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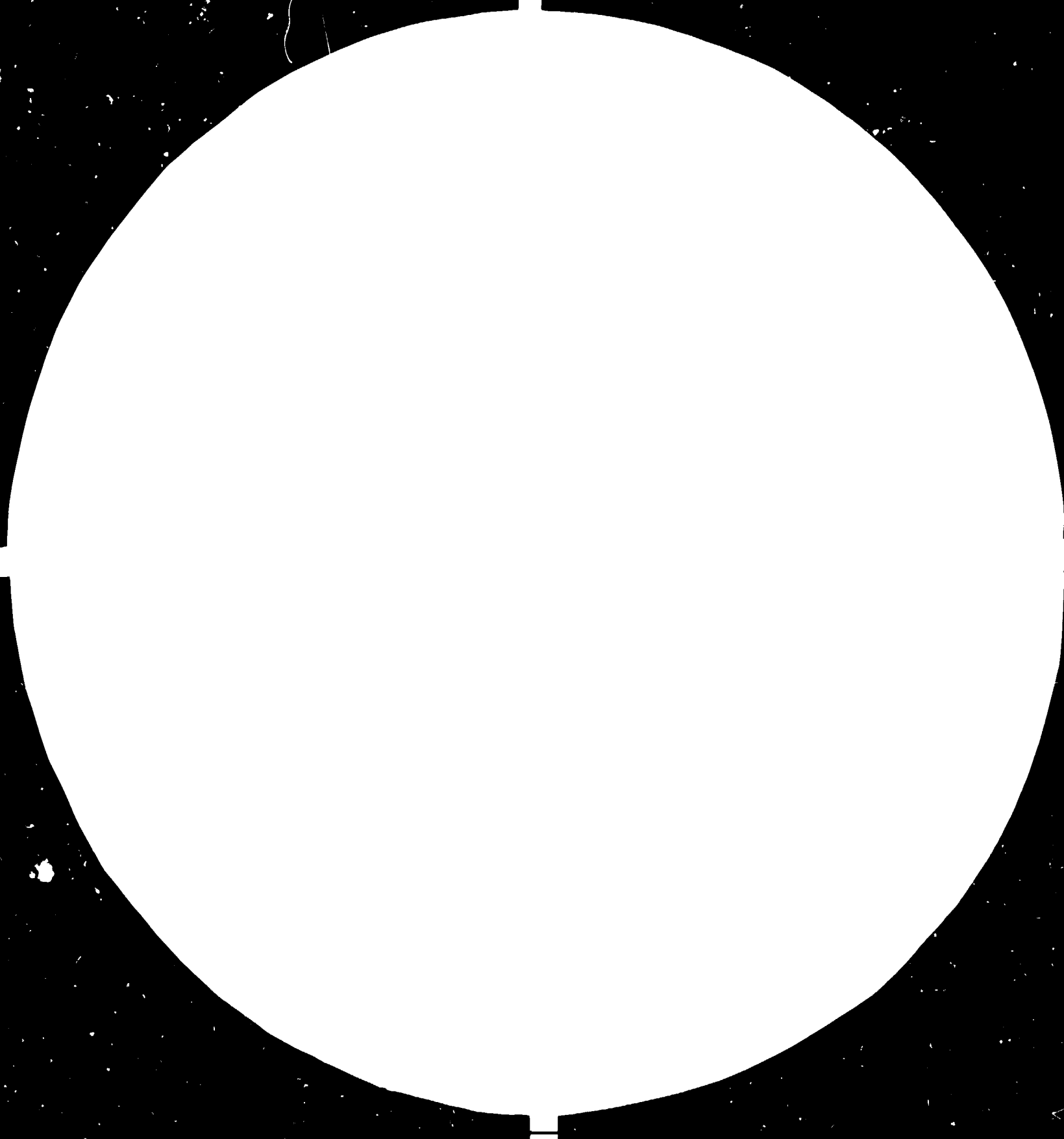

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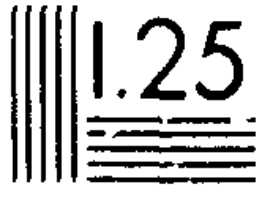
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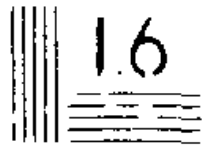
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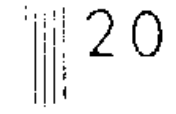
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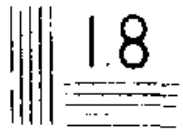
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PERU

EXPORT PERFORMANCE IN MANUFACTURED PRODUCTS 1975 - 1983

A CONSTANT MARKET SHARE ANALYSIS WITH REFERENCE TO THE RECENT DEVELOPMENTS

Prepared for

United Nations

Industrial Development Organization (UNIDO)

Regional and Country Studies Branch

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I. INTRODUCTORY REMARKS

In this study a Constant Market Share Analysis (CMS) is applied to identify various structural patterns of Peruvian trade performance. The investigation draws on exports to the world and to different country groupings on a 3-digit SITC level for the period 1975 - 1980. Relevant SITC-trade data in the detailed form used here have not yet been available for the years following 1980 [1]. Thus recent changes in Peruvian trade patterns have to be estimated separately.

