383 Electrical machinery	30	86	...
384 Transport equipment	32	65	...
385 Professional and scientific equipment	5	7	...
389 Other manufacturing industries	7	10	...

For source, footnotes and comments see "Technical notes" above.

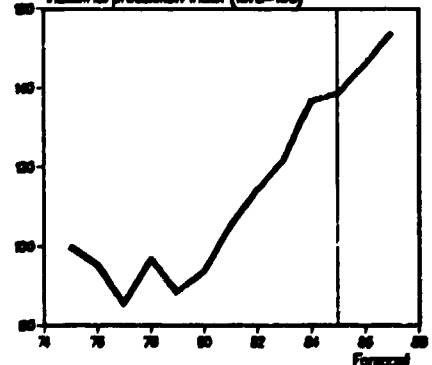
GDP per capita (1000\$)/c



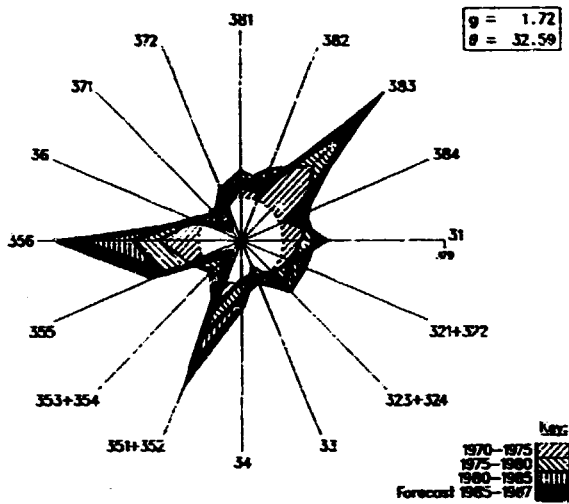
Manufacturing share in GDP (%) /c



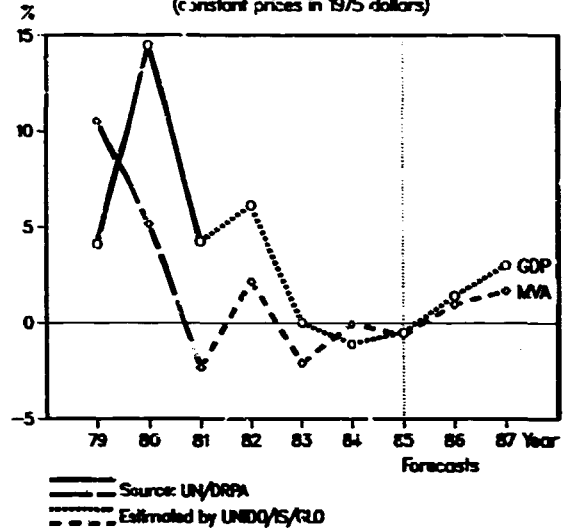
Industrial production index (1975=100)



Industrial structural change
(Index of value added: 1970=100)

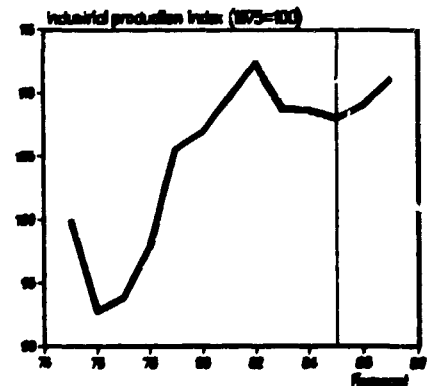
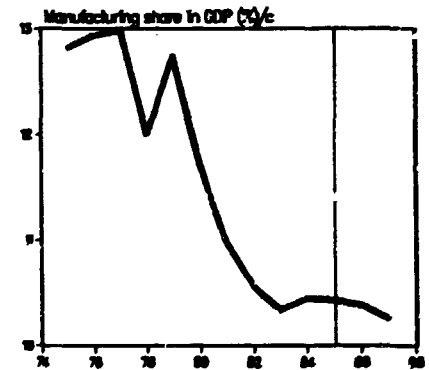
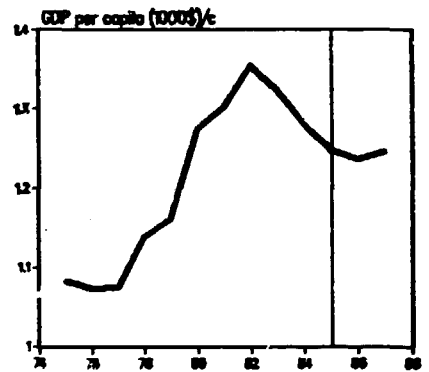


Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

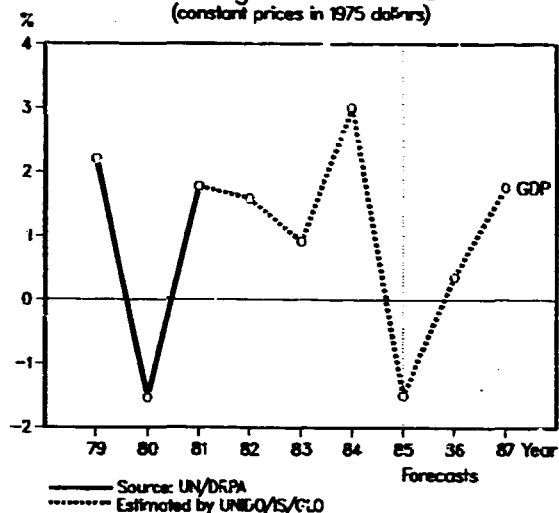


	1975	1980	1983
GDP: /na (in million dollars)	1841 /c	2498 /c	2764 /c
Per capita (in dollars)	1083 /c	1275 /c	1323 /c
Manufacturing share /na (%)	12.8 /c	11.7 /c	10.3 /c
MANUFACTURING:			
Value added /na (in million dollars)	236 /c	292 /c	286 /c
Value added (in million dollars)	283	477	...
Industrial production index	100	107	109
Gross output (in million dollars)	967	1465	...
Employment (in thousands)	27	31	35
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	71	67	...
Wages and salaries (%)	8	8	...
Operating surplus (%)	21	24	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	35995	46497	...
Value added / worker	10546	15141	...
Average wage	2958	3805	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	6.00	3.32	4.30
in percentage of θ in 1970-1975	134	74	96
Growth rate / structural change	0.27	0.38	-0.74
Degree of specialization	30.1	25.6	26.6
-VALUE ADDED: (in million dollars)			
311 Food products	116	155	...
313 Beverages	21	52	...
314 Tobacco products	15	26	...
321 Textiles	3	4	...
322 Wearing apparel	15	31	...
323 Leather and fur products	1	4	...
324 Footwear	4	7	...
331 Wood and wood products	4	8	...
332 Furniture and fixtures	7	8	...
341 Paper and paper products	7	20	...
342 Printing and publishing	13	22	...
351 Industrial chemicals	2	4	...
352 Other chemical products	13	26	...
353 Petroleum refineries	17	27	...
354 Misc. petroleum and coal products	-	-	...
355 Rubber products	1	2	...
356 Plastic products	4	12	...
361 Pottery, china and earthenware	-	-	...
362 Glass and glass products	1	1	...
369 Other non-metal mineral products	16	31	...
371 Iron and steel	3	5	...
372 Non-ferrous metals	1	2	...
381 Metal products	13	19	...
382 Non-electrical machinery	1	1	...
383 Electrical machinery	2	3	...
384 Transport equipment	2	4	...
385 Professional and scientific equipment	1	1	...
389 Other manufacturing industries	1	2	...

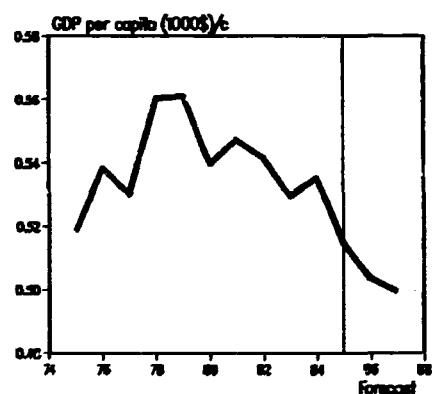
For source, footnotes and comments see "Technical notes" above.



Annual growth rate of GDP
(constant prices in 1975 dollars)

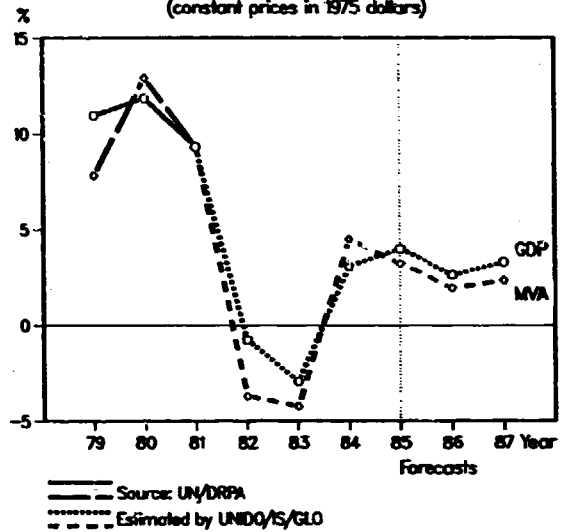


	1975	1980	1983
GDP: /na (in million dollars)	1400 /c	1619 /c	1689 /c
Per capita (in dollars)	518 /c	540 /c	529 /c
Manufacturing share /na (%)	...	...	...
MANUFACTURING:			
Value added /na (in million dollars)	...	...	...
Value added (in million dollars)	108	280	...
Industrial production index	...	...	...
Gross output (in million dollars)	245	689	...
Employment (in thousands)	16	20	21
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	56	59	...
Wages and salaries (%)	18	15	...
Operating surplus (%)	26	25	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	15051	34910	...
Value added / worker	6656	14205	...
Average wage	2677	5307	...
-STRUCTURAL INDICES:			
Structural change B (in degrees)	...	...	...
in percentage of B in 1970-1975	...	...	...
Growth rate / structural change	...	...	...
Degree of specialization	...	...	...
-VALUE ADDED: (in million dollars)			
311 Food products	13	72	...
313 Beverages	13	32	...
314 Tobacco products	5	9	...
321 Textiles	-	-	...
322 Wearing apparel	1	2	...
323 Leather and fur products	-	-	...
324 Footwear	-	-	...
331 Wood and wood products	15	53	...
332 Furniture and fixtures	-	7	...
341 Paper and paper products	1	2	...
342 Printing and publishing	3	8	...
351 Industrial chemicals	3	3	...
352 Other chemical products	5	6	...
353 Petroleum refineries	-	-	...
354 Misc. petroleum and coal products	-	-	...
355 Rubber products	-	-	...
356 Plastic products	-	1	...
361 Pottery, china and earthenware	-	-	...
362 Glass and glass products	-	11	...
369 Other non-metal mineral products	1	-	...
371 Iron and steel	-	-	...
372 Non-ferrous metals	-	-	...
381 Metal products	7	25	...
382 Non-electrical machinery	9	26	...
383 Electrical machinery	3	1	...
384 Transport equipment	23	15	...
385 Professional and scientific equipment	5	4	...
389 Other manufacturing industries	-	1	...



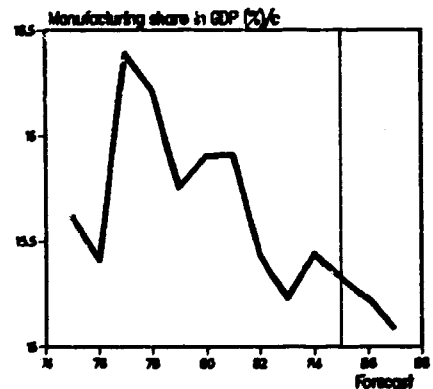
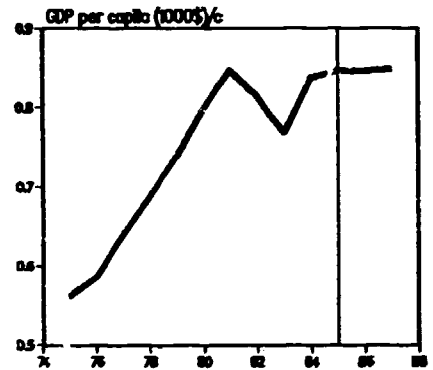
For source, footnotes and comments see "Technical notes" above.

Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

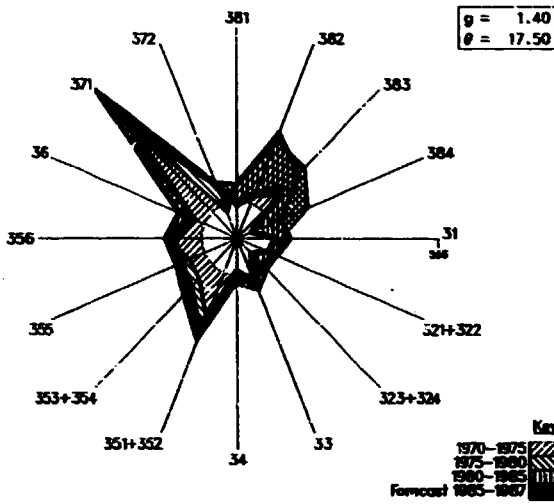


	1975	1980	1983
GDP: /na (in million dollars)	1512 /c	2533 /c	2668 /c
Per capita (in dollars)	562 /c	799 /c	768 /c
Manufacturing share /na (%)	15.6 /c	15.9 /c	15.2 /c
MANUFACTURING:			
Value added /na (in million dollars)	236 /c	403 /c	406 /c
Value added (in million dollars)	223	666	...
Industrial production index	...	...	...
Gross output (in million dollars)	...	...	...
Employment (in thousands)	...	...	...
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	...	...	...
Wages and salaries (%)	...	...	...
Operating surplus (%)	...	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	...	...	...
Value added / worker	...	...	...
Average wage	...	...	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	...	...	...
in percentage of θ in 1970-1975	...	...	...
Growth rate / structural change	...	...	...
Degree of specialization	...	...	...
-VALUE ADDED: (in million dollars)			
311 Food products	82	196	...
313 Beverages	14	50	...
314 Tobacco products	8	6	...
321 Textiles	15	51	...
322 Wearing apparel	2	3	...
323 Leather and fur products	10	8	...
324 Footwear	6	20	...
331 wood and wood products	26	110	...
332 Furniture and fixtures	2	7	...
341 Paper and paper products	-	1	...
342 Printing and publishing	4	27	...
351 Industrial chemicals	2	5	...
352 Other chemical products	6	12	...
353 Petroleum refineries	26 a	109 a	...
354 Misc. petroleum and coal products	- a	- a	...
355 Rubber products	-	-	...
356 Plastic products	1	7	...
361 Pottery, china and earthenware	-	-	...
362 Glass and glass products	-	1	...
369 Other non-metal mineral products	10	30	...
371 Iron and steel	-	-	...
372 Non-ferrous metals	-	1	...
381 Metal products	6	10	...
382 Non-electrical machinery	-	1	...
383 Electrical machinery	-	-	...
384 Transport equipment	2	6	...
385 Professional and scientific equipment	-	1	...
390 Other manufacturing industries	1	2	...

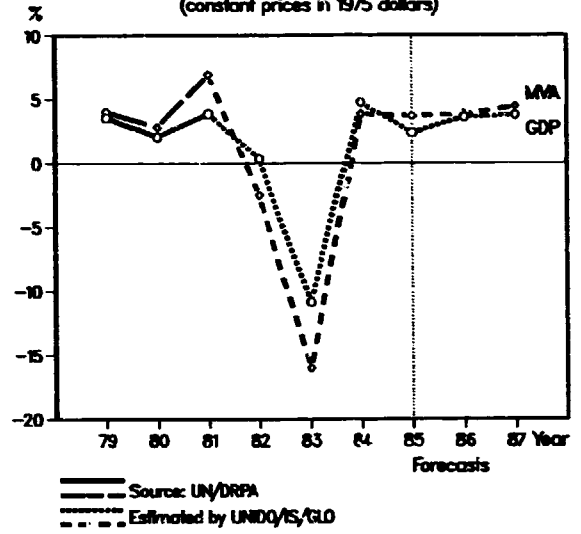
For source, footnotes and comments see "Technical notes" above.



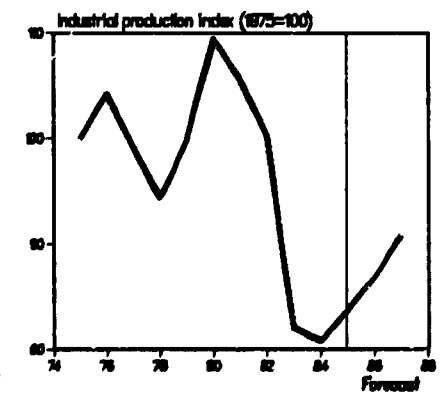
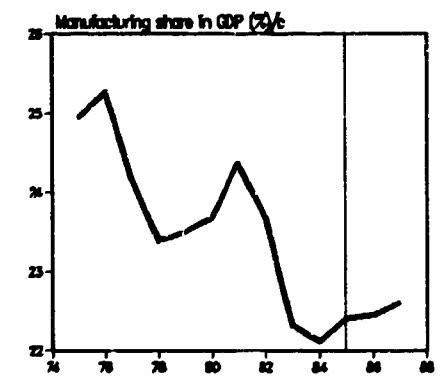
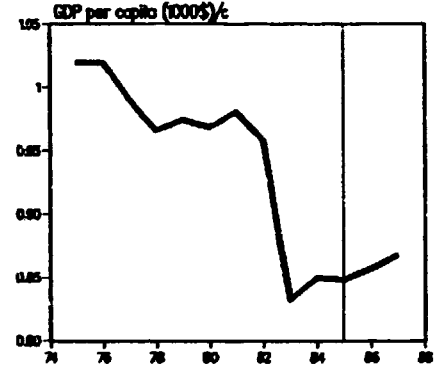
Industrial structural change
(Index of value added: 1970=100)



Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

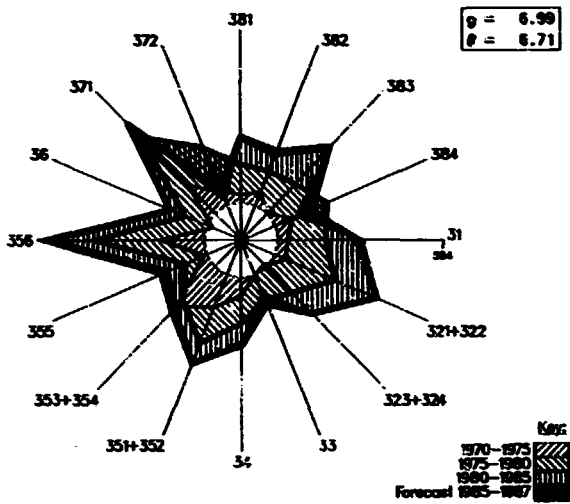


	1975	1980	1983
GDP: /na (in million dollars)	15453 /c	16760 /c	15570 /c
Per capita (in dollars)	1019 /c	969 /c	832 /c
Manufacturing share /na (%)	24.9 /c	23.7 /c	22.3 /c
MANUFACTURING:			
Value added /na (in million dollars)	3855 /c	3968 /c	3475 /c
Value added (in million dollars)	3935	5247	...
Industrial production index	100	109	82
Gross output (in million dollars)	8630	12764	...
Employment (in thousands)	270	...	...
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	...	...	...
Wages and salaries (%)	...	...	...
Operating surplus (%)	...	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	...	...	...
Value added / worker	...	...	...
Average wage	...	...	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	4.94	7.48	9.03
in percentage of θ in 1970-1975	74	111	135
Growth rate / structural change	1.31	1.30	-2.01
Degree of specialization	11.9	14.5	15.3
-VALUE ADDED: (in million dollars)			
311 Food products	611	706	...
313 Beverages	333	492	...
314 Tobacco products	77	96	...
321 Textiles	390	529	...
322 Wearing apparel	95	50	...
323 Leather and fur products	29	35	...
324 Footwear	56	41	...
331 Wood and wood products	48	82	...
332 Furniture and fixtures	46	41	...
341 Paper and paper products	98	127	...
342 Printing and publishing	86	83	...
351 Industrial chemicals	141	184	...
352 Other chemical products	228	280	...
353 Petroleum refineries	94	212	...
354 Misc. petroleum and coal products	2	3	...
355 Rubber products	53	58	...
356 Plastic products	99	91	...
361 Pottery, china and earthenware	16	10	...
362 Glass and glass products	37	48	...
369 Other non-metal mineral products	100	112	...
371 Iron and steel	93	185	...
372 Non-ferrous metals	148	641	...
381 Metal products	152	164	...
382 Non-electrical machinery	130	142	...
383 Electrical machinery	168	165	...
384 Transport equipment	178	279	...
385 Professional and scientific equipment	12	13	...
389 Other manufacturing industries	427	377	...

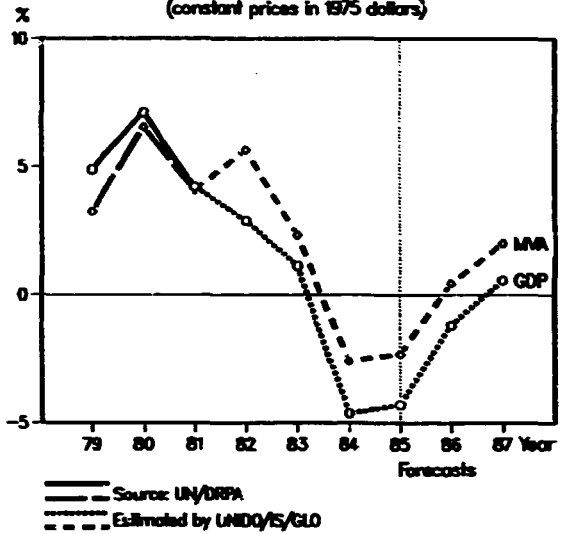


For source, footnotes and comments see "Technical notes" above.

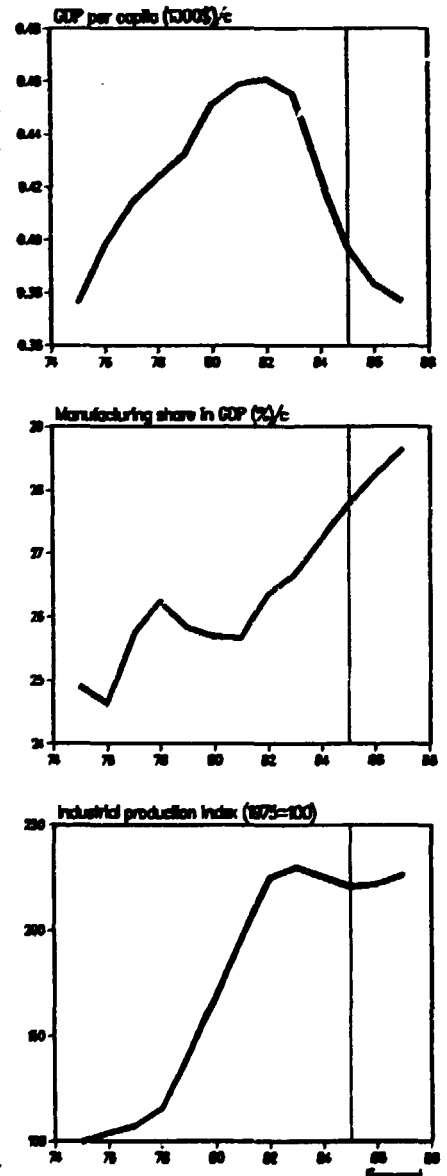
Industrial structural change
(Index of value added: 1970=100)



Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

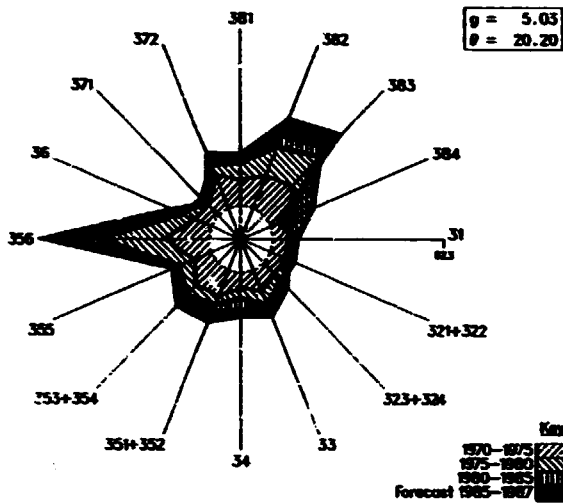


	1975	1980	1983
GDP: /na (in million dollars)	15827 /c	21802 /c	23646 /c
Per capita (in dollars)	376 /c	451 /c	455 /c
Manufacturing share /na (%)	24.9 /c	25.7 /c	26.7 /c
MANUFACTURING:			
Value added /na (in million dollars)	3942 /c	5601 /c	6304 /c
Value added (in million dollars)	2634	5449	...
Industrial production index	100	169	230
Gross output (in million dollars)	7002	18293	...
EMPLOYMENT (in thousands)	505	1053	1343
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	62	70	...
Wages and salaries (%)	6	8	...
Operating surplus (%)	32	22	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	13870	17368	...
Value added / worker	5217	5174	...
Average wage	773	1305	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	9.48	1.96	1.01
in percentage of θ in 1970-1975	145	30	16
Growth rate / structural change	0.38	10.37	7.22
Degree of specialization	21.8	22.2	24.0
-VALUE ADDED: (in million dollars)			
311 Food products	657	1063	...
313 Beverages	399	325	...
314 Tobacco products	188	357	...
321 Textiles	186	393	...
322 Wearing apparel	25	255	...
323 Leather and fur products	4	9	...
324 Footwear	3	...	...
331 Wood and wood products	97	259	...
332 Furniture and fixtures	12	62	...
341 Paper and paper products	67	190	...
342 Printing and publishing	22	67	...
351 Industrial chemicals	67	305	...
352 Other chemical products	166	342	...
353 Petroleum refineries	175	319	...
354 Misc. petroleum and coal products	2	2	...
355 Rubber products	43	145	...
356 Plastic products	36	77	...
361 Pottery, china and earthenware	11	27	...
362 Glass and glass products	16	52	...
369 Other non-metal mineral products	68	164	...
371 Iron and steel	79	182	...
372 Non-ferrous metals	10	49	...
381 Metal products	72	130	...
382 Non-electrical machinery	50	80	...
383 Electrical machinery	74	228	...
384 Transport equipment	95	319	...
385 Professional and scientific equipment	2	13	...
389 Other manufacturing industries	10	40	...

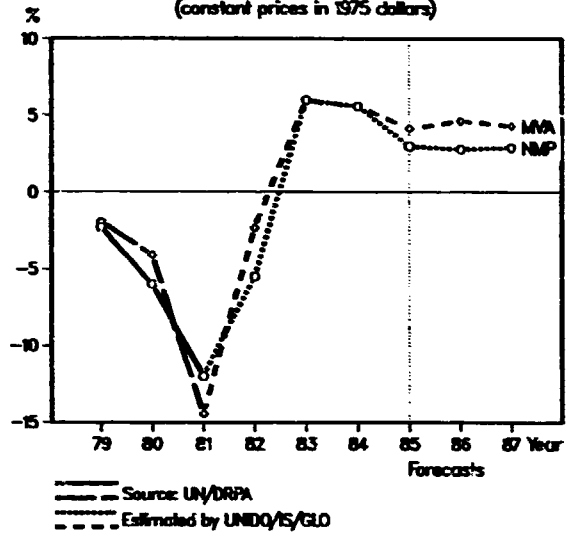


For source, footnotes and comments see "Technical notes" above.

Industrial structural change
(Index of value added: 1970=100)

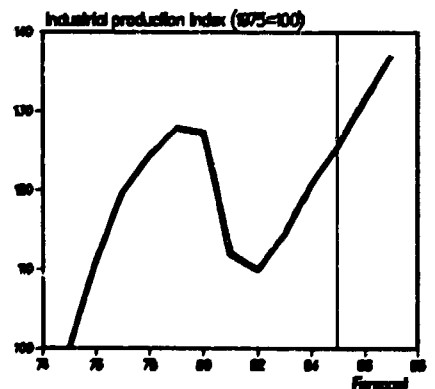
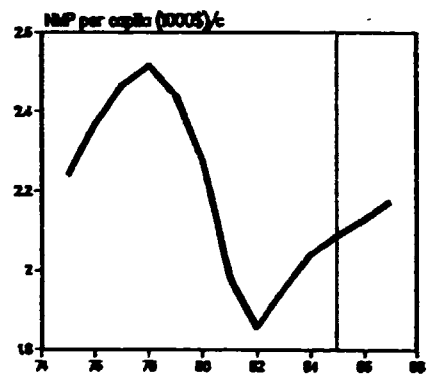


Annual growth rates of NMP and MVA
(constant prices in 1975 dollars)

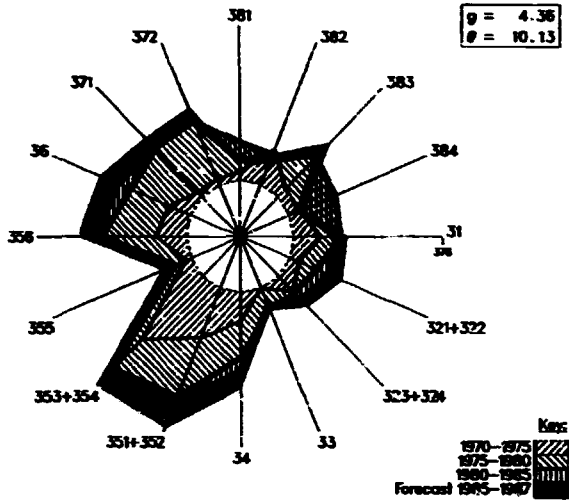


	1975	1980	1983
NMP: /na (in million dollars)	76225 /c	80910 /c	71327 /c
Per capita (in dollars)	2241 /c	2274 /c	1950 /c
Manufacturing share /na (%)	50.4 /c	54.1 /c	54.4 /c
MANUFACTURING:			
Value added /na (in million dollars)	38450 /c	43782 /c	38768 /c
Value added (in million dollars)	37063	30410	27402
Industrial production index	100	127	114
Gross output (in million dollars)	...	...	...
Employment (in thousands)	4041	4126	3765
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	...	...	...
Wages and salaries (%)	...	...	...
Operating surplus (%)	...	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	...	...	...
Value added / worker	...	...	...
Average wage	...	...	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	1.64	1.11	4.54
in percentage of θ in 1970-1975	72	49	201
Growth rate / structural change	7.70	-0.41	0.87
Degree of specialization	13.2	13.4	12.2
-VALUE ADDED: (in million dollars)			
311 Food products	919	-1124	989
313 Beverages	4418	4078	4851
314 Tobacco products	893	846	71
321 Textiles	4975	3723	2265
322 Wearing apparel	989	762	891
323 Leather and fur products	186	163	22
324 Footwear	587	536	43
331 Wood and wood products	808	563	471
332 Furniture and fixtures	622	654	477
341 Paper and paper products	402	298	248
342 Printing and publishing	221	205	182
351 Industrial chemicals	1832	1114	822
352 Other chemical products	1245	1280	641
353 Petroleum refineries	2495	1410	1680
354 Misc. petroleum and coal products	186	72	88
355 Rubber products	552	422	312
356 Plastic products	291	479	322
361 Pottery, china and earthenware	110	130	144
362 Glass and glass products	331	358	335
369 Other non-metal mineral products	768	446	775
371 Iron and steel	2164	1157	1103
372 Non-ferrous metals	477	801	266
381 Metal products	1466	1789	1376
382 Non-electrical machinery	2730	4346	3354
383 Electrical machinery	2199	2075	1789
384 Transport equipment	3594	3244	2499
385 Professional and scientific equipment	402	325	236
389 Other manufacturing industries	402	316	439

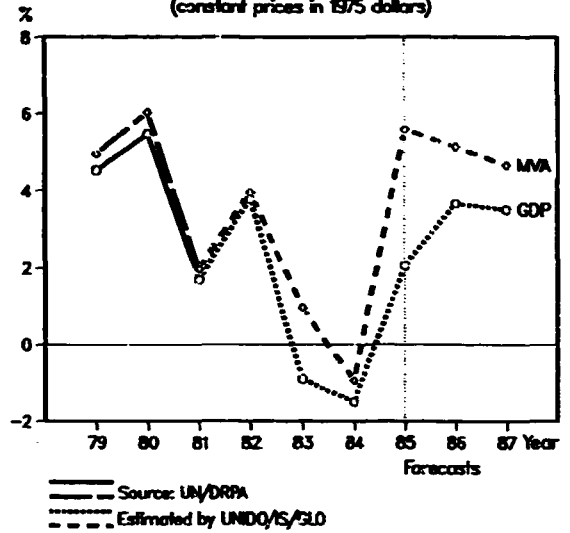
For source, footnotes and comments see "Technical notes" above.



Industrial structural change
(Index of value added: 1970=100)



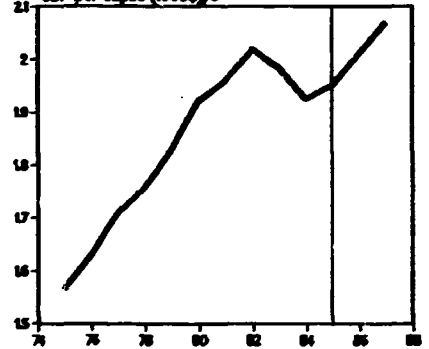
Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



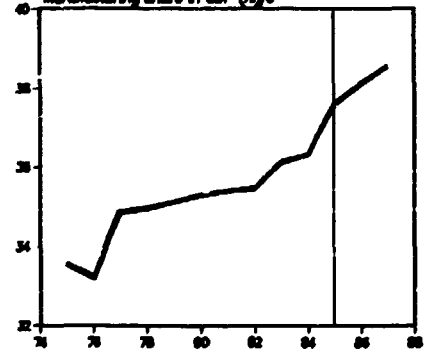
	1975	1980	1983
GDP: /na (in million dollars)	1475 /c	18989 /c	19859 /c
Per capita (in dollars)	1565 /c	1922 /c	1984 /c
Manufacturing share /na (%)	33.6 /c	35.3 /c	36.1 /c
MANUFACTURING:			
Value added /na (in million dollars)	4952 /c	6704 /c	7174 /c
Value added (in million dollars)	2971	5606	...
Industrial production index	100	138	143
Gross output (in million dollars)	8373	17945	...
Employment (in thousands)	604	680	723
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	65	69	...
Wages and salaries (%)	22	13	...
Operating surplus (%)	14	18	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	13872	26375	...
Value added / worker	4923	8239	...
Average wage	3003	3556	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	9.62	2.51	3.73
in percentage of θ in 1970-1975	213	55	82
Growth rate / structural change	-0.78	3.57	0.08
Degree of specialization	16.3	15.1	14.8
-VALUE ADDED: (in million dollars)			
311 Food products	362	545	...
313 Beverages	96	136	...
314 Tobacco products	47	64	...
321 Textiles	475	906	...
322 Wearing apparel	84	186	...
323 Leather and fur products	19	41	...
324 Footwear	50	86	...
331 Wood and wood products	140	325	...
332 Furniture and fixtures	53	106	...
341 Paper and paper products	146	274	...
342 Printing and publishing	113	180	...
351 Industrial chemicals	118	147	...
352 Other chemical products	148	224	...
353 Petroleum refineries	25	219	...
354 Misc. petroleum and coal products	-	-	...
355 Rubber products	41	58	...
356 Plastic products	65	129	...
361 Pottery, china and earthenware	42	80	...
362 Glass and glass products	49	87	...
369 Other non-metal mineral products	149	295	...
371 Iron and steel	66	207	...
372 Non-ferrous metals	18	33	...
381 Metal products	181	324	...
382 Non-electrical machinery	84	170	...
383 Electrical machinery	195	319	...
384 Transport equipment	223	429	...
385 Professional and scientific equipment	7	15	...
390 Other manufacturing industries	15	26	...

For source, footnotes and comments see "Technical notes" above.

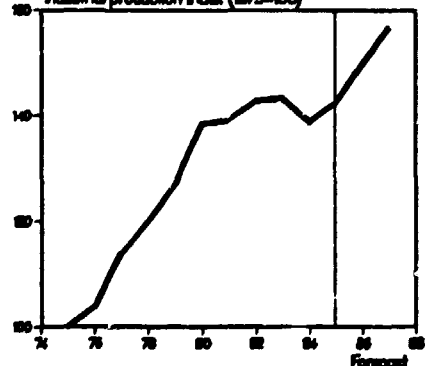
GDP per capita (000\$)/c



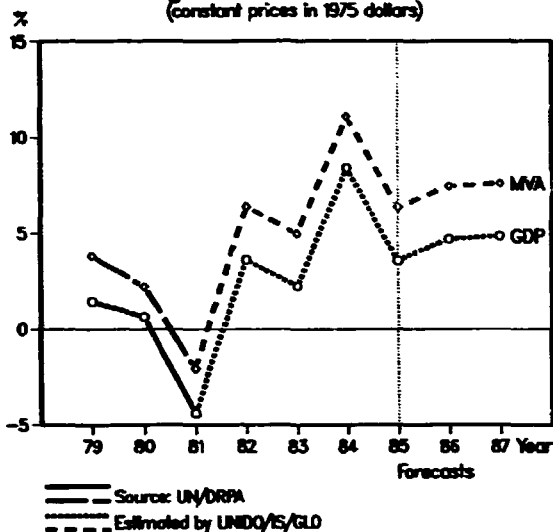
Manufacturing share in GDP (%)



Industrial production index (1975=100)

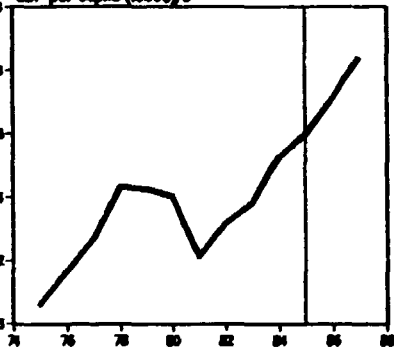


Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

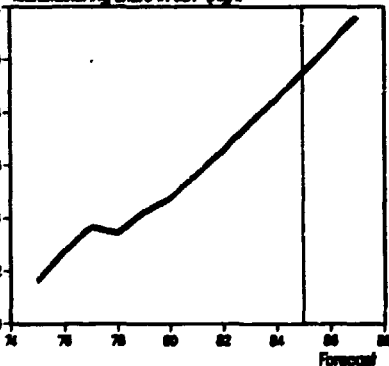


	1975	1980	1983
GDP: /na (in million dollars)	8964 /c	10923 /c	11056 /c
Per capita (in dollars)	3059 /c	3403 /c	3381 /c
Manufacturing share /na (%)	31.6 /c	34.8 /c	37.6 /c
MANUFACTURING			
Value added /na (in million dollars)	2834 /c	3799 /c	4154 /c
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)	137	155	143
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
390 Other manufacturing industries

GDP per capita (000\$)/c

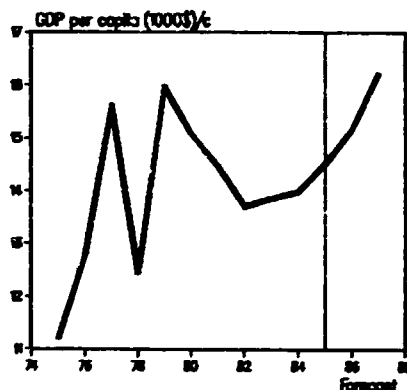


Manufacturing share in GDP (%)



For source, footnotes and comments see "Technical notes" above.

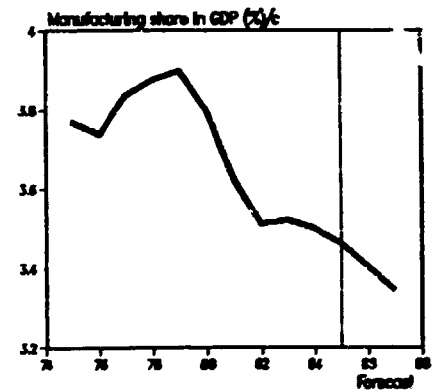
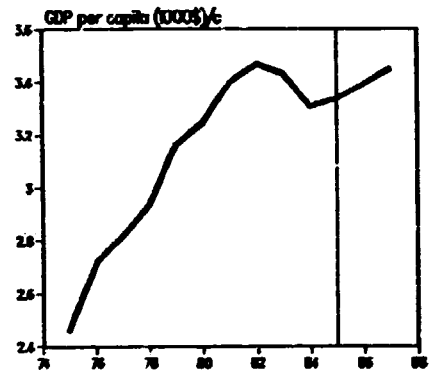
	1975	1980	1983
GDP: /na (in million dollars)	1914 /c	3710 /c	3893 /c
Per capita (in dollars)	11193 /c	15081 /c	13854 /c
Manufacturing share /na (%)
MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change B (in degrees)
in percentage of B in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
312 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
389 Other manufacturing industries

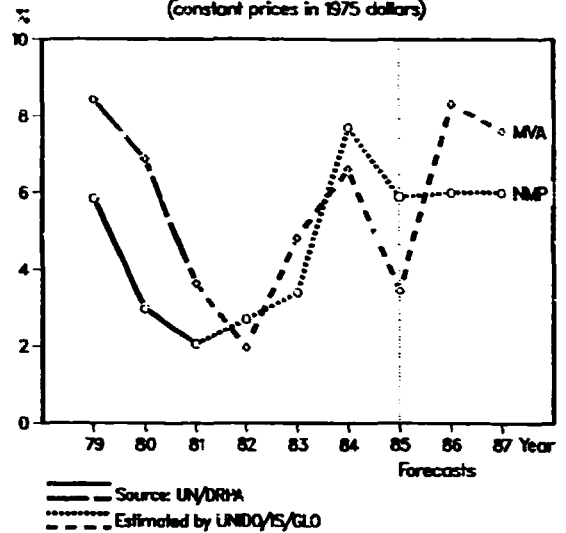


For source, footnotes and comments see "Technical notes" above.

	1975	1980	1983
GDP: /na (in million dollars)	1169 /c	1595 /c	1805 /c
Per capita (in dollars)	2456 /c	3248 /c	3432 /c
Manufacturing share /na (%)	3.8 /c	3.8 /c	3.5 /c
MANUFACTURING:			
Value added /na (in million dollars)	44 /c	61 /c	64 /c
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
390 Other manufacturing industries

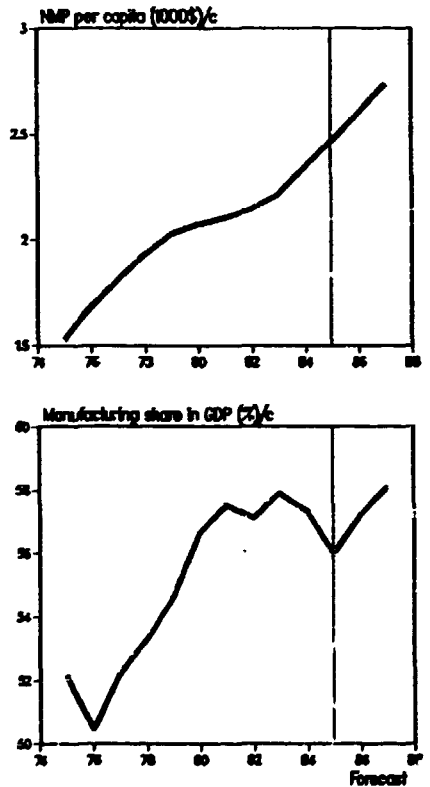
For source, footnotes and comments see "Technical notes" above.



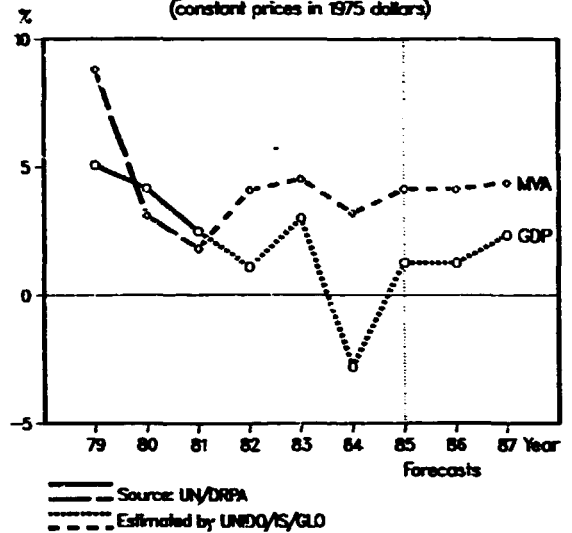
Annual growth rates of NMP and MVA
(constant prices in 1975 dollars)

	1975	1980	1983
NMP: /na (in million dollars)	32523 /c	46027 /c	49887 /c
Per capita (in dollars)	1531 /c	2071 /c	2212 /c
Manufacturing share /na (%)	52.2 /c	56.7 /c	57.9 /c
MANUFACTURING:			
Value added /na (in million dollars)	16968 /c	26077 /c	28887 /c
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change B (in degrees)
in percentage of B in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
389 Other manufacturing industries

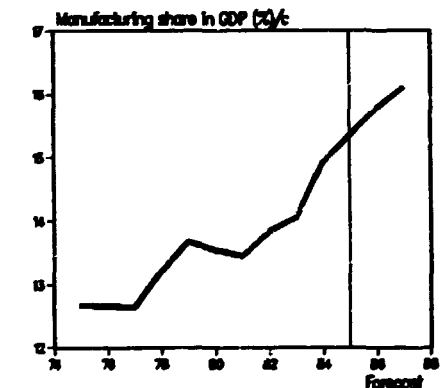
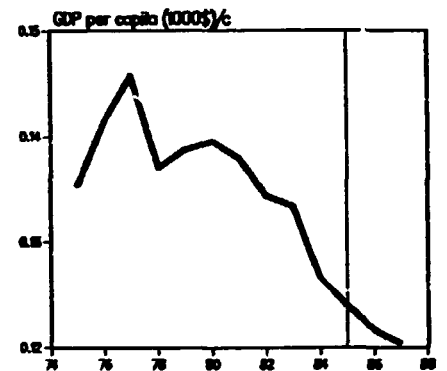
For source, footnotes and comments see "Technical notes" above.



Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

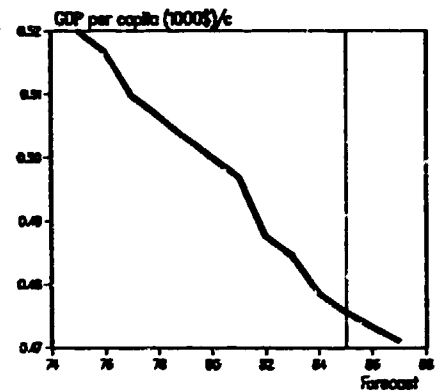


	1975	1980	1983
GDP: /na (in million dollars)	568 /c	720 /c	768 /c
Per capita (in dollars)	135 /c	139 /c	133 /c
Manufacturing share /na (%)	12.7 /c	13.5 /c	14.1 /c
MANUFACTURING:			
Value added /na (in million dollars)	72 /c	97 /c	108 /c
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)	3	4	4
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in percent)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
321 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
33: Wood and wood products
332 Furniture and fixtures
241 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
389 Other manufacturing industries



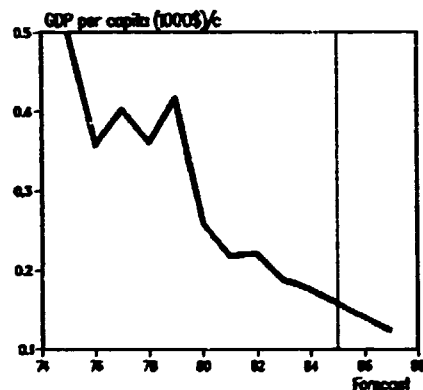
For source, footnotes and comments see "Technical notes" above.

	1975	1980	1983
GDP: /na (in million dollars)	78 /c	78 /c	78 /c
Per capita (in dollars)	520 /c	500 /c	484 /c
Manufacturing share /na (%)
MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change B (in degrees)
in percentage of B in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
389 Other manufacturing industries



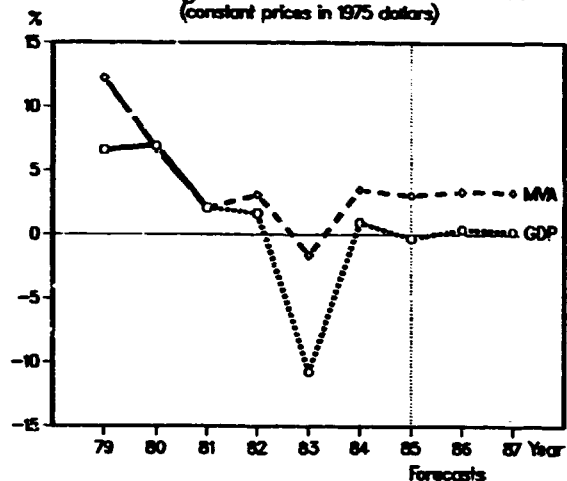
For source, footnotes and comments see "Technical notes" above.

	1975	1980	1983
GDP: /na (in million dollars)	40 /c	22 /c	17 /c
Per capita (in dollars)	500 /c	259 /c	188 /c
Manufacturing share /na (%)
MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change B (in degrees)
in percentage of B in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
390 Other manufacturing industries



For so. ca, footnotes and comments see "Technical notes" above.

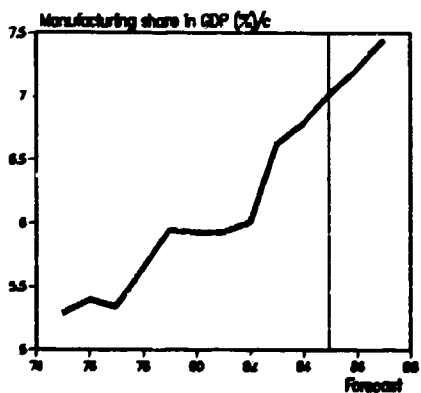
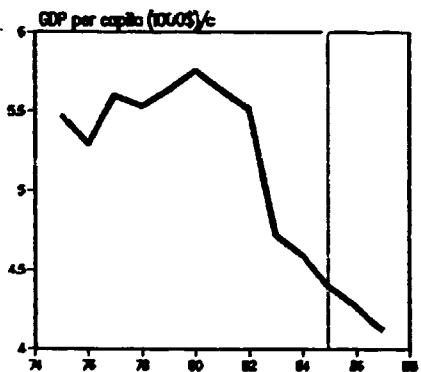
Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



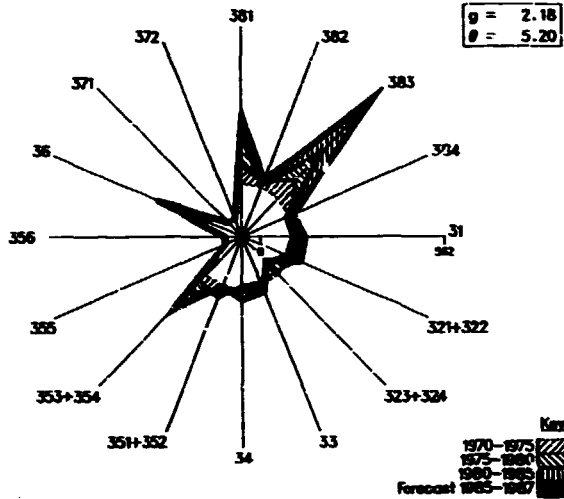
Source: UN/DRPA
Estimated by UNDO/S/GLD

	1975	1980	1983
GDP: /na (in million dollars)	39686 /c	53122 /c	49208 /c
Per capita (in dollars)	5474 /c	5755 /c	4722 /c
Manufacturing share /na (%)	5.3 /c	5.9 /c	6.6 /c
MANUFACTURING:			
Value added /na (in million dollars)	2100 /c	3149 /c	3260 /c
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output;			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change B (in degrees)
in percentage of B in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
389 Other manufacturing industries

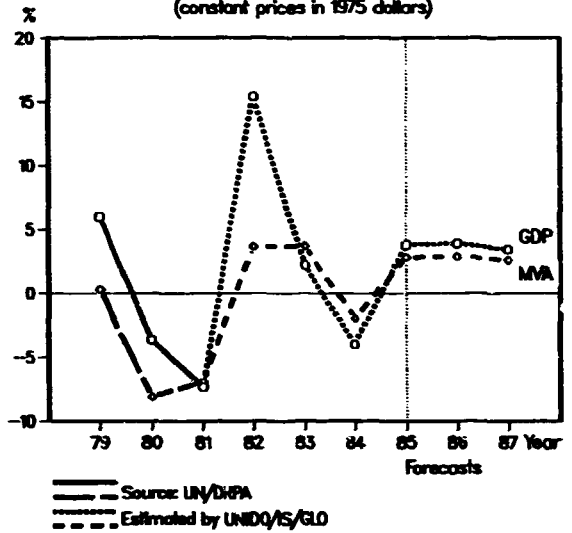
For source, footnotes and comments see "Technical notes" above.



Industrial structural change
(Index of value added: 1970=100)

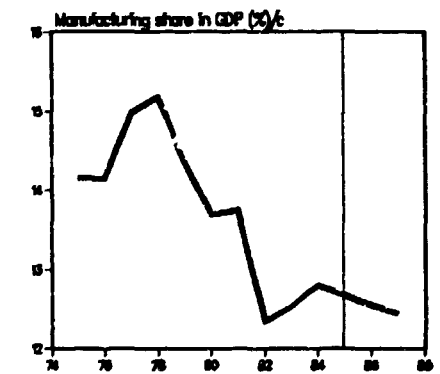
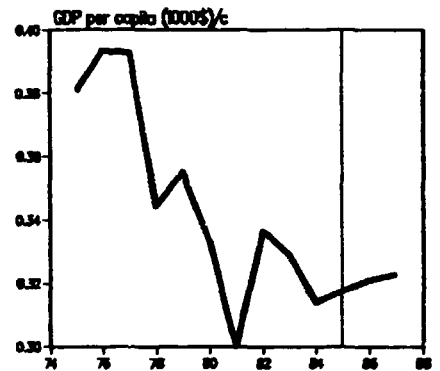


Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

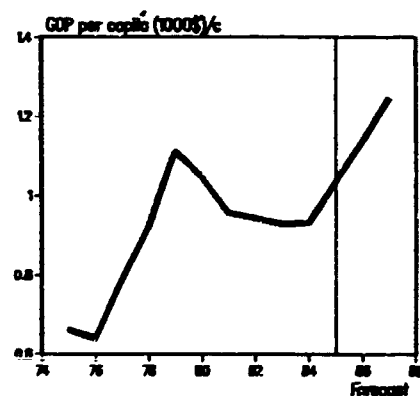


	1975	1980	1983
GDP: /na (in million dollars)	1896 /c	1900 /c	2077 /c
Per capita (in dollars)	381 /c	333 /c	329 /c
Manufacturing share /na (%)	14.2 /c	13.7 /c	12.5 /c
MANUFACTURING:			
Value added /na (in million dollars) /	268 /c	260 /c	260 /c
Value added (in million dollars)	235	257	...
Industrial production index	100	88	113
Gross output (in million dollars)	819	1063	...
Employment (in thousands)	24	32	38
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	71	76	...
Wages and salaries (%)	9	10	...
Operating surplus (%)	20	14	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	34722	33576	...
Value added / worker	9956	8107	...
Average wage	3130	3494	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	5.96	7.64	2.46
in percentage of θ in 1970-1975	107	128	44
Growth rate / structural change	1.77	-3.16	2.44
Degree of specialization	30.4	26.5	32.4
-VALUE ADDED: (in million dollars)			
311 Food products	89	105	...
313 Beverages	9	11	...
314 Tobacco products	14	7	...
321 Textiles	37	33	...
322 Wearing apparel	7	10	...
323 Leather and fur products	3	5	...
324 Footwear	1	2	...
331 Wood and wood products	4	2	...
332 Furniture and fixtures	5	2	...
341 Paper and paper products	3	4	...
342 Printing and publishing	5	6	...
351 Industrial chemicals	12	15	...
352 Other chemical products	4	5	...
353 Petroleum refineries	14	18	...
354 Misc. petroleum and coal products	-	-	...
355 Rubber products	-	-	...
356 Plastic products	-	-	...
361 Pottery, china and earthenware	-	-	...
362 Glass and glass products	-	-	...
369 Other non-metal mineral products	8	12	...
371 Iron and steel	-	-	...
372 Non-ferrous metals	-	-	...
381 Metal products	10	10	...
382 Non-electrical machinery	3	3	...
383 Electrical machinery	1	1	...
384 Transport equipment	5	5	...
385 Professional and scientific equipment	-	-	...
386 Other manufacturing industries	-	-	...

For source, footnotes and comments see "Technical notes" above.

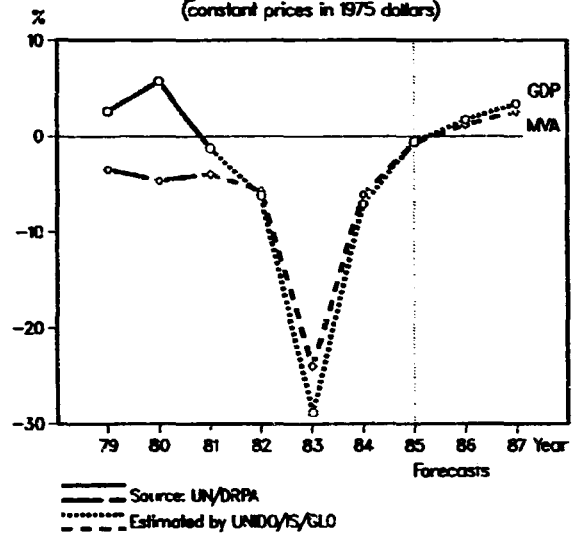


	1975	1980	1983
GDP: /na (in million dollars)	39 /c	66 /c	58 /c
Per capita (in dollars)	661 /c	1048 /c	928 /c
Manufacturing share /na (%)
MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)	...	10	14
Industrial production index
Gross output (in million dollars)	...	19	25
Employment (in thousands)	1	1	1
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	...	47	45
Wages and salaries (%)	...	15	22
Operating surplus (%)	...	37	33
-PRODUCTIVITY: (in dollars)			
Gross output / worker	...	21052	16964
Value added / worker	...	11054	9281
Average wage	...	3206	3763
-STRUCTURAL INDICES:			
Structural change B (in degrees)
in percentage of B in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products	...	7 a	11 a
313 Beverages	...	- a	- a
314 Tobacco products	...	- a	- a
321 Textiles	...	- b	- b
322 Wearing apparel	...	- b	- b
323 Leather and fur products	...	- b	- b
324 Footwear	...	- b	- b
331 Wood and wood products	...	1 c	1 c
332 Furniture and fixtures	...	- c	- c
341 Paper and paper products	...	1 d	1 d
342 Printing and publishing	...	- d	- d
351 Industrial chemicals	...	- e	- e
352 Other chemical products	...	- e	- e
353 Petroleum refineries	...	- e	- e
354 Misc. petroleum and coal products	...	- e	- e
355 Rubber products	...	- e	- e
356 Plastic products	...	- e	- e
361 Pottery, china and earthenware	...	1 f	- f
362 Glass and glass products	...	- f	- f
369 Other non-metal mineral products	...	- f	- f
371 Iron and steel	...	-	-
372 Non-ferrous metals	...	-	-
381 Metal products	...	-	-
382 Non-electrical machinery	...	-	-
383 Electrical machinery	...	-	-
384 Transport equipment	...	-	-
385 Professional and scientific equipment	...	-	-
389 Other manufacturing industries	...	-	-

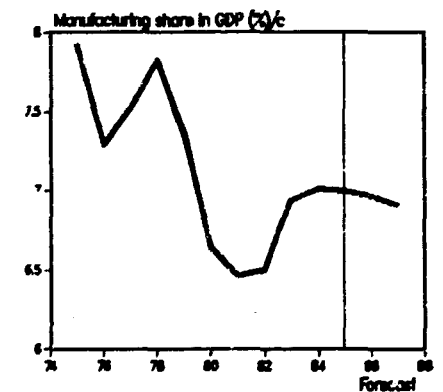
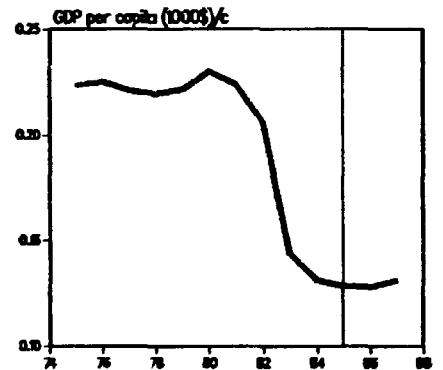


For source, footnotes and comments see "Technical notes" above.

Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

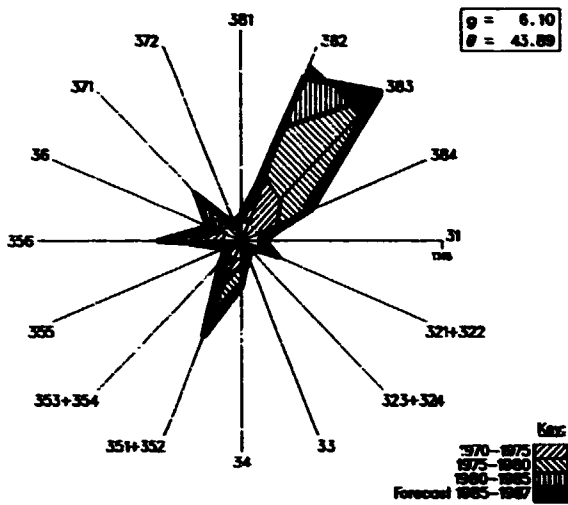


	1975	1980	1983
GDP: /na (in million dollars)	682 /c	759 /c	500 /c
Per capita (in dollars)	224 /c	230 /c	144 /c
Manufacturing share /na (%)	7.9 /c	6.6 /c	6.9 /c
MANUFACTURING:			
Value added /na (in million dollars)	54 /c	50 /c	35 /c
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
389 Other manufacturing industries

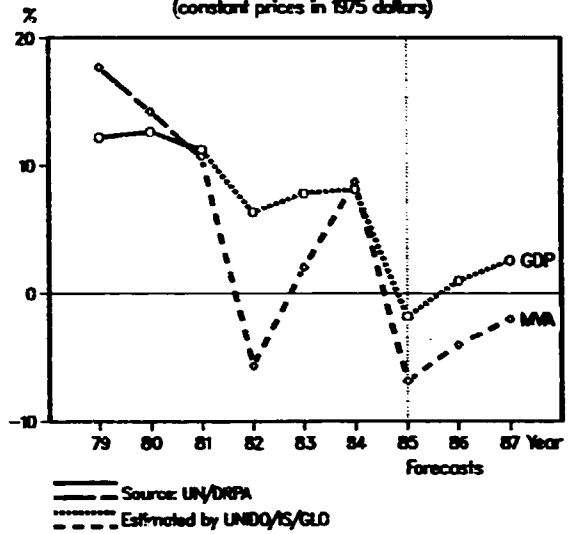


For source, footnotes and comments see "Technical notes" above.

Industrial structural change
(Index of value added: 1970=100)

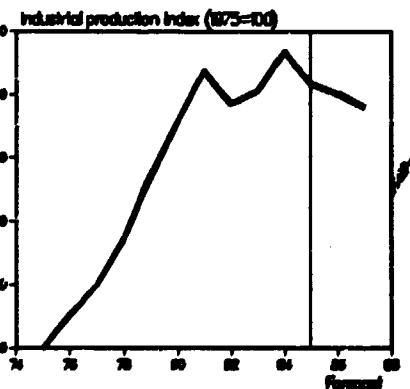
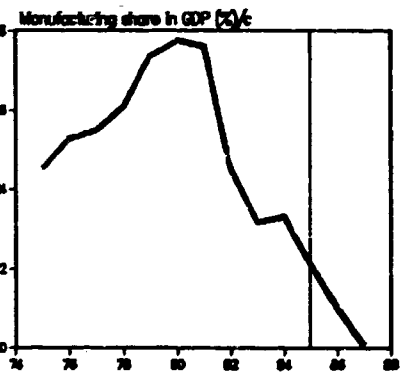
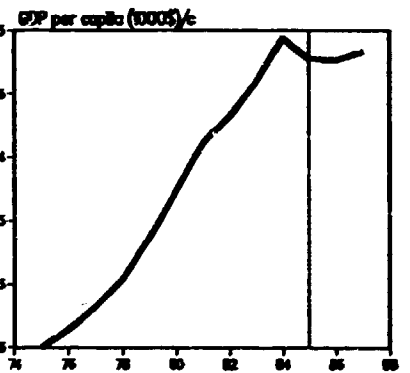


Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

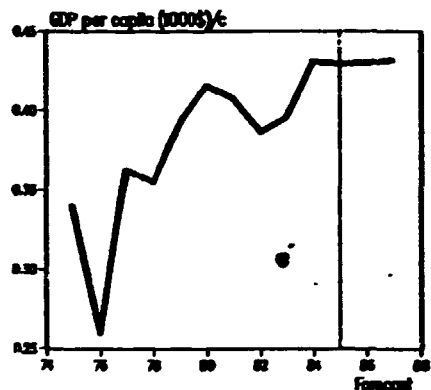


	1975	1980	1983
GDP: /na (in million dollars)	5650 /c	9023 /c	11510 /c
Per capita (in dollars)	2500 /c	3738 /c	4600 /c
Manufacturing share /na (%)	24.5 /c	27.8 /c	23.2 /c
MANUFACTURING:			
Value added /na (in million dollars)	1386 /c	2504 /c	2668 /c
Value added (in million dollars)	1478	4060	4736
Industrial production index	100	172	181
Gross output (in million dollars)	5625	15441	18012
Employment (in thousands)	198	292	277
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	74	74	74
Wages and salaries (%)	9	8	10
Operating surplus (%)	17	18	17
-PRODUCTIVITY: (in dollars)			
Gross output / worker	28376	52842	64941
Value added / worker	7455	13893	17075
Average wage	2582	4125	6300
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	11.46	5.03	5.06
in percentage of θ in 1970-1975	152	77	67
Growth rate / structural change	-0.15	1.95	0.44
Degree of specialization	14.9	21.0	23.6
-VALUE ADDED: (in million dollars)			
311 Food products	66	128	175
313 Beverages	24	51	70
314 Tobacco products	15	25	42
321 Textiles	34	74	45
322 Wearing apparel	42	130	165
323 Leather and fur products	3	?	?
324 Footwear	5	10	10
331 Wood and wood products	35	86	67
332 Furniture and fixtures	11	44	59
341 Paper and paper products	14	45	71
342 Printing and publishing	55	136	227
351 Industrial chemicals	18	51	67
352 Other chemical products	59	143	236
353 Petroleum refineries	255 a	687 a	655 a
354 Misc. petroleum and coal products	- a	- a	- a
355 Rubber products	23	44	35
356 Plastic products	19	84	95
361 Pottery, china and earthenware	-	1	1
362 Glass and glass products	5	11	15
369 Other non-metal mineral products	47	82	183
371 Iron and steel	21	62	58
372 Non-ferrous metals	5	10	16
381 Metal products	74	201	339
382 Non-electrical machinery	133	358	423
383 Electrical machinery	189	947	1116
384 Transport equipment	262	499	443
385 Professional and scientific equipment	37	81	57
280 Other manufacturing industries	17	64	60

For source, footnotes and comments see "Technical notes" above.

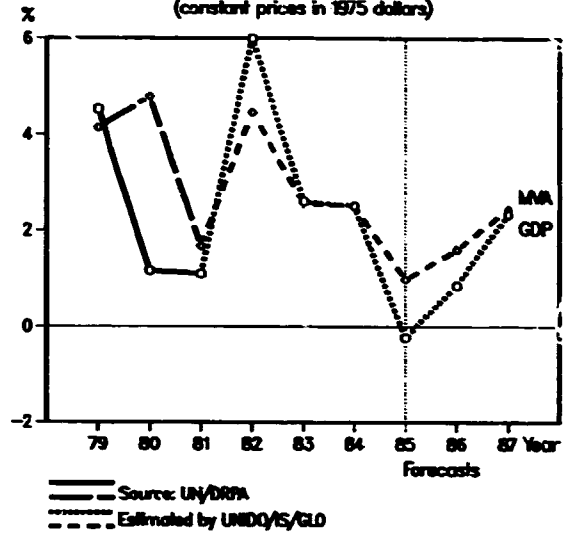


	1975	1980	1983
GDP: /ns (in million dollars)	65 /c	96 /c	103 /c
Per capita (in dollars)	341 /c	416 /c	396 /c
Manufacturing share /ns (%)
MANUFACTURING:			
Value added /ns (in million dollars)
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)	...	2	...
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change @ (in degrees)
in percentage of @ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars):			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
390 Other manufacturing industries

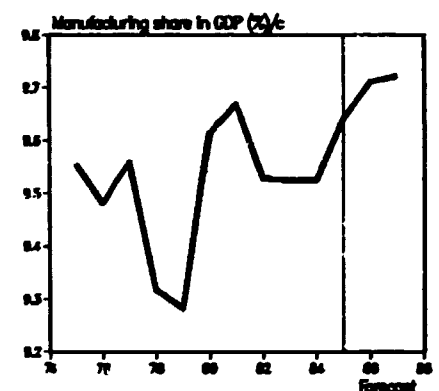
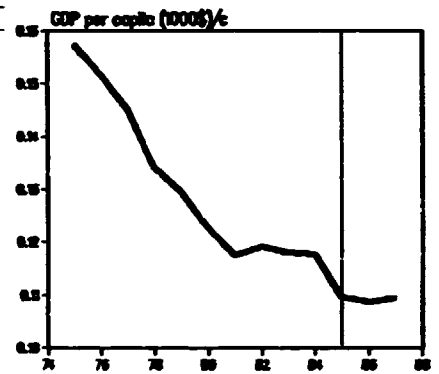


For source, footnotes and comments see "Technical notes" above.

Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

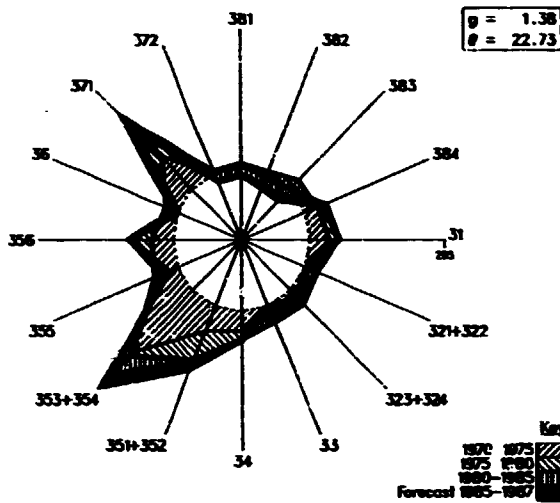


	1975	1980	1983
GDP: /na (in million dollars)	493 /c	786 /c	622 /c
Per capita (in dollars)	157 /c	123 /c	118 /c
Manufacturing share /na (%)	9.6 /c	9.6 /c	9.5 /c
MANUFACTURING:			
Value added /na (in million dollars)	47 /c	54 /c	59 /c
Value added (in million dollars)	23	...	...
Industrial production index	...	...	...
Gross output (in million dollars)	59	...	...
Employment (in thousands)	9	13	16
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	60	...	...
Wages and salaries (%)	13	...	...
Operating surplus (%)	27	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	6411	...	...
Value added / worker	2539	...	...
Average wage	815	...	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	...	...	...
in percentage of θ in 1970-1975	...	...	...
Growth rate / structural change	...	...	...
Degree of specialization	...	...	...
-VALUE ADDED: (in million dollars)			
311 Food products	10	...	...
313 Beverages	2 b	...	...
314 Tobacco products	- b	...	...
321 Textiles	1	...	...
322 Wearing apparel	-	...	...
323 Leather and fur products	1 a	...	...
324 Footwear	- a	...	...
331 Wood and wood products	-	...	...
332 Furniture and fixtures	-	...	...
341 Paper and paper products	-	...	...
342 Printing and publishing	4	...	...
351 Industrial chemicals	-	...	...
352 Other chemical products	-	...	...
353 Petroleum refineries	-	...	...
354 Misc. petroleum and coal products	-	...	...
355 Rubber products	-	...	...
356 Plastic products	2	...	...
361 Pottery, china and earthenware	-	...	...
362 Glass and glass products	-	...	...
369 Other non-metal mineral products	1	...	...
371 Iron and steel	-	...	...
372 Non-ferrous metals	-	...	...
381 Metal products	-	...	...
382 Non-electrical machinery	-	...	...
383 Electrical machinery	-	...	...
384 Transport equipment	-	...	...
385 Professional and scientific equipment	-	...	...
280 Other manufacturing industries	1	...	...

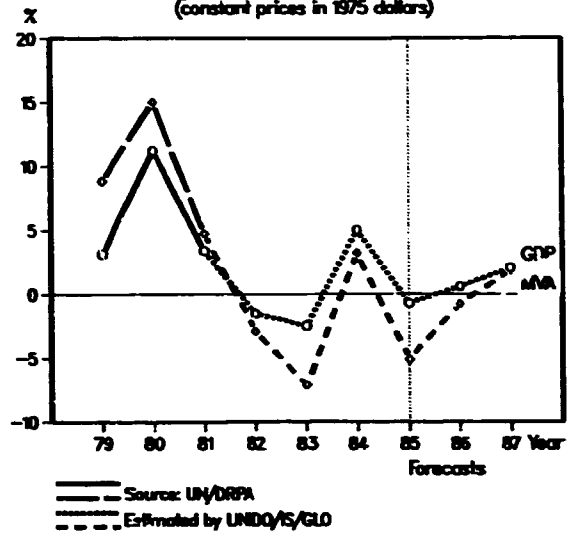


For source, footnotes and comments see "Technical notes" above.

Industrial structural change
(Index of value added: 1970=100)

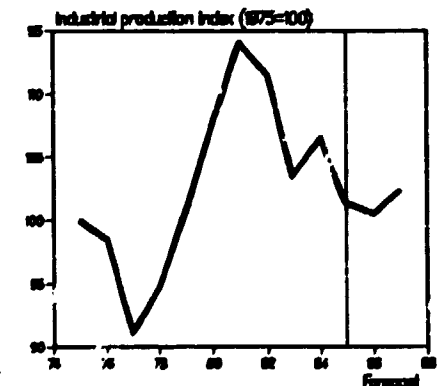
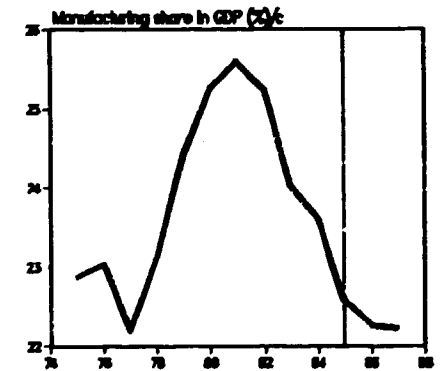
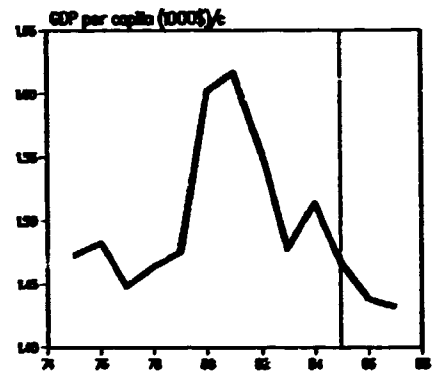


Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

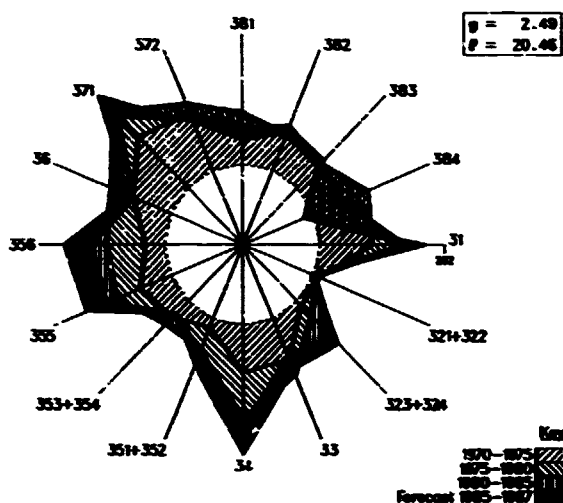


	1975	1980	1983
GDP: /na (in million dollars)	37510 /c	45841 /c	45521 /c
Per capita (in dollars)	1473 /c	1802 /c	1478 /c
Manufacturing share /na (%)	22.9 /c	25.3 /c	24.6 /c
MANUFACTURING:			
Value added /na (in million dollars)	8580 /c	11578 /c	10840 /c
Value added (in million dollars)	7623	...	...
Industrial production index	100	107	103
Gross output (in million dollars)	24653	...	...
Employment (in thousands)	1254	1469	1499
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	69	...	...
Wages and salaries (%)	17	...	...
Operating surplus (%)	14	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	19659	...	...
Value added / worker	6079	...	...
Average wage	3290	...	...
-STRUCTURAL INDICES:			
Structural change B (in degrees)	3.94	1.90	1.76
in percentage of B in 1970-1975	113	55	51
Growth rate / structural change	0.54	3.64	-4.06
Degree of specialization	10.7	10.5	10.2
-VALUE ADDED: (in million dollars)			
311 Food products	770	...	...
313 Beverages	266	...	...
314 Tobacco products	55	...	...
321 Textiles	400	...	...
322 Wearing apparel	301	...	...
323 Leather and fur products	36	...	...
324 Footwear	90	...	...
331 Wood and wood products	130	...	...
332 Furniture and fixtures	113	...	...
341 Paper and paper products	285	...	...
342 Printing and publishing	321	...	...
351 Industrial chemicals	343	...	...
352 Other chemical products	351	...	...
353 Petroleum refineries	225	...	...
354 Misc. petroleum and coal products	40	...	...
355 Rubber products	131	...	...
356 Plastic products	88	...	...
361 Pottery, china and earthenware	18	...	...
362 Glass and glass products	64	...	...
369 Other non-metal mineral products	359	...	...
371 Iron and steel	749	...	...
372 Non-ferrous metals	143	...	...
381 Metal products	687	...	...
382 Non-electrical machinery	538	...	...
383 Electrical machinery	414	...	...
384 Transport equipment	563	...	...
385 Professional and scientific equipment	31	...	...
386 Other manufacturing industries	118	...	...

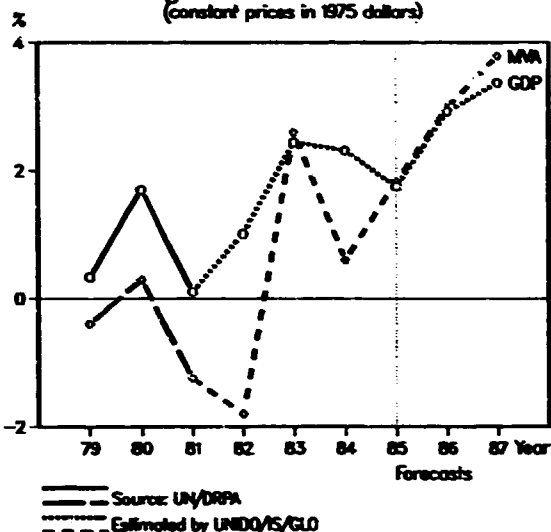
For source, footnotes and comments see "Technical notes" above.



Industrial structural change
(Index of value added: 1970=100)



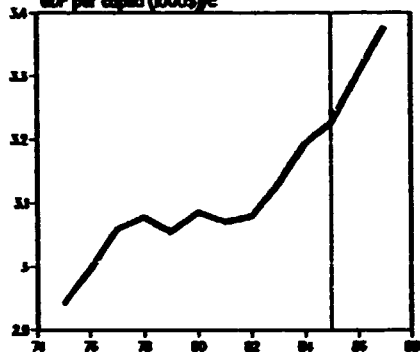
Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



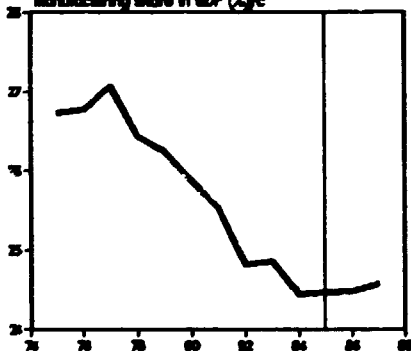
	1975	1980	1983
GDP: /na (in million dollars)	104718 /c	115494 /c	119646 /c
Per capita (in dollars)	2942 /c	3086 /c	3130 /c
Manufacturing share /na (%)	26.7 /c	25.9 /c	24.9 /c
MANUFACTURING:			
Value added /na (in million dollars)	27994 /c	29893 /c	29743 /c
Value added (in million dollars)	18629	51761	...
Industrial production index	100	108	105
Gross output (in million dollars)	64798	148523	...
Employment (in thousands)	2175	2373	2381
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	71	65	...
Wages and salaries (%)	17	16	...
Operating surplus (%)	12	19	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	29751	62589	...
Value added / worker	8553	21812	...
Average wage	5094	9:26	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	3.79	3.07	2.30
in percentage of θ in 1970-1975	88	71	53
Growth rate / structural change	-1.26	-0.02	0.50
Degree of specialization	10.1	8.4	8.3
-VALUE ADDED: (in million dollars)			
311 Food products	1644	5677	...
313 Beverages	458	1936	...
314 Tobacco products	259	650	...
321 Textiles	1340	3273	...
322 wearing apparel	562	1511	...
323 Leather and fur products	273	375	...
324 Footwear	397	812	...
331 wood and wood products	254	1297	...
332 Furniture and fixtures	640	1264	...
341 Paper and paper products	654	1281	...
342 Printing and publishing	529	1510	...
351 Industrial chemicals	1308	2110	...
352 Other chemical products	926	2301	...
353 Petroleum refineries	367	1411	...
354 M.c. petroleum and coal products	52	116	...
355 Rubber products	360	1021	...
356 Plastic products	503	1100	...
361 Pottery, china and earthenware	353	341	...
362 Glass and glass products	266	642	...
369 Other non-metal mineral products	788	2846	...
371 Iron and steel	982	3169	...
372 Non-ferrous metals	346	1051	...
381 Metal products	1644	4229	...
382 Non-electrical machinery	635	2920	...
383 Electrical machinery	1230	3678	...
384 Transport equipment	1608	4795	...
385 Professional and scientific equipment	111	206	...
390 Other manufacturing industries	127	480	...

For source, footnotes and comments see "Technical notes" above.

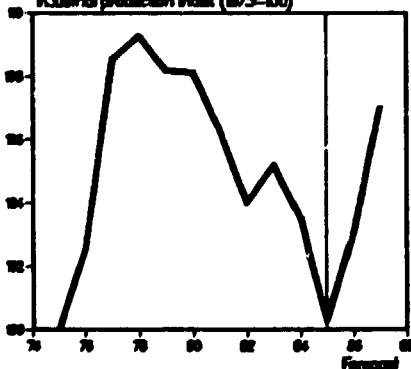
GDP per capita (1000\$)/c



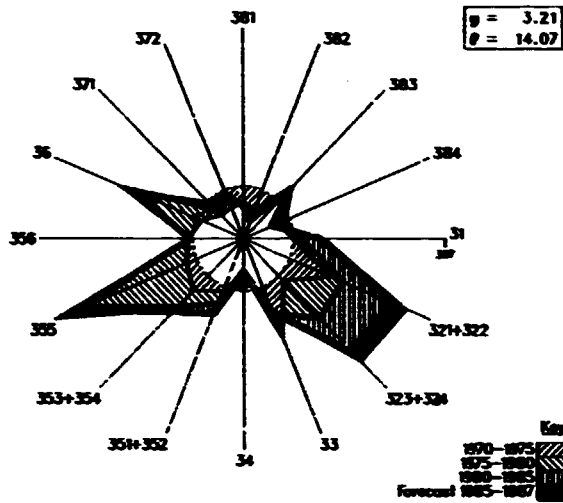
Manufacturing share in GDP (%)



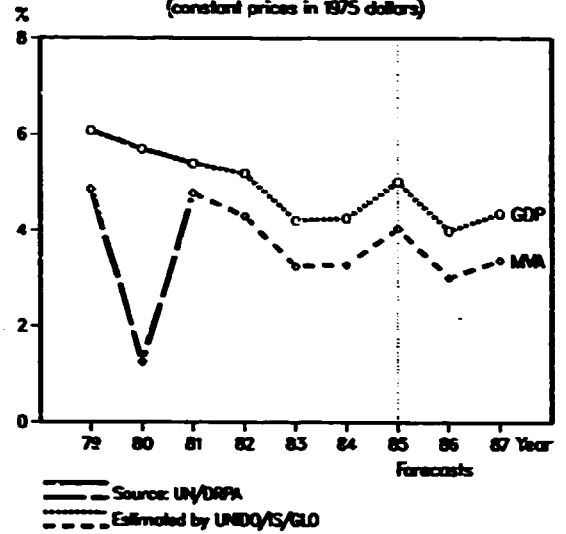
Industrial production index (1975=100)



Industrial structural change (Index of value added: 1970=100)

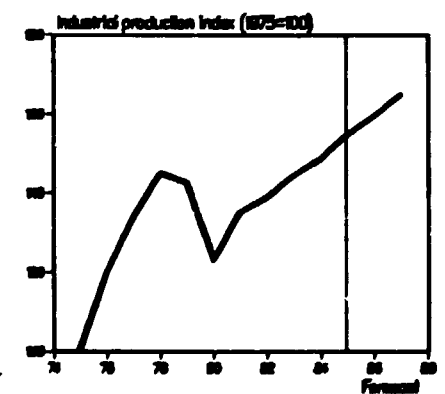
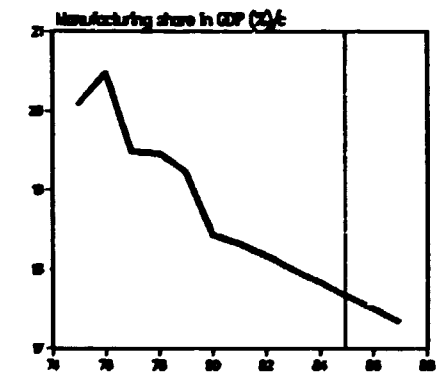
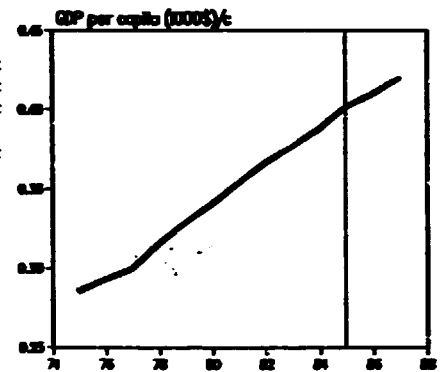


Annual growth rates of GDP and MVA (constant prices in 1975 dollars)

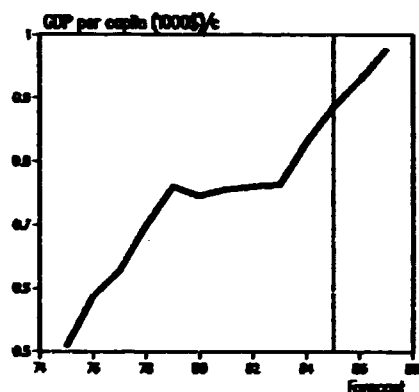


	1975	1980	1983
GDP: /na (in million dollars)	3854 /c	5632 /c	5812 /c
Per capita (in dollars)	285 /c	341 /c	377 /c
Manufacturing share /na (%)	20.1 /c	18.4 /c	18.0 /c
MANUFACTURING:			
Value added /na (in million dollars)	774 /c	928 /c	1046 /c
Value added (in million dollars)	...	308	...
Industrial production index	100	123	144
Gross output (in million dollars)	...	1132	...
Employment (in thousands)	128	163	177
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	...	75	...
Wages and salaries (%)	...	7	...
Operating surplus (%)	...	20	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	...	6951	...
Value added / worker	...	1882	...
Average wage	...	487	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	5.74	23.90	0.91
in percentage of θ in 1970-1975	47	195	7
Growth rate / structural change	-0.27	-0.57	4.22
Degree of specialization:	26.2	25.1	26.8
-VALUE ADDED: (in million dollars)			
311 Food products	...	28	...
313 Beverages	...	9	...
314 Tobacco products	...	64	...
321 Textiles	...	27	...
322 wearing apparel	...	12	...
323 Leather and fur products	...	1	...
324 Footwear	...	2	...
331 Wood and wood products	...	5	...
332 Furniture and fixtures	...	1	...
341 Paper and paper products	...	8	...
342 Printing and publishing	...	4	...
351 Industrial chemicals	...	6	...
352 Other chemical products	...	12	...
353 Petroleum refineries	...	95	...
354 Misc. petroleum and coal products	...	-	...
355 Rubber products	...	14	...
356 Plastic products	...	4	...
361 Pottery, china and earthenware	...	4	...
362 Glass and glass products	...	2	...
369 Other non-metal mineral products	...	21	...
371 Iron and steel	...	3	...
372 Non-ferrous metals	...	2	...
381 Metal products	...	7	...
382 Non-electrical machinery	...	4	...
383 Electrical machinery	...	10	...
384 Transport equipment	...	4	...
385 Professional and scientific equipment	...	1	...
389 Other manufacturing industries	...	1	...

For source, footnotes and comments see "Technical notes" above.



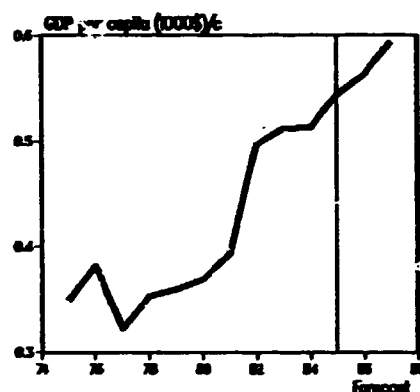
	1975	1980	1983
GDP: /na (in million dollars)	56 /c	90 /c	96 /c
Per capita (in dollars)	507 /c	746 /c	763 /c
Manufacturing share /na (%)
MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
EMPLOYMENT (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (x)
Wages and salaries (x)
Operating surplus (x)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
389 Other manufacturing industries



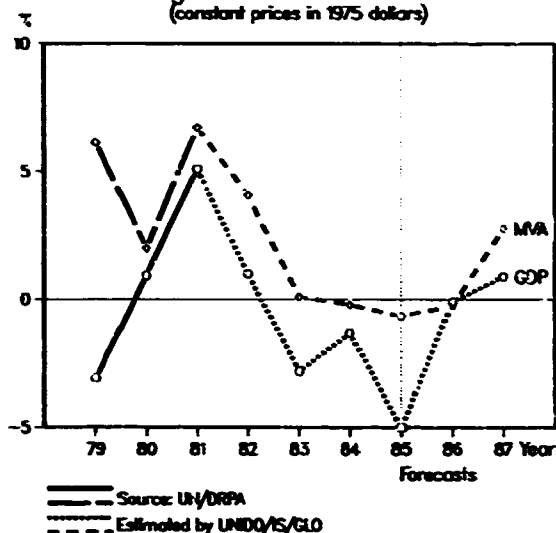
For source, footnotes and comments see "Technical notes" above.

	1975	1980	1983
GDP: /na (in million dollars)	33 /c	45 /c	52 /c
Per capita (in dollars)	349 /c	369 /c	512 /c
Manufacturing share /na (%)
MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 wearing appare!
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
389 Other manufacturing industries

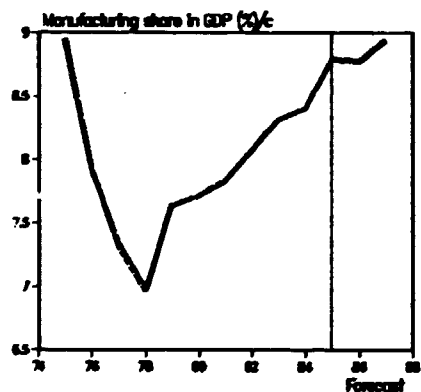
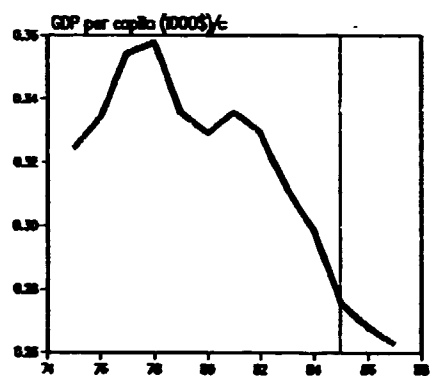
For source, footnotes and comments see "Technical notes" above.



Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



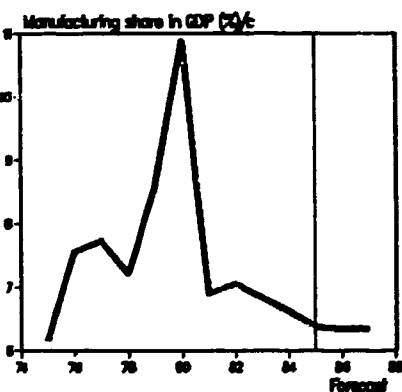
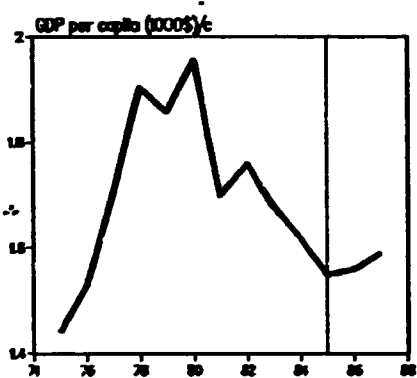
	1975	1980	1983
GDP: /na (in million dollars)	5103 /c	6148 /c	6343 /c
Per capita (in dollars)	324 /c	329 /c	312 /c
Manufacturing share /na (%)	9.0 /c	7.7 /c	6.3 /c
MANUFACTURING:			
Value added /na (in million dollars)	457 /c	474 /c	527 /c
Value added (in million dollars)	275	...	...
Industrial production index
Gross output (in million dollars)	828	...	...
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change B (in degrees)
in percentage of B in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
390 Other manufacturing industries



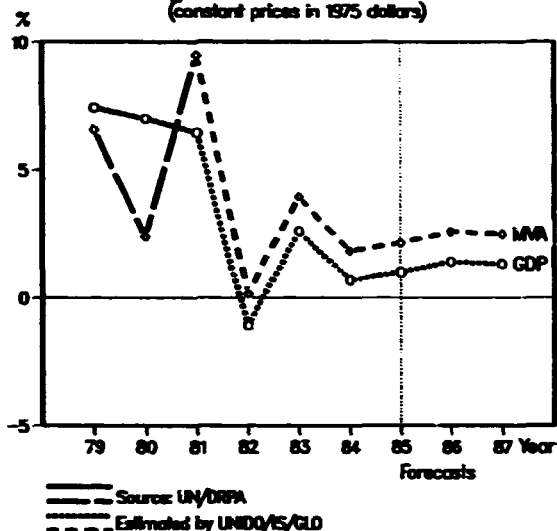
For source, footnotes and comments see "Technical notes" above.

	1975	1980	1983
GDP: /na (in million dollars)	525 /c	694 /c	621 /c
Per capita (in dollars)	1441 /c	1955 /c	1677 /c
Manufacturing share /na (%)	6.2 /c	10.9 /c	6.8 /c
MANUFACTURING:			
Value added /na (in million dollars)	32 /c	75 /c	42 /c
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)	88	...	...
Employment (in thousands)	9	...	...
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
389 Other manufacturing industries

For source, footnotes and comments see "Technical notes" above.

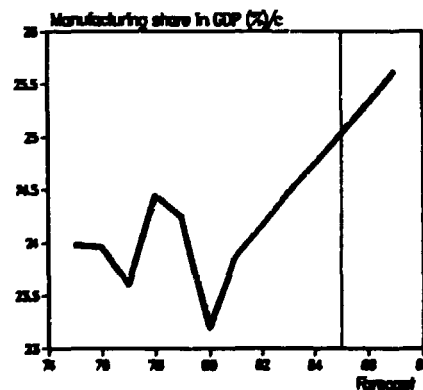
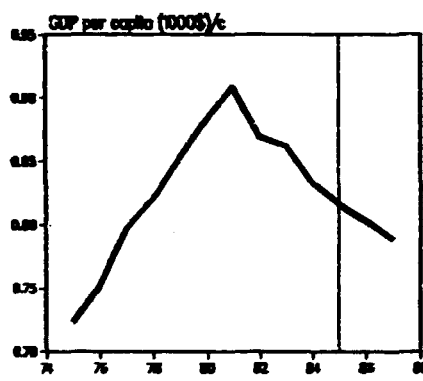


Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

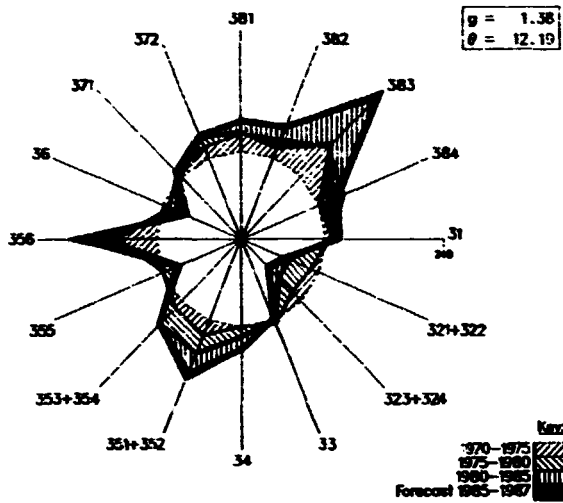


	1975	1980	1983
GDP: /na (in million dollars)	347 /c	483 /c	522 /c
Per capita (in dollars)	724 /c	883 /c	862 /c
Manufacturing share /na (%)	24.0 /c	23.2 /c	24.5 /c
MANUFACTURING:			
value added /na (in million dollars)	83 /c	112 /c	126 /c
Value added (in million dollars)	...	104	...
Industrial production index
Gross output (in million dollars)	...	394	...
Employment (in thousands)	...	11	...
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	...	74	...
Wages and salaries (%)	...	11	...
Operating surplus (%)	...	16	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	...	36583	...
Value added / worker	...	9633	...
Average wage	...	3907	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products	...	39	...
313 Beverages	...	4	...
314 Tobacco products	...	-	...
321 Textiles	...	3 d	...
322 Wearing apparel	...	- d	...
323 Leather and fur products	...	- d	...
324 Footwear	...	-	...
331 Wood and wood products	...	8 b	...
332 Furniture and fixtures	...	- b	...
341 Paper and paper products	...	31 c	...
342 Printing and publishing	...	- c	...
351 Industrial chemicals	...	11 e	...
352 Other chemical products	...	- e	...
353 Petroleum refineries	...	- e	...
354 Misc. petroleum and coal products	...	- e	...
355 Rubber products
356 Plastic products	...	- e	...
361 Pottery, china and earthenware	...	-	...
362 Glass and glass products	...	1 f	...
369 Other non-metal mineral products	...	- f	...
371 Iron and steel	...	-	...
372 Non-ferrous metals	...	-	...
381 Metal products	...	4	...
382 Non-electrical machinery	...	2 g	...
383 Electrical machinery	...	- g	...
384 Transport equipment	...	-	...
385 Professional and scientific equipment	...	-	...
389 Other manufacturing industries	...	-	...

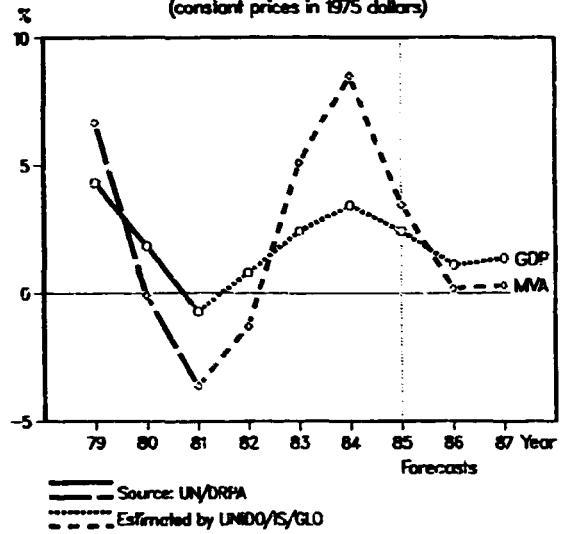
For source, footnotes and comments see "Technical notes" above.



Industrial structural change
(Index of value added: 1970=100)



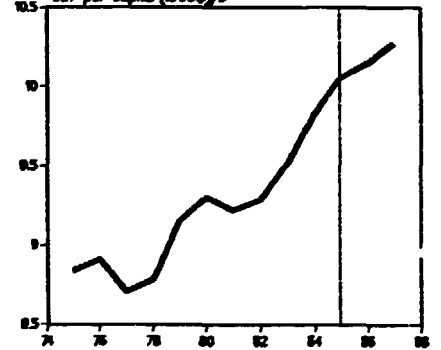
Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



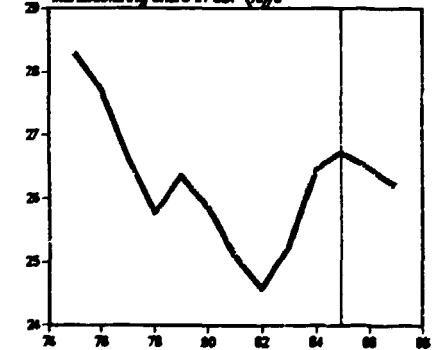
	1975	1980	1983
GDP: /na (in million dollars)	72390 /c	77291 /c	79217 /c
Per capita (in dollars)	8839 /c	9301 /c	9509 /c
Manufacturing share /na (%)	28.3 /c	25.9 /c	25.2 /c
MANUFACTURING:			
Value added /na (in million dollars)	20482 /c	19985 /c	19981 /c
value added (in million dollars)	21145	30927	...
Industrial production index	100	98	100
Gross output (in million dollars)	45803	73246	...
Employment (in thousands)	926	853	782
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	54	58	...
wages and salaries (%)	22	18	...
Operating surplus (%)	25	24	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	49485	85868	...
Value added / worker	22844	36257	...
Average wage	10674	15846	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	5.69	3.30	2.24
in percentage of θ in 1970-1975	198	115	78
Growth rate / structural change	-0.43	0.10	2.85
Degree of specialization	16.5	16.7	17.5
-VALUE ADDED: (in million dollars)			
311 Food products	1806	2721	...
313 Beverages	222	338	...
314 Tobacco products	83	104	...
321 Textiles	449	535	...
322 Wearing apparel	314	274	...
323 Leather and fur products	51	54	...
324 Footwear	51	62	...
331 Wood and wood products	1239	2103	...
332 Furniture and fixtures	302	452	...
341 Paper and paper products	2094	2598	...
342 Printing and publishing	1063	1843	...
351 Industrial chemicals	625	987	...
352 Other chemical products	563	1247	...
353 Petroleum refineries	82	360	...
354 Misc. petroleum and coal products	60	137	...
355 Rubber products	256	315	...
356 Plastic products	239	402	...
361 Pottery, china and earthenware	80	88	...
362 Glass and glass products	57	175	...
369 Other non-metal mineral products	560	802	...
371 Iron and steel	1181	1651	...
372 Non-ferrous metals	275	390	...
381 Metal products	1852	2600	...
382 Non-electrical machinery	2767	3939	...
383 Electrical machinery	1787	2572	...
384 Transport equipment	2753	3655	...
385 Professional and scientific equipment	205	371	...
390 Other manufacturing industries	109	154	...

For source, footnotes and comments see "Technical notes" above.

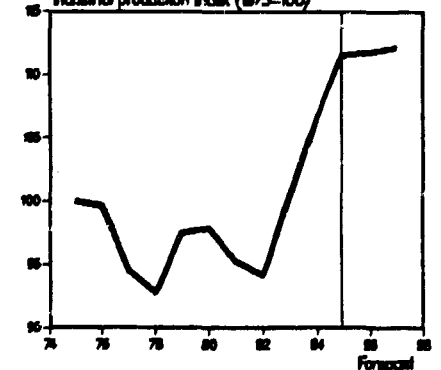
GDP per capita (1000\$)/c



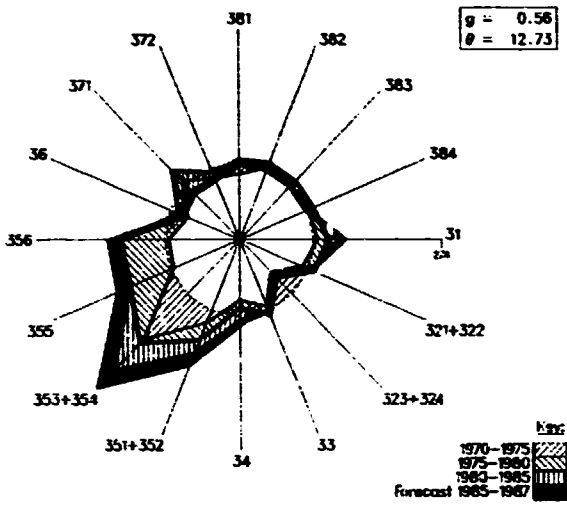
Manufacturing share in GDP (%) /c



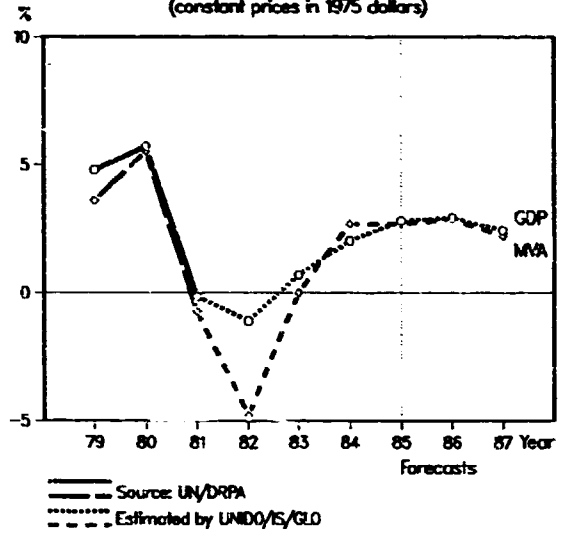
Industrial production index (1975=100)



Industrial structural change
(Index of value added: 1970=100)

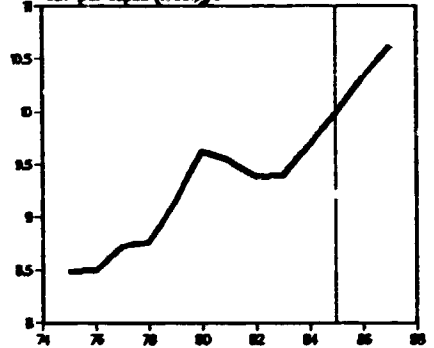


Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

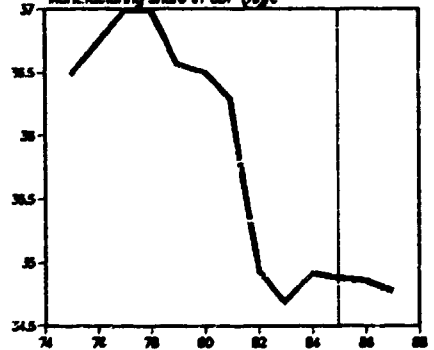


	1975	1980	1983
GDP: /na (in million dollars)	54352 /c	61472 /c	61133 /c
Per capita (in dollars)	8493 /c	9620 /c	9391 /c
Manufacturing share /na (%)	36.5 /c	36.5 /c	34.7 /c
MANUFACTURING:			
Value added /na (in million dollars)	19831 /c	22438 /c	21207 /c
Value added (in million dollars)	13370	...	...
Industrial production index	100	111	103
Gross output (in million dollars)	...	...	...
Employment (in thousands)	707	686	677
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	...	...	...
Wages and salaries (%)	...	...	...
Operating surplus (%)	...	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	...	...	...
Value added / worker	...	...	...
Average wage	...	...	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	4.33	1.70	1.71
in percentage of θ in 1970-1975	170	67	67
Growth rate / structural change	-2.84	2.87	-0.04
Degree of specialization	12.6	11.6	11.9
-VALUE ADDED: (in million dollars)			
311 Food products	1686	...	...
313 Beverages	329	...	...
314 Tobacco products	207	...	...
321 Textiles	549	...	...
322 Wearing apparel	416	...	...
323 Leather and fur products	47	...	...
324 Footwear	107	...	...
331 Wood and wood products	547	...	...
332 Furniture and fixtures	366	...	...
341 Paper and paper products	222	...	...
342 Printing and publishing	693	...	...
351 Industrial chemicals	784	...	...
352 Other chemical products	1037	...	...
353 Petroleum refineries	259	...	...
354 Misc. petroleum and coal products	93	...	...
355 Rubber products	64	...	...
356 Plastic products	179	...	...
361 Pottery, china and earthenware	66	...	...
362 Glass and glass products	86	...	...
369 Other non-metal mineral products	318	...	...
371 Iron and steel	181	...	...
372 Non-ferrous metals	213	...	...
381 Metal products	910	...	...
382 Non-electrical machinery	1790	...	...
383 Electrical machinery	1341	...	...
384 Transport equipment	252	...	...
385 Professional and scientific equipment	580	...	...
380 Other manufacturing industries	67	...	...

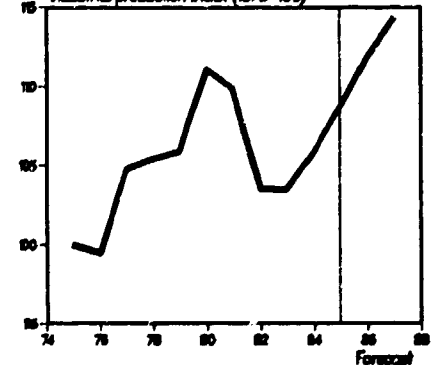
GDP per capita (000\$)/c



Manufacturing share in GDP (%)/c

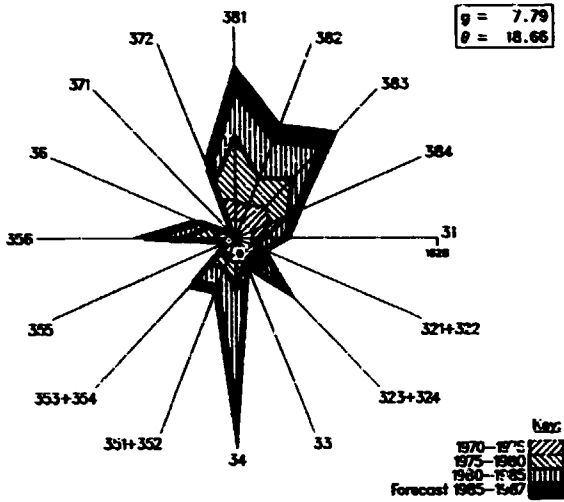


Industrial production index (1975=100)

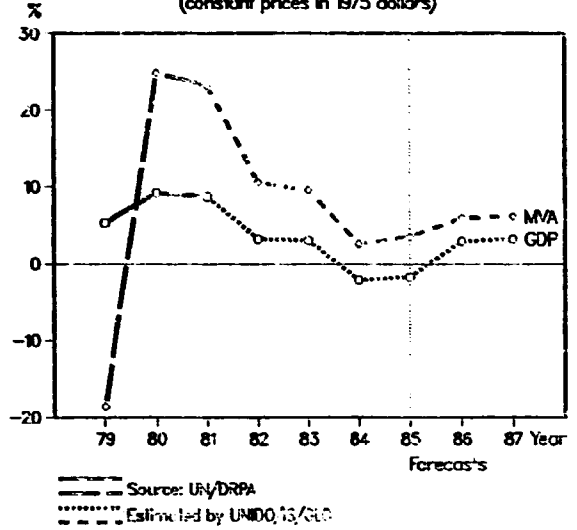


For source, footnotes and comments see "Technical notes" above.

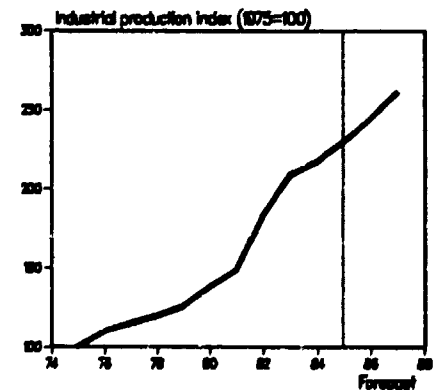
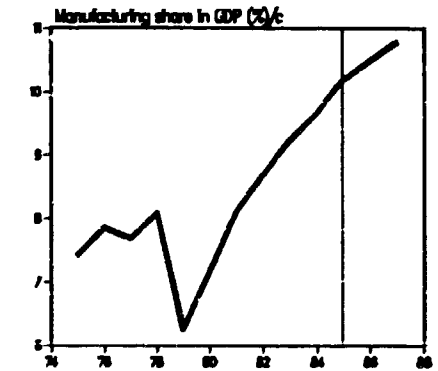
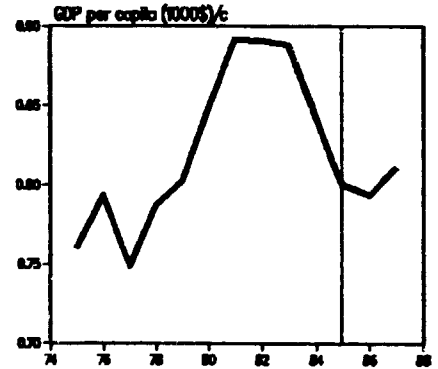
Industrial structural change
(Index of value added: 1970=100)



Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

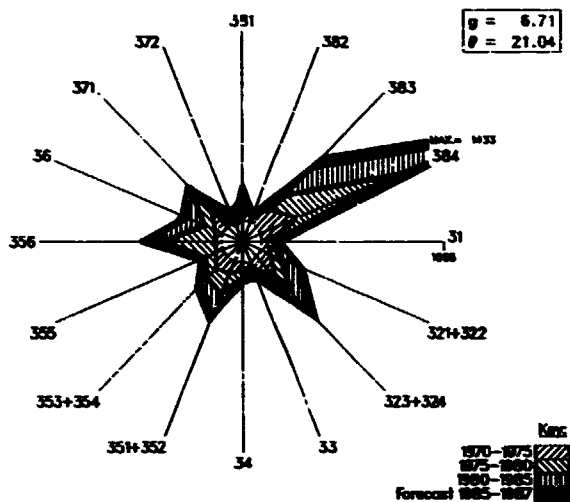


	1975	1980	1983
GDP: /na (in million dollars)	5598 /c	7377 /c	8537 /c
Per capita (in dollars)	761 /c	848 /c	886 /c
Manufacturing share /na (%)	7.4 /c	7.2 /c	9.2 /c
MANUFACTURING:			
Value added /na (in million dollars)	415 /c	528 /c	788 /c
Value added (in million dollars)	547	1688	...
Industrial production index	100	138	209
Gross output (in million dollars)	1448	3993	...
Employment (in thousands)	157	196	...
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	62	58	...
Wages and salaries (%)	8	9	...
Operating surplus (%)	30	33	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	9252	20416	...
Value added / worker	3496	5629	...
Average wage	767	1870	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	3.94	5.43	3.09
in percentage of θ in 1970-1975	97	134	76
Growth rate / structural change	2.82	1.82	4.45
Degree of specialization	27.2	22.7	24.0
-VALUE ADDED: (in million dollars)			
311 Food products	94	350	...
313 Beverages	11	43	...
314 Tobacco products	26	96	...
321 Textiles	191	325	...
322 Wearing apparel	17	33	...
323 Leather and fur products	8	20	...
324 Footwear	32	61	...
331 Wood and wood products	12	39	...
332 Furniture and fixtures	26	66	...
341 Paper and paper products	1	3	...
342 Printing and publishing	5	7	...
351 Industrial chemicals	1	8	...
352 Other chemical products	19	143	...
353 Petroleum refineries	16	150	...
354 Misc. petroleum and coal products	-	5	...
355 Rubber products	5	69	...
356 Plastic products	5	58	...
361 Pottery, china and earthenware	1	6	...
362 Glass and glass products	3	8	...
369 Other non-metal mineral products	15	39	...
371 Iron and steel	-	-	...
372 Non-ferrous metals	5	16	...
381 Metal products	32	77	...
382 Non-electrical machinery	10	24	...
383 Electrical machinery	4	10	...
384 Transport equipment	1	1	...
385 Professional and scientific equipment	-	-	...
389 Other manufacturing industries	5	10	...

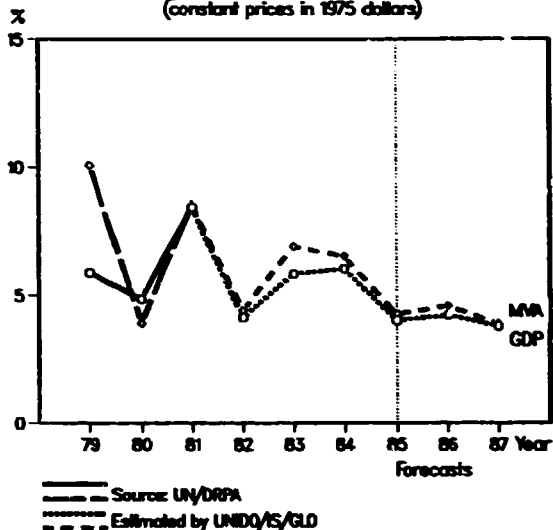


For source, footnotes and comments see "Technical notes" above.

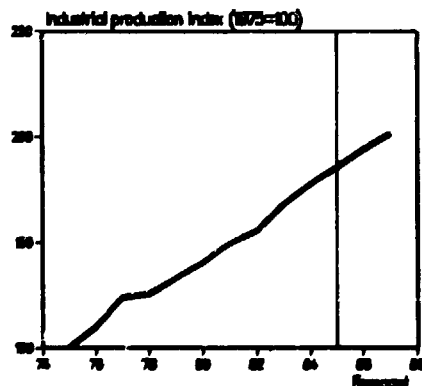
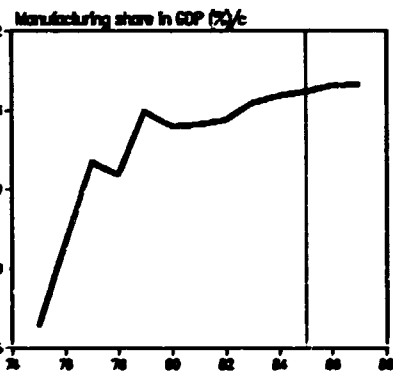
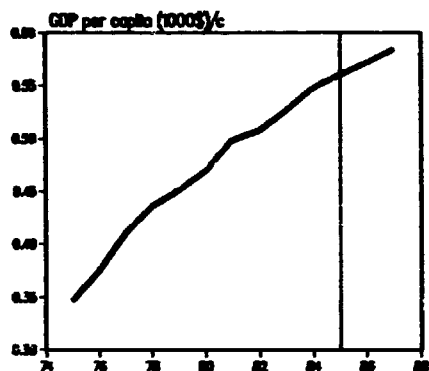
Industrial structural change
(Index of value added: 1970=100)



Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

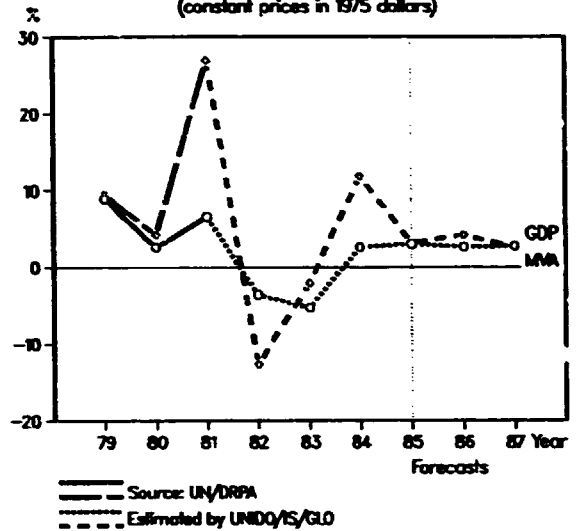


	1975	1980	1983
GDP: /na (in million dollars)	14509 /c	21805 /c	26040 /c
Per capita (in dollars)	347 /c	465 /c	526 /c
Manufacturing share /na (%)	18.3 /c	20.8 /c	21.1 /c
MANUFACTURING:			
Value added /na (in million dollars)	2651 /c	4535 /c	5491 /c
Value added (in million dollars)	2645	6570	...
Industrial production index	100	140	168
Gross output (in million dollars)	8083	20151	...
Employment (in thousands)	1356	1789	2227
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	67	67	...
wages and salaries (%)	7	7	...
Operating surplus (%)	25	25	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	5962	11265	...
Value added / worker	1951	3672	...
Average wage	432	844	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	13.25	4.99	3.45
in percentage of θ in 1970-1975	135	51	35
Growth rate / structural change	-0.04	1.16	2.28
Degree of specialization	16.3	14.8	15.7
-VALUE ADDED: (in million dollars)			
311 Food products	614	1192	...
313 Beverages	206	396	...
314 Tobacco products	203	290	...
321 Textiles	268	577	...
322 Wearing apparel	123	692	...
323 Leather and fur products	10	4	...
324 Footwear	54	20	...
331 wood and wood products	70	157	...
332 Furniture and fixtures	28	60	...
341 Paper and paper products	13	81	...
342 Printing and publishing	79	146	...
351 Industrial chemicals	3	12	...
352 Other chemical products	102	436	...
353 Petroleum refineries	264	669	...
354 Misc. petroleum and coal products	16	41	...
355 Rubber products	28	75	...
356 Plastic products	28	75	...
361 Pottery, china and earthenware	13	39	...
362 Glass and glass products	21	65	...
369 Other non-metal mineral products	102	314	...
371 Iron and steel	28	84	...
372 Non-ferrous metals	20	60	...
381 Metal products	44	127	...
382 Non-electrical machinery	26	74	...
383 Electrical machinery	21	149	...
384 Transport equipment	193	539	...
385 Professional and scientific equipment	10	30	...
390 Other manufacturing industries	57	168	...

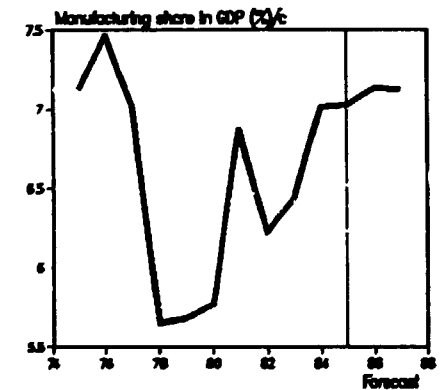
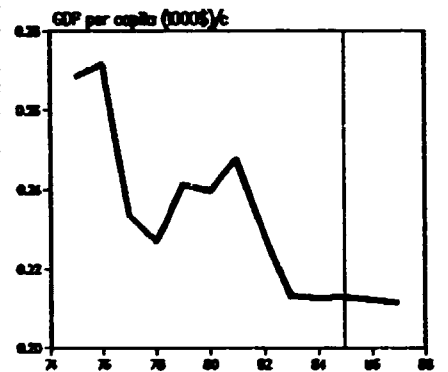


For source, footnotes and comments see "Technical notes" above.

Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

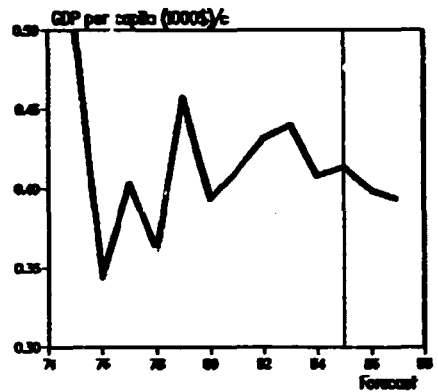


	1975	1980	1983
GDP: /na (in million dollars)	598 /c	611 /c	594 /c
Per capita (in dollars)	268 /c	240 /c	213 /c
Manufacturing share /na (%)	7.1 /c	5.8 /c	6.4 /c
MANUFACTURING:			
Value added /na (in million dollars)	43 /c	35 /c	38 /c
Value added (in million dollars)	18	...	...
Industrial production index	...	...	...
Gross output (in million dollars)	64	...	...
Employment (in thousands)	4	4	5
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	71	...	...
Wages and salaries (%)	10	...	...
Operating surplus (%)	19	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	17773	...	...
Value added / worker	5162	...	...
Average wage	1716	...	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	...	...	...
in percentage of θ in 1970-1975	...	...	...
Growth rate / structural change	...	...	...
Degree of specialization	...	...	...
-VALUE ADDED: (in million dollars)			
311 Food products	1	...	...
313 Beverages	5	...	...
314 Tobacco products	...	...	...
321 Textiles	5	...	...
322 wearing apparel	...	...	...
323 Leather and fur products	...	...	...
324 Footwear	1	...	...
331 Wood and wood products	1	...	...
332 Furniture and fixtures	...	...	...
341 Paper and paper products	...	...	...
342 Printing and publishing	1	...	...
351 Industrial chemicals	1	...	...
352 Other chemical products	...	...	...
353 Petroleum refineries	...	...	...
354 Misc. petroleum and coal products	...	...	...
355 Rubber products	...	...	...
356 Plastic products	...	...	...
361 Pottery, china and earthenware	...	...	...
362 Glass and glass products	...	...	...
369 Other non-metal mineral products	...	...	...
371 Iron and steel	...	...	...
372 Non-ferrous metals	...	...	...
381 Metal products	...	...	...
382 Non-electrical machinery	...	...	...
383 Electrical machinery	...	...	...
384 Transport equipment	...	...	...
385 Professional and scientific equipment	...	...	...
399 Other manufacturing industries	2	...	...



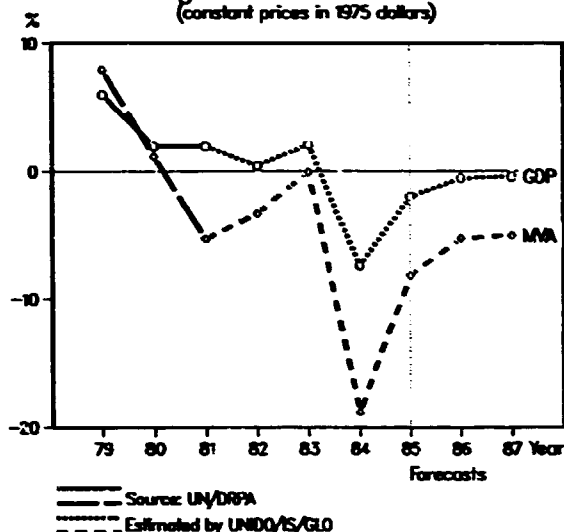
For source, footnotes and comments see "Technical notes" above.

	1975	1980	1983
GDP: /na (in million dollars)	44 /c	37 /c	42 /c
Per capita (in dollars)	500 /c	394 /c	440 /c
Manufacturing share /na (%)
MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)	3	9	...
Employment (in thousands)	1	1	...
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change B (in degrees)
in percentage of B in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
390 Other manufacturing industries

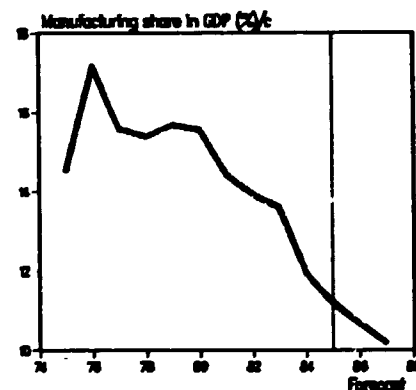
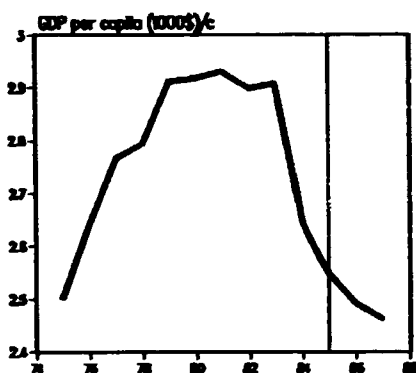


For source, footnotes and comments see "Technical notes" above.

Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

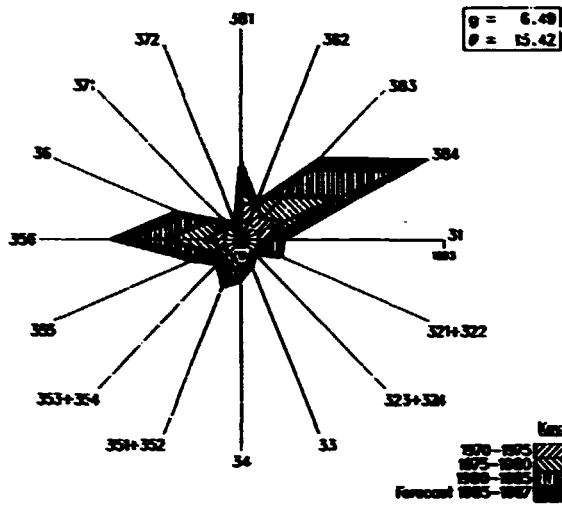


	1975	1980	1983
GDP: /na (in million dollars)	2523 /c	3196 /c	3341 /c
Per capita (in dollars)	2501 /c	2919 /c	2908 /c
Manufacturing share /na (%)	14.5 /c	15.6 /c	13.6 /c
MANUFACTURING:			
Value added /na (in million dollars)	366 /c	497 /c	455 /c
Value added (in million dollars)	303	...	...
Industrial production index	...	...	...
Gross output (in million dollars)	602	...	...
Employment (in thousands)	36	44	48
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	50	...	...
Wages and salaries (%)	19	...	...
Operating surplus (%)	32	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	16732	...	...
Value added / worker	8415	...	...
Average wage	3096	...	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	...	...	...
in percentage of θ in 1970-1975	...	...	...
Growth rate / structural change	...	...	...
Degree of specialization	...	...	...
-VALUE ADDED: (in million dollars)			
311 Food products	38	...	...
313 Beverages	10	...	...
314 Tobacco products	6	...	...
321 Textiles	1	...	...
322 Wearing apparel	9	...	...
323 Leather and fur products	-	...	...
324 Footwear	1	...	...
331 Wood and wood products	7	...	...
332 Furniture and fixtures	4	...	...
341 Paper and paper products	7	...	...
342 Printing and publishing	8	...	...
351 Industrial chemicals	10	...	...
352 Other chemical products	3	...	...
353 Petroleum refineries	141	...	...
354 Misc. petroleum and coal products	1	...	...
355 Rubber products	-	...	...
356 Plastic products	1	...	...
361 Pottery, china and earthenware	1	...	...
362 Glass and glass products	-	...	...
369 Other non-metal mineral products	4	...	...
371 Iron and steel	-	...	...
372 Non-ferrous metals	-	...	...
381 Metal products	14	...	...
382 Non-electrical machinery	10	...	...
383 Electrical machinery	2	...	...
384 Transport equipment	19	...	...
385 Professional and scientific equipment	-	...	...
389 Other manufacturing industries	6	...	...

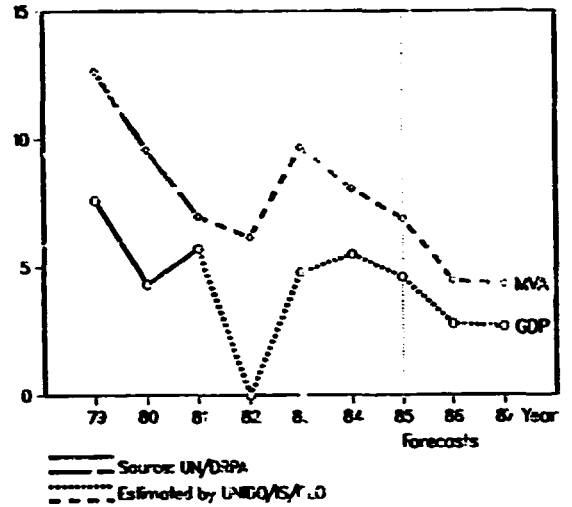


For source, footnotes and comments see "Technical notes" above.

Industrial structural change
(Index of value added: 1970=100)

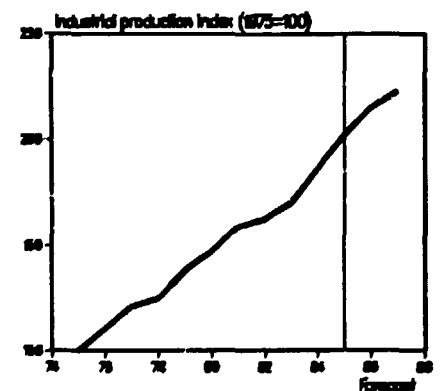
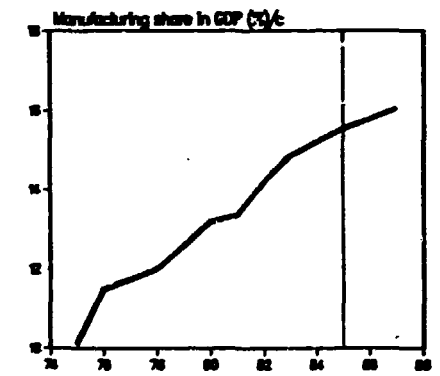
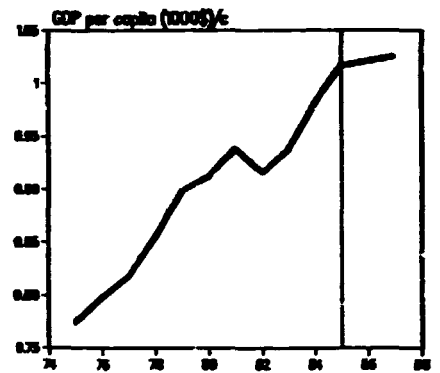


Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

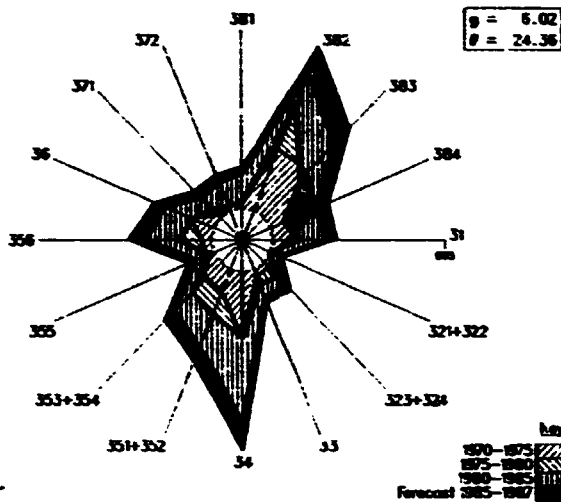


	1975	1980	1983
GDP: /na (in million dollars)	4343 /c	5831 /c	6459 /c
Per capita (in dollars)	774 /c	912 /c	938 /c
Manufacturing share /na (%)	10.1 /c	13.2 /c	14.8 /c
MANUFACTURING:			
Value added /na (in million dollars)	439 /c	770 /c	956 /c
Value added (in million dollars)	341	939	...
Industrial production index	100	147	170
Gross output (in million dollars)	1400	3579	...
Employment (in thousands)	77	125	169
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	76	74	...
Wages and salaries (%)	12	12	...
Operating surplus (%)	13	14	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	18113	22737	...
Value added / worker	4413	7442	...
Average wage	2132	3499	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	6.36	5.16	5.03
in percentage of θ in 1970-1975	126	103	100
Growth rate / structural change	0.25	1.27	0.90
Degree of specialization	14.2	14.1	14.9
-VALUE ADDED: (in million dollars)			
311 Food products	54	96	...
313 Beverages	20	49	...
314 Tobacco products	11	22	...
321 Textiles	28	95	...
322 Wearing apparel	21	92	...
323 Leather and fur products	5	6	...
324 Footwear	8	21	...
331 wood and wood products	7	12	...
332 Furniture and fixtures	4	13	...
341 Paper and paper products	13	24	...
342 Printing and publishing	9	17	...
351 Industrial chemicals	15	42	...
352 Other chemical products	35	96	...
353 Petroleum refineries	7	13	...
354 Misc. petroleum and coal products	-	-	...
355 Rubber products	4	8	...
356 Plastic products	5	18	...
361 Pottery, china and earthenware	4	11	...
362 Glass and glass products	2	7	...
369 Other non-metal mineral products	33	156	...
371 Iron and steel	16	45	...
372 Non-ferrous metals	4	8	...
381 Metal products	11	53	...
382 Non-electrical machinery	1	2	...
383 Electrical machinery	8	35	...
384 Transport equipment	12	30	...
385 Professional and scientific equipment	-	1	...
389 Other manufacturing industries	4	5	...

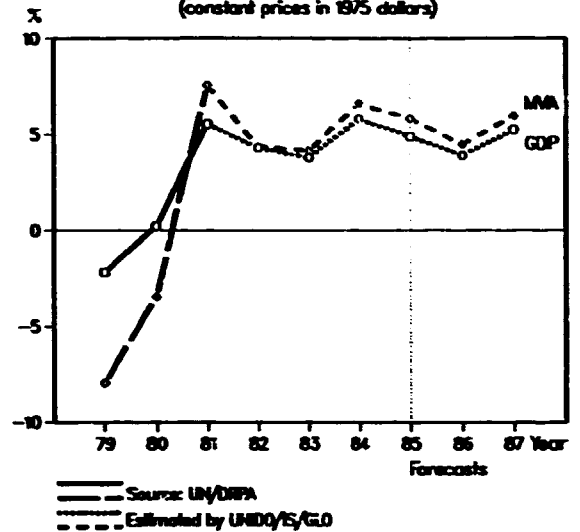
For source, footnotes and comments see "Technical notes" above.



Industrial structural change
(Index of value added: 1970=100)



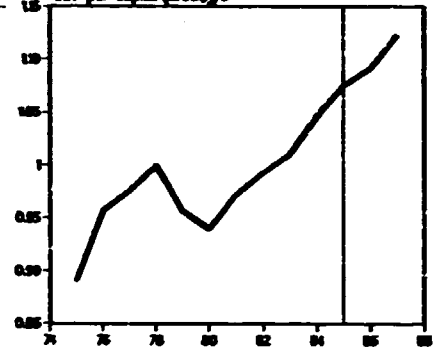
Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



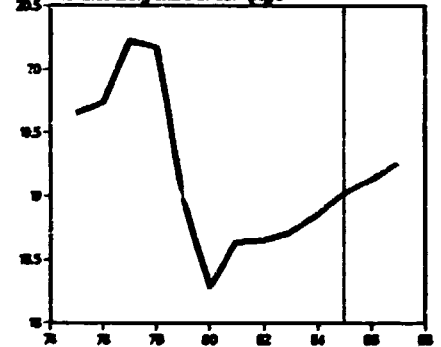
	1975	1980	1983
GDP: /na (in million dollars)	35694 /c	41761 /c	47715 /c
Per capita (in dollars)	890 /c	940 /c	1009 /c
Manufacturing share /na (%)	19.7 /c	18.3 /c	16.7 /c
MANUFACTURING:			
Value added /na (in million dollars)	7017 /c	7637 /c	8929 /c
Value added (in million dollars)	6082	9473	...
Industrial production index	100	103	135
Gross output (in million dollars)	17563	27184	...
Employment (in thousands)	700	794	856
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	65	65	...
Wages and salaries (%)	11	12	...
Operating surplus (%)	24	23	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	25104	34217	...
Value added / worker	8693	11823	...
Average wage	2782	4133	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	3.67	6.26	2.55
in percentage of θ in 1970-1975	58	99	40
Growth rate / structural change	2.47	-1.02	3.07
Degree of specialization	16.6	14.4	15.3
-VALUE ADDED: (in million dollars)			
311 Food products	640	1140	...
313 Beverages	191	188	...
314 Tobacco products	483	470	...
321 Textiles	786	1416	...
322 Wearing apparel	44	66	...
323 Leather and fur products	25	24	...
324 Footwear	14	30	...
331 Wood and wood products	71	121	...
332 Furniture and fixtures	15	21	...
341 Paper and paper products	140	235	...
342 Printing and publishing	83	101	...
351 Industrial chemicals	315	764	...
352 Other chemical products	244	358	...
353 Petroleum refineries	916	277	...
354 Misc. petroleum and coal products	49	162	...
355 Rubber products	71	229	...
356 Plastic products	68	121	...
361 Pottery, china and earthenware	40	70	...
362 Glass and glass products	62	109	...
369 Other non-metal mineral products	202	530	...
371 Iron and steel	446	769	...
372 Non-ferrous metals	100	288	...
381 Metal products	211	426	...
382 Non-electrical machinery	283	505	...
383 Electrical machinery	205	425	...
384 Transport equipment	354	596	...
385 Professional and scientific equipment	6	7	...
389 Other manufacturing industries	19	25	...

For source, footnotes and comments see "Technical notes" above.

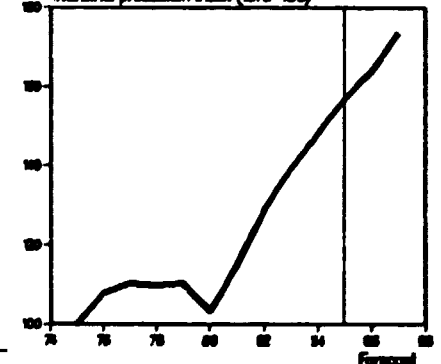
GDP per capita (1000\$)/c



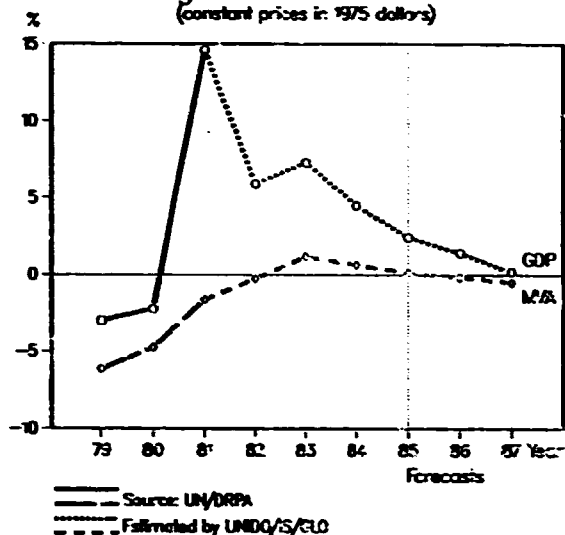
Manufacturing share in GDP (%)c



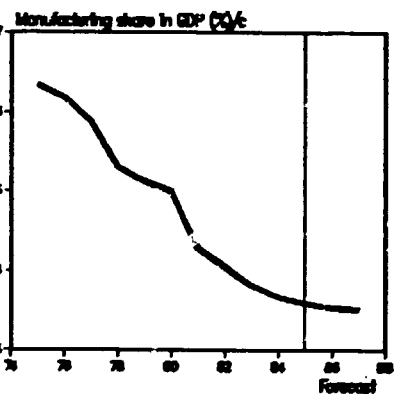
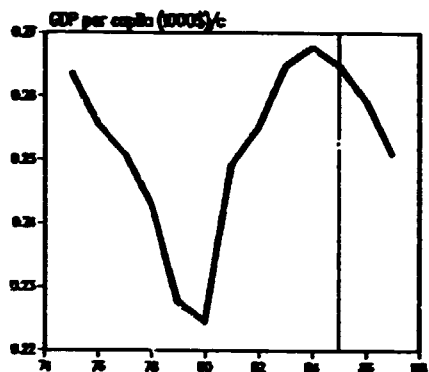
Industrial production index (1975=100)



Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

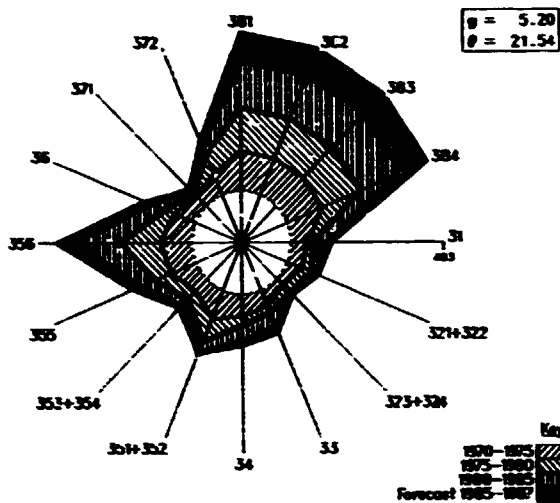


	1975	1980	1983
GDP: /na (in million dollars)	3047 /c	2944 /c	3834 /c
Per capita (in dollars)	264 /c	225 /c	265 /c
Manufacturing share /na (%)	6.3 /c	5.0 /c	3.8 /c
MANUFACTURING:			
Value added /na (in million dollars)	193 /c	147 /c	146 /c
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change B (in degrees)
in percentage of B in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
389 Other manufacturing industries

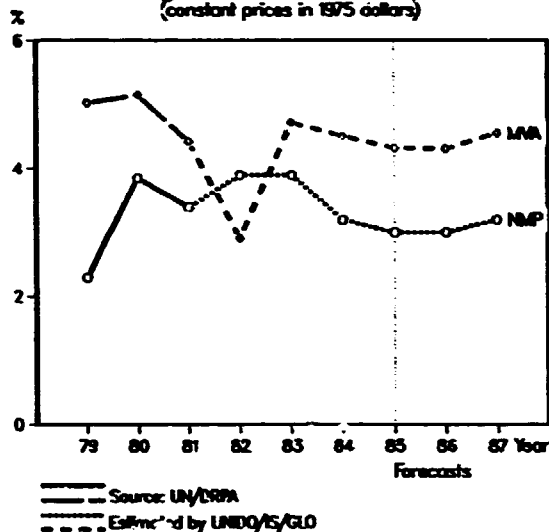


For source, footnotes and comments see "Technical notes" above.

Industrial structural change
(Index of value added: 1970=100)

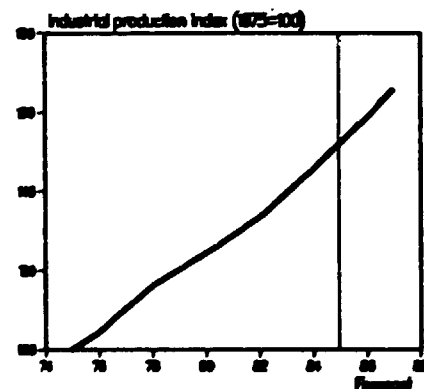
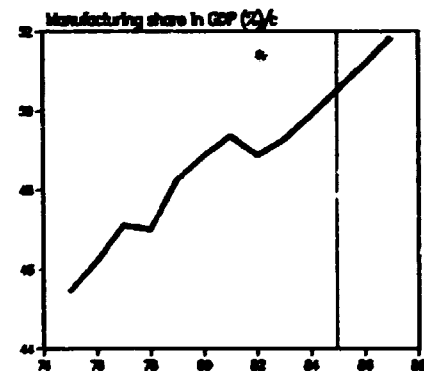
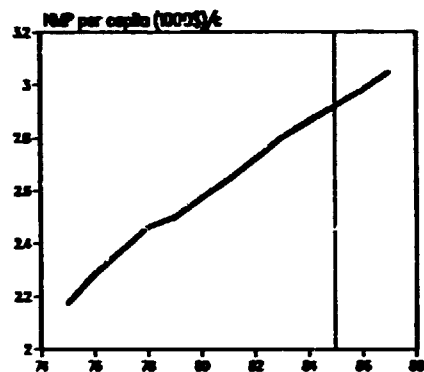


Annual growth rates of NMP and MVA
(constant prices in 1975 dollars)

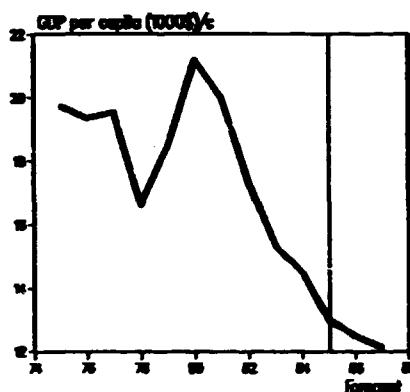


	1975	1980	1983
NMP: /na (in million dollars)	552738 /c	683539 /c	762847 /c
Per capita (in dollars)	2172 /c	2574 /c	2789 /c
Manufacturing share /na (%)	45.5 /c	48.9 /c	49.3 /c
MANUFACTURING:			
Value added /na (in million dollars)	251227 /c	334021 /c	375883 /c
Value added (in million dollars)	...	...	...
Industrial production index	100	125	139
Gross output (in million dollars)	634000	834091	855353
Employment (in thousands)	29596	31464	32035
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	...	...	...
Wages and salaries (%)	...	...	...
Operating surplus (%)	...	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	...	...	...
Value added / worker	...	...	...
Average wage	...	...	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	1.73	1.67	1.10
in percentage of θ in 1970-1975	101	97	64
Growth rate / structural change	4.50	2.11	3.98
Degree of specialization	18.3	18.1	18.7
-VALUE ADDED: (in million dollars)			
311 Food products	...	...	...
313 Beverages	...	...	...
314 Tobacco products	...	...	...
321 Textiles	...	...	...
322 Wearing apparel	...	...	...
323 Leather and fur products	...	...	...
324 Footwear	...	...	...
331 Wood and wood products	...	...	...
332 Furniture and fixtures	...	...	...
41 Paper and paper products	...	...	...
342 Printing and publishing	...	...	...
351 Industrial chemicals	...	...	...
352 Other chemical products	...	...	...
353 Petroleum refineries	...	...	...
354 Misc. petroleum and coal products	...	...	...
355 Rubber products	...	...	...
356 Plastic products	...	...	...
361 Pottery, china and earthenware	...	...	...
362 Glass and glass products	...	...	...
369 Other non-metal mineral products	...	...	...
371 Iron and steel	...	...	...
372 Non-ferrous metals	...	...	...
381 Metal products	...	...	...
382 Non-electrical machinery	...	...	...
383 Electrical machinery	...	...	...
384 Transport equipment	...	...	...
385 Professional and scientific equipment	...	...	...
389 Other manufacturing industries	...	...	...

For source, footnotes and comments see "Technical notes" above.

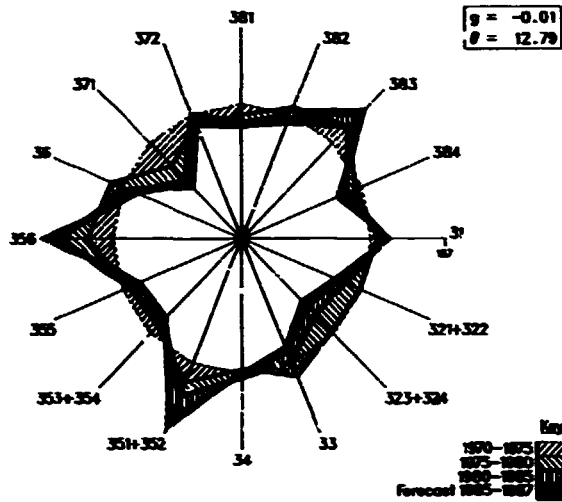


	1975	1980	1983
GDP: /na (in million dollars)	9972 /c	20776 /c	18470 /c
Per capita (in dollars)	19746 /c	21200 /c	15315 /c
Manufacturing share /na (%)
MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
368 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
389 Other manufacturing industries

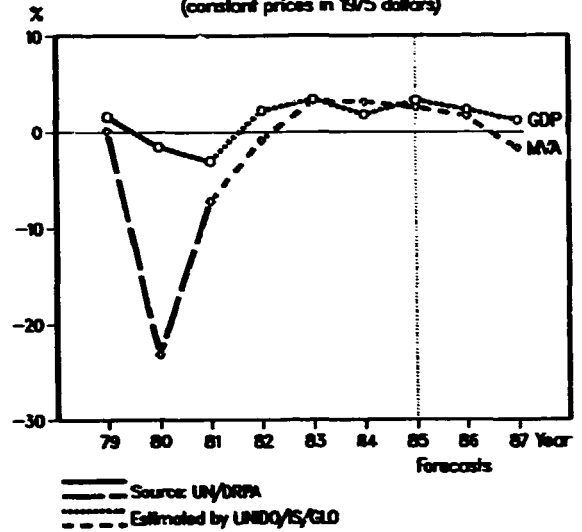


For source, footnotes and comments see "Technical notes" above.

Industrial structural change
(Index of value added: 1970=100)



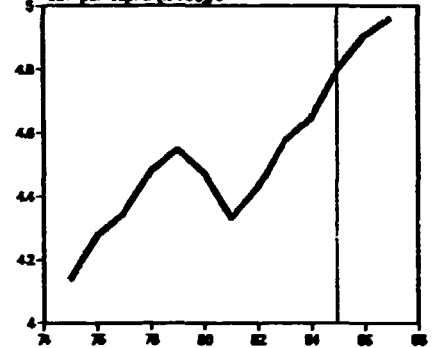
Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



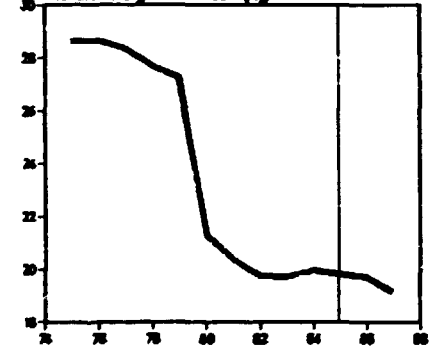
	1975	1980	1983
GDP: /na (in million dollars)	232622 /c	251730 /c	257934 /c
Per capita (in dollars)	4138 /c	4470 /c	4575 /c
Manufacturing share /na (%)	28.6 /c	21.3 /c	19.7 /c
MANUFACTURING:			
Value added /na (in million dollars)	66636 /c	53618 /c	50874 /c
Value added (in million dollars)	82067	163791	...
Industrial production index	100	96	92
Gross output (in million dollars)	204578	420814	...
Employment (in thousands)	7394	6462	5303
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	60	61	...
wages and salaries (%)	21	19	...
Operating surplus (%)	20	20	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	27668	65121	...
Value added / worker	11999	25347	...
Average wage	5689	12371	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	2.74	3.40	1.48
in percentage of θ in 1970-1975	115	143	62
Growth rate / structural change	-2.22	-2.32	1.85
Degree of specialization	11.5	11.4	11.7
-VALUE ADDED: (in million dollars)			
311 Food products	7067	14744	...
313 Beverages	2644	5419	...
314 Tobacco products	889	1814	...
321 Textiles	3889	5419	...
322 Wearing apparel	1844	3395	...
323 Leather and fur products	356	558	...
324 Footwear	600	1093	...
331 Wood and wood products	1267	2349	...
332 Furniture and fixtures	1288	2558	...
341 Paper and paper products	2400	4860	...
342 Printing and publishing	3978	9814	...
351 Industrial chemicals	4511	8223	...
352 Other chemical products	2956	7512	...
353 Petroleum refineries	1978	4512	...
354 Misc. petroleum and coal products	311	721	...
355 Rubber products	1406	2349	...
356 Plastic products	1089	3698	...
361 Pottery, china and earthenware	444	877	...
362 Glass and glass products	778	1442	...
369 Other non-metal mineral products	2378	5688	...
371 Iron and steel	4244	5880	...
372 Non-ferrous metals	1267	2581	...
381 Metal products	6123	10140	...
382 Non-electrical machinery	9978	21326	...
383 Electrical machinery	6778	15209	...
384 Transport equipment	8667	17512	...
385 Professional and scientific equipment	1533	2209	...
389 Other manufacturing industries	1000	1791	...

For source, footnotes and comments see "Technical notes" above.

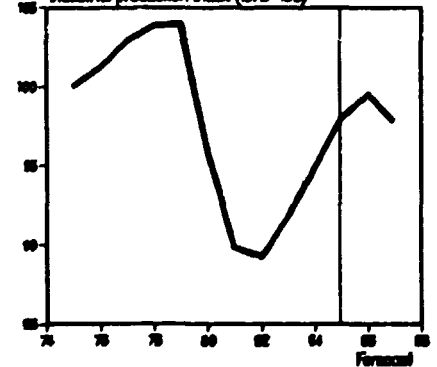
GDP per capita (1000)£



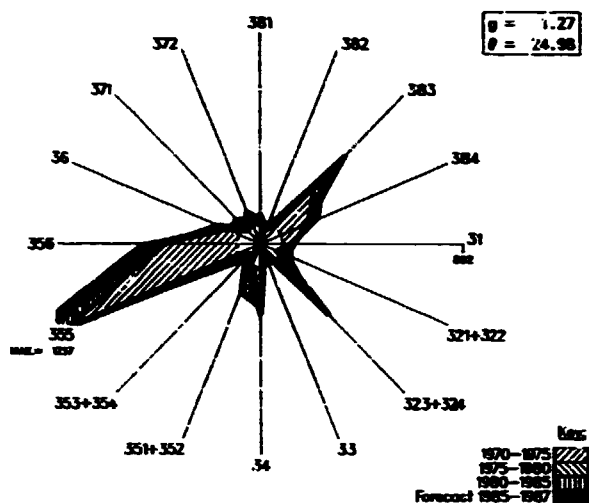
Manufacturing share in GDP (%)



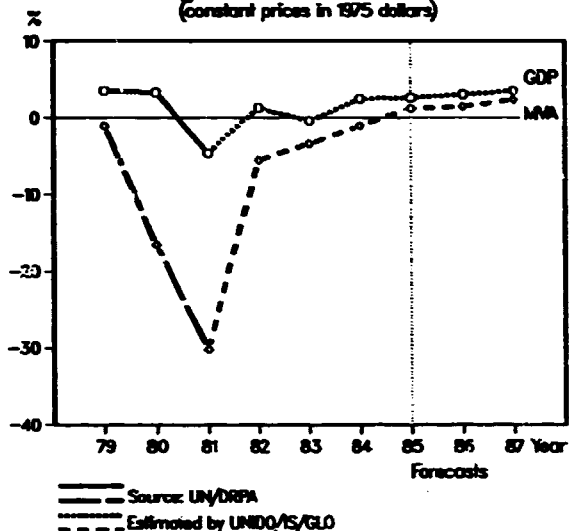
Industrial production index (1975=100)



Industrial structural change
(Index of value added: 1970=100)



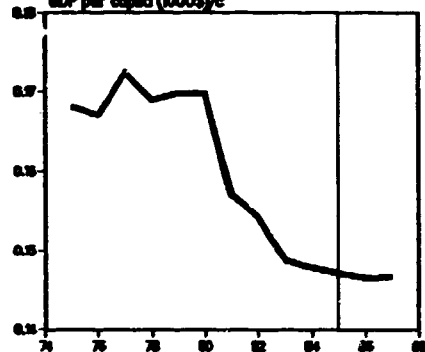
Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



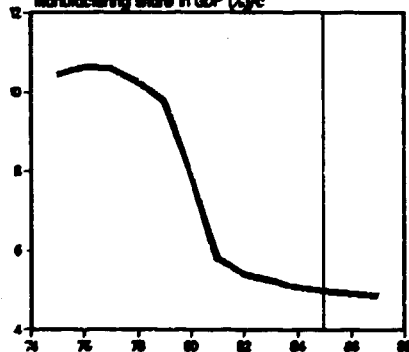
	1975	1980	1983
GDP: /na (in million dollars)	2574 /c	3155 /c	3038 /c
Per capita (in dollars)	168 /c	170 /c	149 /c
Manufacturing share /na (%)	10.4 /c	7.9 /c	5.2 /c
MANUFACTURING:			
Value added /na (in million dollars):	269 /c	250 /c	159 /c
Value added (in million dollars)	165	368	...
Industrial production index	100	92	82
Gross output (in million dollars)	...	1160	...
Employment (in thousands)	...	102	...
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	...	68	...
Wages and salaries (%)	...	11	...
Operating surplus (%)	...	21	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	...	11338	...
Value added / worker	...	3592	...
Average wage	...	1266	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	10.64	5.13	1.80
in percentage of θ in 1970-1975	133	64	23
Growth rate / structural change	1.10	-1.46	-1.78
Degree of specialization	16.3	15.7	12.5
-VALUE ADDED: (in million dollars)			
311 Food products	33	69	...
313 Beverages	9	13	...
314 Tobacco products	12	12	...
321 Textiles	29	82	...
322 Wearing apparel	3	13	...
323 Leather and fur products	3	7	...
324 Footwear	3	9	...
331 Wood and wood products	3	10	...
332 Furniture and fixtures	2	4	...
341 Paper and paper products	2	5	...
342 Printing and publishing	9	12	...
351 Industrial chemicals	4	15	...
352 Other chemical products	5	9	...
353 Petroleum refineries	8	14	...
354 Misc. petroleum and coal products	-	-	...
355 Rubber products	6	10	...
356 Plastic products	4	6	...
361 Pottery, china and earthenware	-	-	...
362 Glass and glass products	-	-	...
369 Other non-metal mineral products	5	15	...
371 Iron and steel	5 a	9 a	...
372 Non-ferrous metals	- a	- a	...
381 Metal products	5	18	...
382 Non-electrical machinery	3	6	...
383 Electrical machinery	3	5	...
384 Transport equipment	6	21	...
385 Professional and scientific equipment	-	-	...
389 Other manufacturing industries	2	2	...

For source, footnotes and comments see "Technical notes" above.

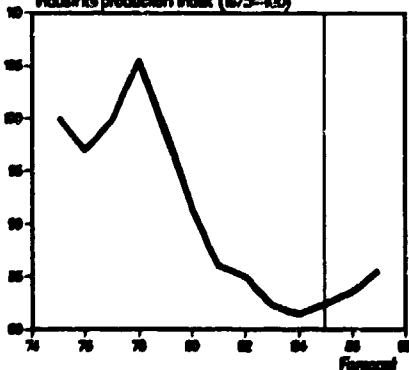
GDP per capita (000\$/c)



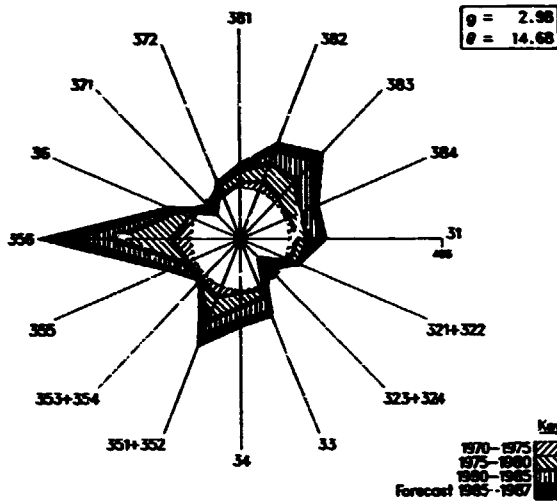
Manufacturing share in GDP (%)c



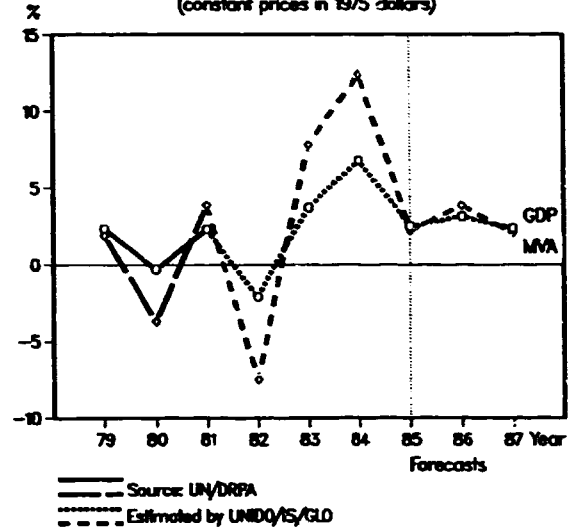
Industrial production index (1975=100)



Industrial structural change
(Index of value added: 1970=100)



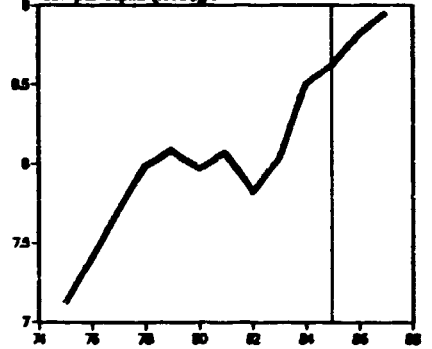
Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



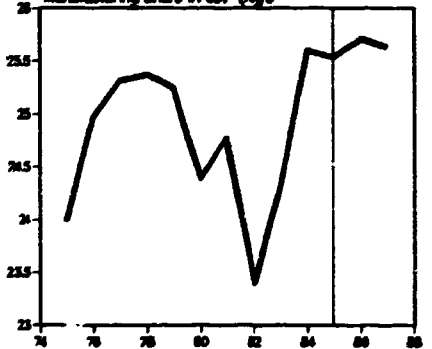
	1975	1980	1983
GDP: /na (in million dollars)	1538698 /c	1814586 /c	1884555 /c
Per capita (in dollars)	7125 /c	7968 /c	8035 /c
Manufacturing share /na (%)	24.0 /c	24.4 /c	24.3 /c
MANUFACTURING:			
Value added /na (in million dollars)	369056 /c	442691 /c	458479 /c
Value added (in million dollars)	440770	769900	...
Industrial production index	100	124	123
Gross output (in million dollars)	1036100	1857100	...
Employment (in thousands)	17108	19210	20385
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	57	59	...
Wages and salaries (%)	18	17	...
Operating surplus (%)	24	24	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	60563	96674	...
Value added / worker	25764	40078	...
Average wage	11096	16406	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	3.49	4.04	2.95
in percentage of θ in 1970-1975	132	153	112
Growth rate / structural change	-2.99	-1.46	2.58
Degree of specialization	11.4	11.7	11.5
-VALUE ADDED: (in million dollars)			
311 Food products	41090	63460	...
313 Beverages	7010	11810	...
314 Tobacco products	3720	6160	...
321 Textiles	14720	23030	...
322 Wearing apparel	12350	19780	...
323 Leather and fur products	1230	1850	...
324 Footwear	1900	2950	...
331 Wood and wood products	7710	12970	...
332 Furniture and fixtures	5270	9840	...
341 Paper and paper products	17940	29790	...
342 Printing and publishing	24640	44390	...
351 Industrial chemicals	24790	38920	...
352 Other chemical products	21010	35530	...
353 Petroleum refineries	8930	23010	...
354 Misc. petroleum and coal products	1570	2670	...
355 Rubber products	6240	8030	...
356 Plastic products	7360	14540	...
361 Pottery, china and earthenware	730	1210	...
362 Glass and glass products	4250	6470	...
369 Other non-metal mineral products	9870	16200	...
371 Iron and steel	21670	30780	...
372 Non-ferrous metals	7470	14340	...
381 Metal products	30680	53180	...
382 Non-electrical machinery	52850	102760	...
383 Electrical machinery	35840	...	...
384 Transport equipment	48650	...	...
385 Professional and scientific equipment	14160	...	...
390 Other manufacturing industries	7120	12...	...

For source, footnotes and comments see "Technical notes" above.

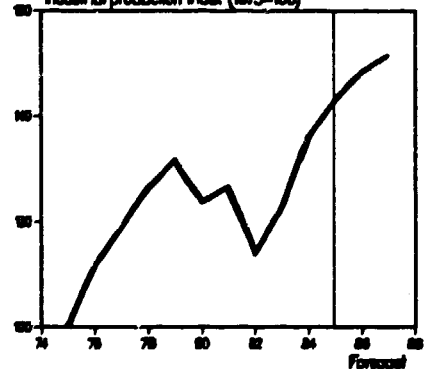
GDP per capita (1000\$)t



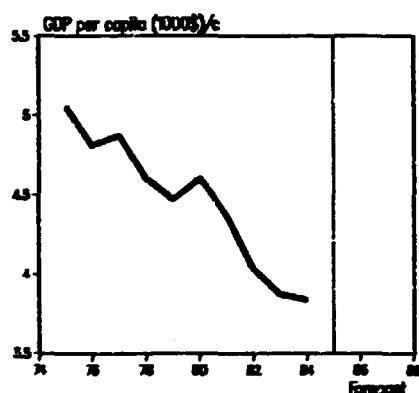
Manufacturing share in GDP (%)t



Industrial production index (1975=100)

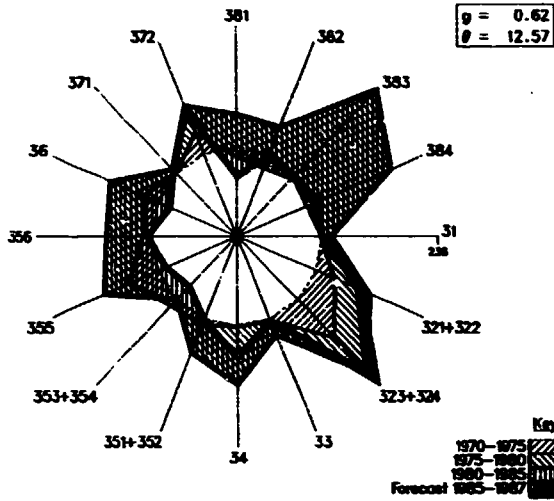


	1975	1980	1983
GDP: /na (in million dollars)	480 /c	451 /c	403 /c
Per capita (in dollars)	5053 /c	4602 /c	3871 /c
Manufacturing share /na (%)
MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change B (in degrees)
in percentage of B in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
390 Other manufacturing industries

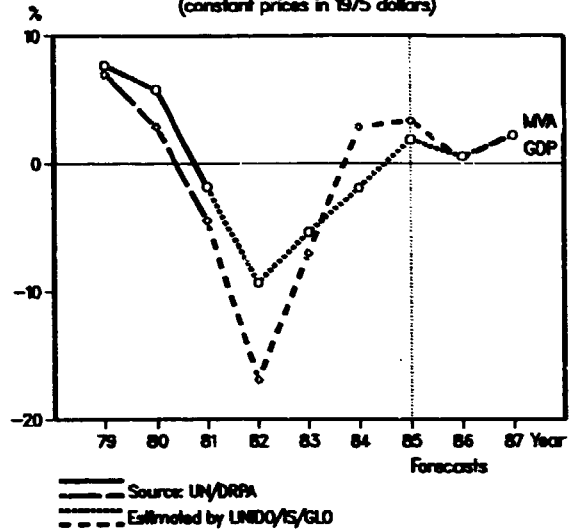


For source, footnotes and comments see "Technical notes" above.

Industrial structural change
(Index of value added: 1970=100)



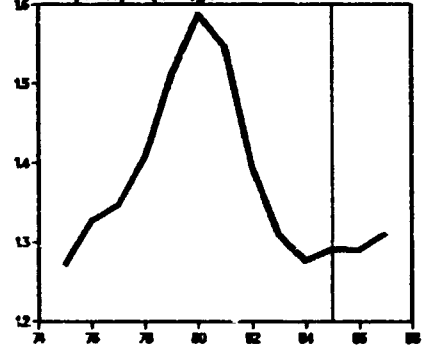
Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



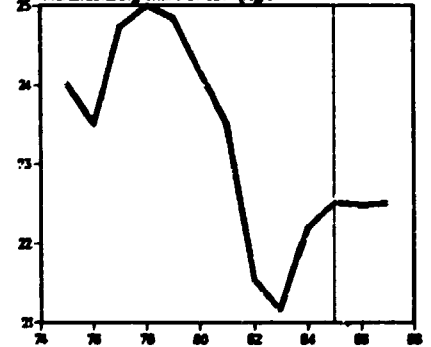
	1975	1980	1983
GDP: /na (in million dollars)	3597 /c	4618 /c	3891 /c
Per capita (in dollars)	1271 /c	1587 /c	1310 /c
Manufacturing share /na (%)	24.0 /c	24.2 /c	21.2 /c
MANUFACTURING:			
Value added /na (in million dollars)	864 /c	1116 /c	824 /c
Value added (in million dollars)	1058	2181	1168
Industrial production index	100	131	94
Gross output (in million dollars)	2659	5599	3090
Employment (in thousands)	202	161	116
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	...	61	62
wages and salaries (%)	...	13	11
Operating surplus (%)	...	26	27
-PRODUCTIVITY: (in dollars)			
Gross output / worker	...	34829	26228
Value added / worker	...	13567	9917
Average wage	...	4462	2847
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	4.10	4.55	8.19
in percentage of θ in 1970-1975	90	100	181
Growth rate / structural change	0.92	0.29	-0.85
Degree of specialization	13.3	11.7	15.0
-VALUE ADDED: (in million dollars)			
311 Food products	196	278	354
313 Beverages	89	176	83
314 Tobacco products	60	152	79
321 Textiles	138	185	94
322 Wearing apparel	44	97	35
323 Leather and fur products	42	52	62
324 Footwear	20	31	15
331 wood and wood products	12	23	10
332 Furniture and fixtures	7	12	2
341 Paper and paper products	27	51	34
342 Printing and publishing	24	62	19
351 Industrial chemicals	22	34	21
352 Other chemical products	44	127	91
353 Petroleum refineries	155	329	55
354 Misc. petroleum and coal products	2	3	2
355 Rubber products	28	68	27
356 Plastic products	8	40	22
361 Pottery, china and earthenware	6	23	11
362 Glass and glass products	12	23	7
369 Other non-metal mineral products	20	70	34
371 Iron and steel	5	16	13
372 Non-ferrous metals	2	5	2
381 Metal products	30	89	30
382 Non-electrical machinery	15	27	8
383 Electrical machinery	28	56	30
384 Transport equipment	12	132	14
385 Professional and scientific equipment	2	3	1
389 Other manufacturing industries	8	15	2

For source, footnotes and comments see "Technical notes" above.

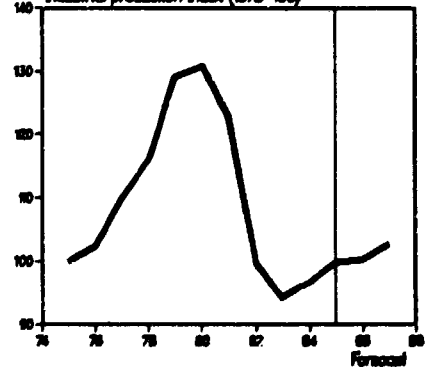
GDP per capita (1000\$)/c



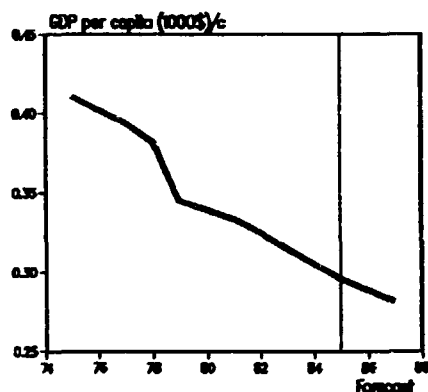
Manufacturing share in GDP (%)c



Industrial production index (1975=100)

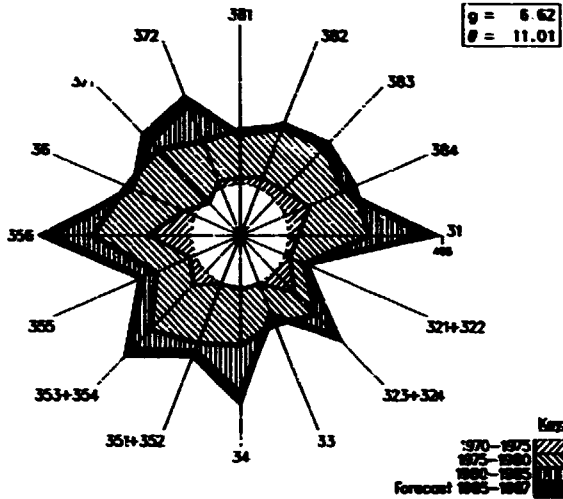


	1975	1980	1983
GDP: /na (in million dollars)	39 /c	39 /c	39 /c
Per capita (in dollars)	411 /c	339 /c	315 /c
Manufacturing share /na (%)
MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)
Employment (in thousands)
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change B (in degrees)
in percentage of B in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
314 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
382 Non-electrical machinery
393 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
390 Other manufacturing industries

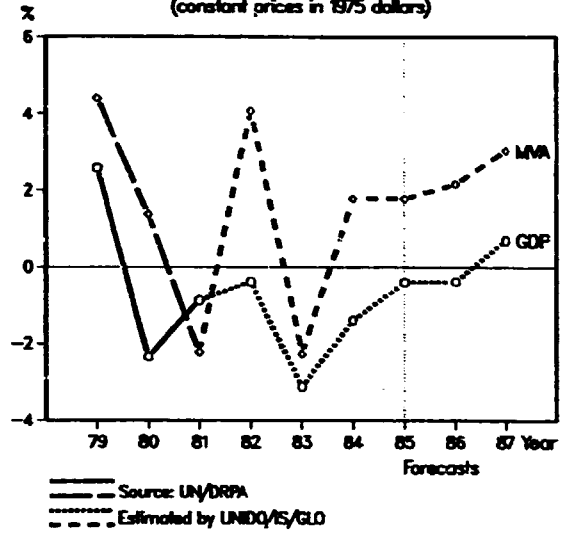


For source, footnotes and comments see "Technical notes" above.

Industrial structural change
(Index of value added: 1970=100)



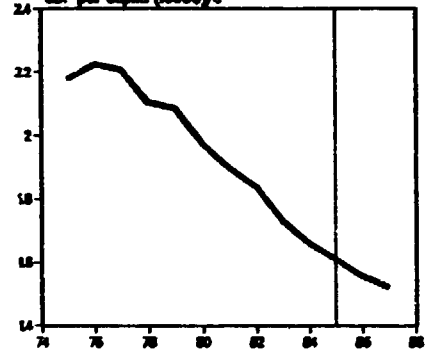
Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)



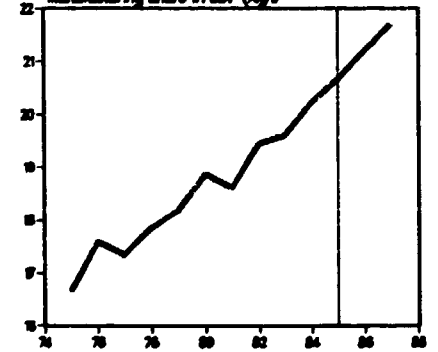
	1975	1980	1983
GDP: /na (in million dollars)	27603 /c	29645 /c	28360 /c
Per capita (in dollars)	2179 /c	1974 /c	1730 /c
Manufacturing share /na (%)	16.7 /c	16.9 /c	19.6 /c
MANUFACTURING:			
Value added /na (in million dollars)	4597 /c	5593 /c	5561 /c
Value added (in million dollars)	5795	14172	...
Industrial production index	100	195	228
Gross output (in million dollars)	12587	29407	...
Employment (in thousands)	330	477	509
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	54	52	...
Wages and salaries (%)	12	13	...
Operating surplus (%)	34	35	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	38201	61640	...
Value added / worker	17588	29705	...
Average wage	4767	7932	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	5.13	3.00	3.59
in percentage of θ in 1970-1975	112	66	79
Growth rate / structural change	-0.66	5.23	-0.89
Degree of specialization	21.2	21.9	23.3
-VALUE ADDED: (in million dollars)			
311 Food products	722	1410	...
313 Beverages	374	992	...
314 Tobacco products	105	331	...
321 Textiles	345	483	...
322 Wearing apparel	188	330	...
323 Leather and fur products	30	55	...
324 Footwear	56	147	...
331 Wood and wood products	62	88	...
332 Furniture and fixtures	83	167	...
341 Paper and paper products	184	355	...
342 Printing and publishing	147	364	...
351 Industrial chemicals	112	275	...
352 Other chemical products	379	861	...
353 Petroleum refineries	1302	4417	...
354 Misc. petroleum and coal products	12	24	...
355 Rubber products	109	141	...
356 Plastic products	138	379	...
361 Pottery, china and earthenware	15	44	...
362 Glass and glass products	67	136	...
369 Other non-metal mineral products	171	441	...
371 Iron and steel	339	832	...
372 Non-ferrous metals	51	198	...
381 Metal products	238	601	...
382 Non-electrical machinery	81	217	...
383 Electrical machinery	138	291	...
384 Transport equipment	305	652	...
385 Professional and scientific equipment	8	34	...
389 Other manufacturing industries	25	88	...

For source, footnotes and comments see "Technical notes" above.

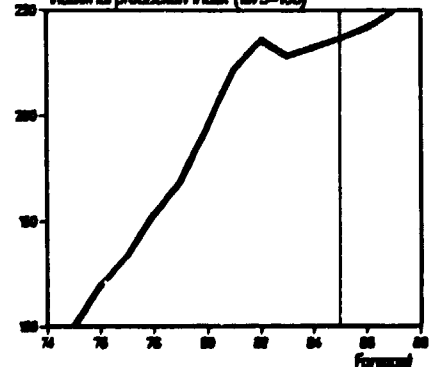
GDP per capita (000\$)/c



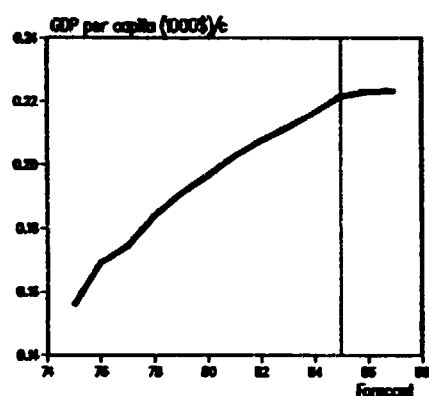
Manufacturing share in GDP (%)



Industrial production index (1975=100)

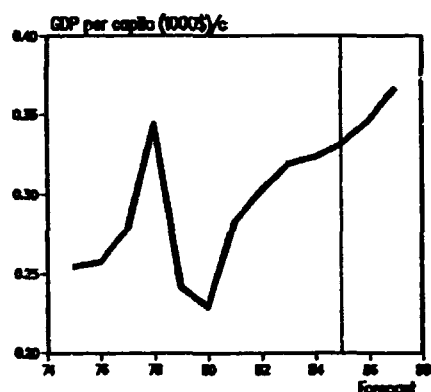


	1975	1980	1983
GDP: /na (in million dollars)	828 /c	1177 /c	1373 /c
Per capita (in dollars)	156 /c	197 /c	212 /c
Manufacturing share /na (%)
MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)	...	97	...
Industrial production index
Gross output (in million dollars)	...	189	...
Employment (in thousands)	...	6	6
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	...	48	...
Wages and salaries (%)	...	13	...
Operating surplus (%)	...	38	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	...	31668	...
Value added / worker	...	16322	...
Average wage	...	4196	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products	...	14	...
313 Beverages	...	36	...
314 Tobacco products	...	1	...
321 Textiles	...	7	...
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products	...	1	...
332 Furniture and fixtures
341 Paper and paper products	...	1	...
342 Printing and publishing
351 Industrial chemicals	...	10	...
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
369 Other non-metal mineral products	...	14	...
371 Iron and steel
372 Non-ferrous metals
381 Metal products	...	13	...
382 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
390 Other manufacturing industries	...	1	...



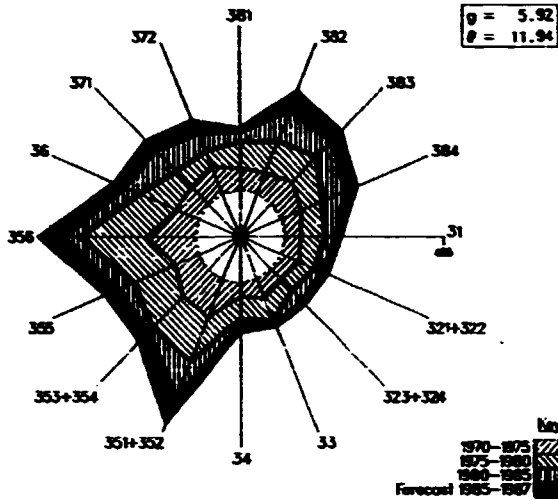
For source, footnotes and comments see "Technical notes" above.

	1975	1980	1983
GDP: /na (in million dollars)	430 /c	451 /c	689 /c
Per capita (in dollars)	254 /c	229 /c	319 /c
Manufacturing share /na (%)
MANUFACTURING:			
Value added /na (in million dollars)
Value added (in million dollars)
Industrial production index
Gross output (in million dollars)	154	...	...
Employment (in thousands)	6	...	...
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)
Wages and salaries (%)
Operating surplus (%)
-PRODUCTIVITY: (in dollars)			
Gross output / worker
Value added / worker
Average wage
-STRUCTURAL INDICES:			
Structural change θ (in degrees)
in percentage of θ in 1970-1975
Growth rate / structural change
Degree of specialization
-VALUE ADDED: (in million dollars)			
311 Food products
313 Beverages
214 Tobacco products
321 Textiles
322 Wearing apparel
323 Leather and fur products
324 Footwear
331 Wood and wood products
332 Furniture and fixtures
341 Paper and paper products
342 Printing and publishing
351 Industrial chemicals
352 Other chemical products
353 Petroleum refineries
354 Misc. petroleum and coal products
355 Rubber products
356 Plastic products
361 Pottery, china and earthenware
362 Glass and glass products
366 Other non-metal mineral products
371 Iron and steel
372 Non-ferrous metals
381 Metal products
392 Non-electrical machinery
383 Electrical machinery
384 Transport equipment
385 Professional and scientific equipment
399 Other manufacturing industries

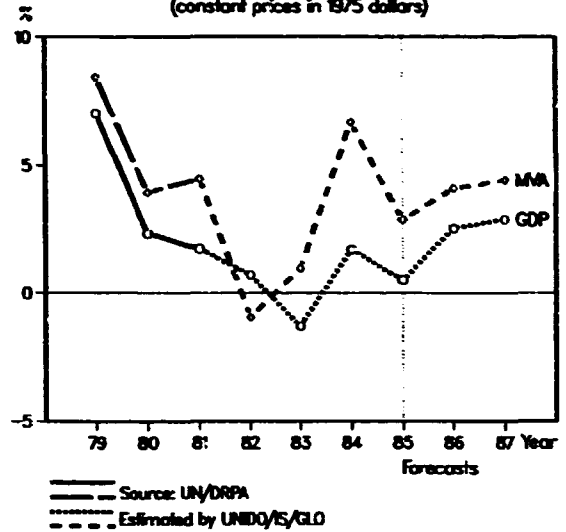


For source, footnotes and comments see "Technical notes" above.

Industrial structural change (index of value added: 1970=100)



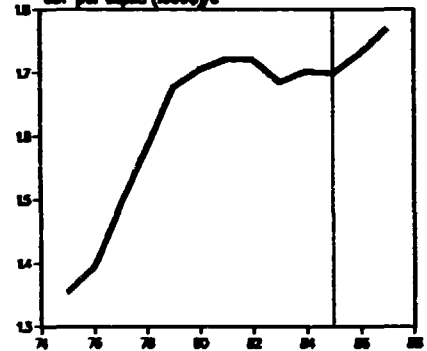
Annual growth rates of GDP and MVA (constant prices in 1975 dollars)



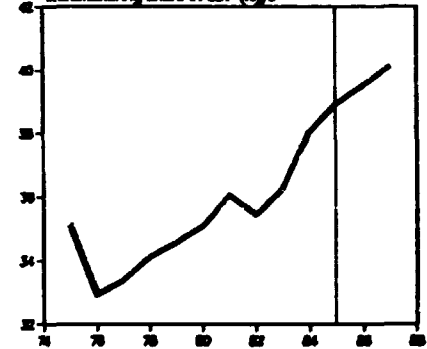
	1975	1980	1983
GDP: /na (in million dollars)	28931 /c	38013 /c	38436 /c
Per capita (in dollars)	1354 /c	1705 /c	1686 /c
Manufacturing share /na (%)	35.1 /c	35.1 /c	36.3 /c
MANUFACTURING:			
Value added /na (in million dollars)	10169 /c	13345 /c	13945 /c
Value added (in million dollars)	9441	21750	...
Industrial production index	100	139	150
Gross output (in million dollars)	32415	72629	...
Employment (in thousands)	1640	2106	2429
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	71	70	...
wages and salaries (%)	10	10	...
Operating surplus (%)	19	20	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	19751	34487	...
value added / worker	5756	10328	...
Average wage	2050	3546	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	2.63	1.77	2.52
in percentage of θ in 1970-1975	114	77	110
Growth rate / structural change	2.26	1.76	1.07
Degree of specialization	5.3	8.8	9.0
-VALUE ADDED: (in million dollars)			
311 Food products	920	1897	...
313 Beverages	245	459	...
314 Tobacco products	272	184	...
321 Textiles	854	1759	...
322 wearing apparel	351	903	...
323 Leather and fur products	108	226	...
324 Footwear	149	482	...
331 Wood and wood products	320	977	...
332 Furniture and fixtures	346	730	...
341 Paper and paper products	242	529	...
342 Printing and publishing	399	876	...
351 Industrial chemicals	272	694	...
352 Other chemical products	319	681	...
353 Petroleum refineries	189	454	...
354 Misc. petroleum and coal products	37	101	...
355 Rubber products	117	276	...
356 Plastic products	138	413	...
361 Pottery, china and earthenware	47	128	...
362 Glass and glass products	71	183	...
368 Other non-metal mineral products	409	906	...
371 Iron and steel	414	1221	...
372 Non-ferrous metals	288	480	...
381 Metal products	885	2105	...
382 Non-electrical machinery	489	1828	...
383 Electrical machinery	626	1800	...
384 Transport equipment	741	1441	...
385 Professional and scientific equipment	75	101	...
390 Other manufacturing industries	27	124	...

For source, footnotes and comments see "Technical notes" above.

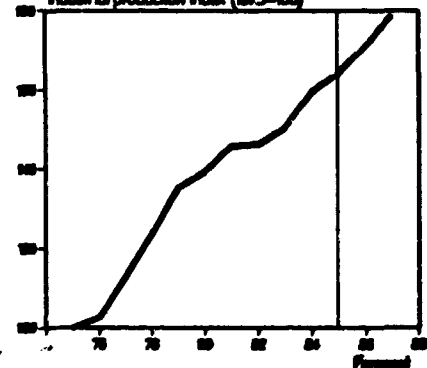
GDP per capita (1000\$/c)



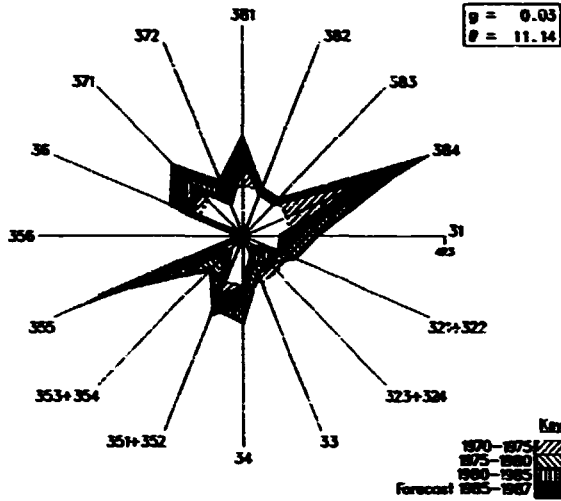
Manufacturing share in GDP (%)



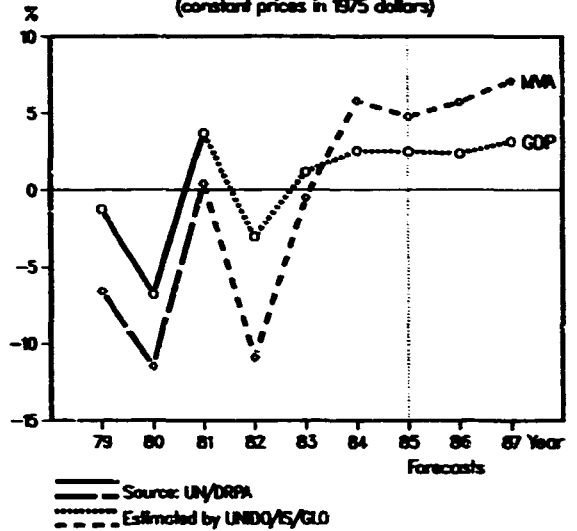
Industrial production index (1975=100)



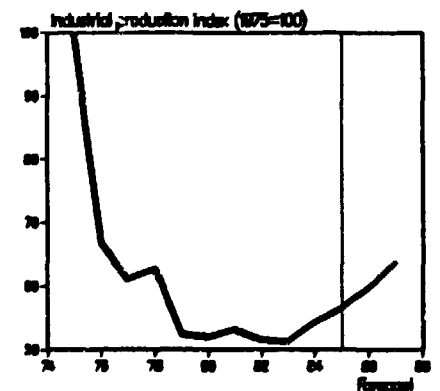
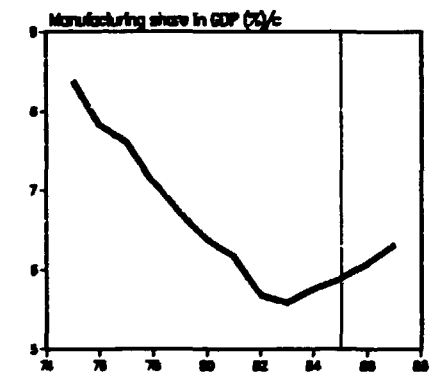
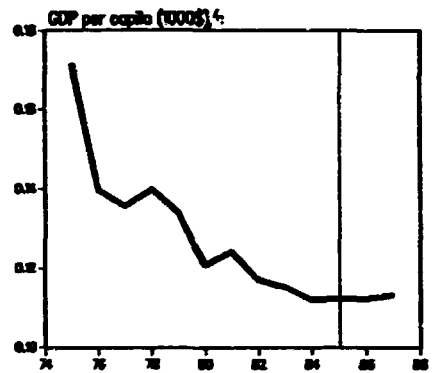
Industrial structural change
(Index of value added: 1970=100)



Annual growth rates of GDP and MVA
(constant prices in 1975 dollars)

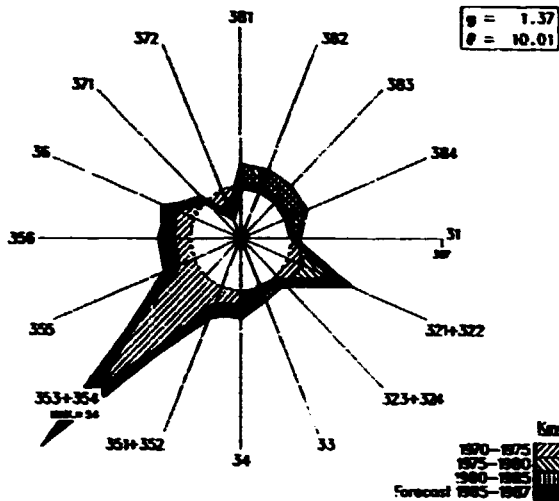


	1975	1980	1983
GDP: /na (in million dollars)	3874 /c	3190 /c	3247 /c
Per capita (in dollars)	172 /c	121 /c	115 /c
Manufacturing share /na (%)	8.4 /c	6.4 /c	5.6 /c
MANUFACTURING:			
Value added /na (in million dollars)	325 /c	204 /c	181 /c
Value added (in million dollars)	327	...	...
Industrial production index	100	52	51
Gross output (in million dollars)	...	...	...
Employment (in thousands)	...	...	...
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	...	...	...
Wages and salaries (%)	...	...	...
Operating surplus (%)	...	...	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	...	...	...
Value added / worker	...	...	...
Average wage	...	...	...
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	21.60	7.97	1.62
in percentage of θ in 1970-1975	163	60	12
Growth rate / structural change	0.58	-0.11	-0.35
Degree of specialization	26.8	16.8	18.9
-VALUE ADDED: (in million dollars)			
311 Food products	41	...	...
313 Beverages	70	...	...
314 Tobacco products	19	...	...
321 Textiles	21	...	...
322 Wearing apparel	14	...	...
323 Leather and fur products	1	...	...
324 Footwear	17	...	...
331 Wood and wood products	8	...	...
332 Furniture and fixtures	2	...	...
341 Paper and paper products	1	...	...
342 Printing and publishing	4	...	...
351 Industrial chemicals	25 a	...	...
352 Other chemical products	- a	...	...
353 Petroleum refineries	17 d	...	...
354 Misc. petroleum and coal products	- d	...	...
355 Rubber products	1	...	...
356 Plastic products	-	...	...
361 Pottery, china and earthenware	1	...	...
362 Glass and glass products	1	...	...
369 Other non-metal mineral products	8	...	...
371 Iron and steel	12 b	...	...
372 Non-ferrous metals	- b	...	...
381 Metal products	9	...	...
382 Non-electrical machinery	10	...	...
383 Electrical machinery	6	...	...
384 Transport equipment	10	...	...
385 Professional and scientific equipment	-	...	...
389 Other manufacturing industries	20	...	...

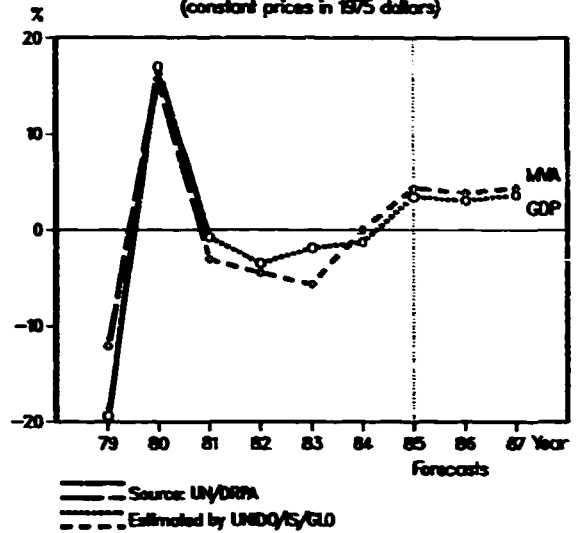


For source, footnotes and comments see "Technical notes" above.

Industrial structural change (Index of value added: 1970=100)



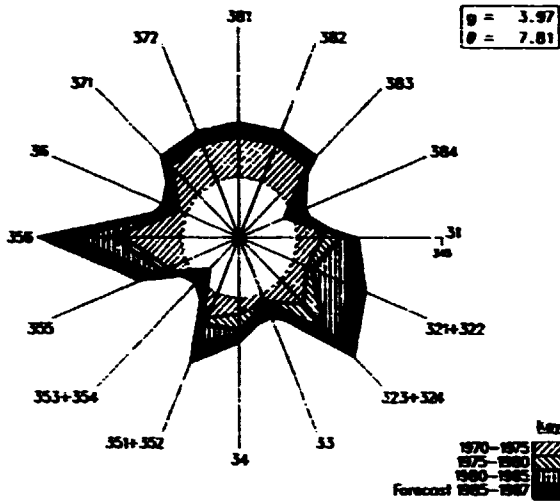
Annual growth rates of GDP and MVA (constant prices in 1975 dollars)



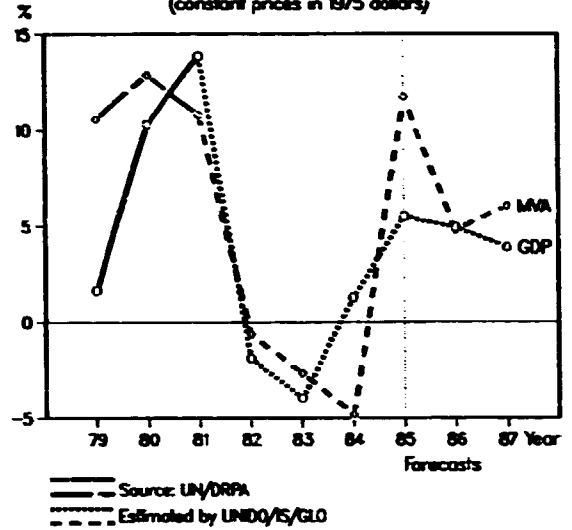
	1975	1980	1983
GDP: /na (in million dollars)	2460 /c	2379 /c	2234 /c
Per capita (in dollars)	494 /c	408 /c	358 /c
Manufacturing share /na (%)	.6.6 /c	17.3 /c	16.1 /c
MANUFACTURING:			
Value added /na (in million dollars)	409 /c	412 /c	360 /c
Value added (in million dollars)	483	780	...
Industrial production index	100	94	87
Gross output (in million dollars)	1089	1671	...
Employment (in thousands)	56	59	61
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	56	53	...
Wages and salaries (%)	13	11	...
Operating surplus (%)	31	35	...
-PRODUCTIVITY: (in dollars)			
Gross output / worker	19564	28427	...
Value added / worker	8685	13265	...
Average wage	2611	3261	...
-STRUCTURAL INDICES:			
Structural change B (in degrees)	3.15	3.13	3.24
in percentage of B in 1970-1975	114	113	117
Growth rate / structural change	-1.24	2.17	-1.60
Degree of specialization	17.5	16.6	18.1
-VALUE ADDED: (in million dollars)			
311 Food products	44	92	...
313 Beverages	121	193	...
314 Tobacco products	36	58	...
321 Textiles	15	51	...
322 Wearing apparel	23	34	...
323 Leather and fur products	1	3	...
324 Footwear	6	16	...
331 Wood and wood products	10	8	...
332 Furniture and fixtures	10	12	...
341 Paper and paper products	8	15	...
342 Printing and publishing	12	17	...
351 Industrial chemicals	15	22	...
352 Other chemical products	32	47	...
353 Petroleum refineries	11	9	...
354 Misc. petroleum and coal products	4	3	...
355 Rubber products	17	20	...
356 Plastic products	4	7	...
361 Pottery, china and earthenware	1	1	...
362 Glass and glass products	2	3	...
369 Other non-metal mineral products	21	33	...
371 Iron and steel	6	10	...
372 Non-ferrous metals	1	2	...
381 Metal products	35	50	...
382 Non-electrical machinery	12	18	...
383 Electrical machinery	10	26	...
384 Transport equipment	24	28	...
385 Professional and scientific equipment	-	-	...
389 Other manufacturing industries	2	2	...

For source, footnotes and comments see "Technical notes" above.

Industrial structural change (Index of value added: 1970=100)



Annual growth rates of GDP and MVA (constant prices in 1975 dollars)



	1975	1980	1983
GDP: /na (in million dollars)	3511 /c	3660 /c	392E /c
Per capita (in dollars)	572 /c	513 /c	507 /c
Manufacturing share /na (%)	25.0 /c	27.5 /c	27.4 /c
MANUFACTURING:			
Value added /na (in million dollars)	879 /c	1005 /c	1077 /c
Value added (in million dollars)	921	1480	---
Industrial production index	100	109	114
Gross output (in million dollars)	2300	3579	---
Employment (in thousands)	152	161	180
-PROFITABILITY: (in percent of gross output)			
Intermediate input (%)	60	59	---
Wages and salaries (%)	17	17	---
Operating surplus (%)	23	24	---
-PRODUCTIVITY: (in dollars)			
Gross output / worker	15131	22265	---
Value added / worker	6060	9205	---
Average wage	2563	3849	---
-STRUCTURAL INDICES:			
Structural change θ (in degrees)	2.09	2.54	3.21
in percentage of θ in 1970-1975	84	102	129
Growth rate / structural change	-0.68	5.86	-0.76
Degree of specialization	13.6	13.8	14.4
-VALUE ADDED: (in million dollars)			
311 Food products	95	193	---
313 Beverages	64	92	---
314 Tobacco products	29	55	---
321 Textiles	71	147	---
322 Wearing apparel	53	70	---
323 Leather and fur products	2	3	---
324 Footwear	20	34	---
331 Wood and wood products	14	38	---
332 Furniture and fixtures	16	26	---
341 Paper and paper products	26	30	---
342 Printing and publishing	37	59	---
351 Industrial chemicals	45	58	---
352 Other chemical products	49	80	---
353 Petroleum refineries	-	-	---
354 Misc. petroleum and coal products	3	7	---
355 Rubber products	19	30	---
356 Plastic products	16	25	---
361 Pottery, china and earthenware	1	3	---
362 Glass and glass products	3	9	---
369 Other non-metal mineral products	39	44	---
371 Iron and steel	118	187	---
372 Non-ferrous metals	11	17	---
381 Metal products	83	120	---
382 Non-electrical machinery	25	51	---
383 Electrical machinery	27	44	---
384 Transport equipment	34	38	---
385 Professional and scientific equipment	1	1	---
389 Other manufacturing industries	11	18	---

For source, footnotes and comments see "Technical notes" above.