CMS-analysis is a method by which past growth rates of exports can be splitted numerically, thus revealing a world trade component, a product composition component, a market composition component and a component representing the country's international competitive position. If X^1_{ij} and X^0_{ij} respectively are a country's total exports in periods (1) and (0) in products 'i' to countries 'j', r = growth rate of world exports (measured by selective countries' imports), r_i = world growth rate of the country's weighted own exports and r_{ij} = world growth rate of the country's regional exports, then

$$\sum_i \sum_j (X^{80}_{ij} - X^{75}_{ij}) =$$ (Peru's export growth [2] between 1975 - 1980)

(1) $$\sum_i \sum_j r \cdot X^{75}_{ij}$$ (part of Peruvian export growth which equals world export growth ≡ WORLD MARKET EFFECT)

(2) $$+ \sum_i \sum_j (r_i - r)\, X^{75}_{ij}$$ (part of Peruvian export growth due to the difference between world growth rate of Peruvian exports r_i and r ≡ PRODUCT COMPOSITION EFFECT)

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1) The data do not include the SITC group 0. Its consideration might cause some minor relative deviations which are not decisive for the investigation of industrial exports. It should be kept in mind, however, that the total values differ from the complete data set as usually employed.

2) In this analysis total change between 1975 - 1980 is investigated. Therefore the rates of change indicated should not be misunderstood as yearly growth rates.

(3) $+ \sum_i \sum_J (r_{ij} - r_i) X_{ij}^{75}$ (part of Peruvian export growth due to the difference between world growth rate of Peruvian regional exports r_{ij} and r_i ≡ MARKET COMPOSITION EFFECT)

(4) $+ \sum_i \sum_j (X_{ij}^{80} - X_{ij}^{75} - r_{ij} X_{ij}^{75})$ (difference between real Peruvian export growth and the growth components identified by effects (1) to (3). The COMPETITION EFFECT therefore represents the residual).

This kind of decomposition of trade data reveals detailed structural information hardly to be found elsewhere. It is intended to demonstrate that the outcome of the CMS calculations might be helpful in identifying those industrial activities that have been important to Peruvian economic development in the period under consideration.

There are a number of conceptional difficulties with CMS-analysis which have been discussed in detail elsewhere [1] and need not to be repeated in this paper. Most of them stress the problem of data aggregation and the fact that CMS-coefficiants do not show causal relationship. The value of CMS-analysis as an analytical tool, therefore, depends crucially on the careful interpretation of the findings.

Thus attention should be paid to the complex problem of the evaluation of the Peruvian economic (and political) situation and its international environment. This imposes three kinds of difficulties which are briefly to be mentioned in advance. The first of these points is of a more general nature applying to all investigations of this kind (but nevertheless it is often underestimated), the second and third are due to the given scope of the study and the present economic political conditions in Peru. Judgements on the second and the third problem are, therefore, especially important for the interpretation of the given Peruvian trade performance.

1. On a relatively high aggregation level empirical studies reveal quite astonishing similarities of production and trade structures for different

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1) See Banerji, Ranadev, The Export Performance of Less Developed Countries: A Constant Market Share Analysis, Weltwirtschaftliches Archiv, CIX, 1974, pp. 447-481.

developmental categories (as measured by GDP per capital), country size, resource base, and political strategy. They give rise to relatively strong theoretical reasoning about some typical development patterns which might serve as a stable indicator for national policy planning. The problem with all those studies for development planning is, however, that only a very rough specification of some key economic variables, excluding every individuality, can be employed if general conclusions are looked for. The more it is asked for specific criteria on disaggregated levels, the more we have to deal with the special circumstances of industries and their individual environment and the less we are entitled to rely on general economic theory for positive sector indication. This clearly indicates a limitation of this study, which cannot substitute for detailed investigation on specific industries. Instead it is intended to prepare the basis for subsequent field studies by trying to identify those industries that might be of special interest to future industrial policy.

2. The given scope of the study limits the recommendations to be drawn from this analysis in two ways. Firstly, emphasis is put here on industrial products, which are nearly identical with output in non-traditional production activities. While industrialization may be seen at the core of the development problem in many developing economies it should be taken in mind that this sector cannot be evolved without due respect to its relative importance within the whole economy. This rises the question, to what extent sectoral deformations, especially a relative discrimination of agriculture, might be part of actual Peruvian problems.

Of similar importance for a lasting take-off of any developing economy is the setting of the macro-economic conditions in such a way that rising output is met by a parallel movement of the overall absorption (including the external sector). In a depressed economy like the Peruvian in the mid-seventies and again today, foreign trade activities might be due to the task of a better employment of idle capacity (vent for surplus) rather than to a particular strong competitive position.

Secondly, decisions on development strategies virtually have to be seen as a long term problem. However, if actual internal conditions indicate fundamental disequilibria the implementation of a more favourable development strategy might be hindered by short-term obstacles. In this case a strategy

to overcome given bottlenecks might cause activities that would not necessariliy be part of the long-term policy package. In the case of Peru this means that possible developmental options of the industrial sector have to be judged on a given time horizon: while in the short and medium run growth promoting policies will have to rely predominantly on the existing range of industrial activities (which can be analyzed within the given set of trade and production data), in the long run the development of competitive production activities might be possible on a considerably amplified basis, if investments complementary to private activities could help

- to improve access to the East Andean region and part ot the Sierra
- to provide productive working facilities for the relatively educated and skilled labour force
- to open up already existing technical know how in Andean extraction activities to industrial exploitation.

It should be emphasized, however, that the development of this potential growth pool depends very much on the availability of foreign credits, which in turn are positively related to the actual economic performance of the country. Concentration on short and medium term problems and its successful management thus become the basis for any longer term development prospects.

3. Economic policies in the sixties and seventies had a considerable, though not always desired impact on the development of the Peruvian economy. While import substitution provided a relatively ample industrial basis in the sixties, its contribution to further successful development diminished (or even disappeared) at the end of the decade. After 1968 a substantial shift in investment activities from the private to the public sector took place. The resulting stagnation of private production activities accompanied by a nearly prohibitive export policy brought Peruvian non-traditional exports down to a negligible level in 1975.

Taking in mind this history, the export growth in the second half of the seventies, initiated by another drastical shift in economic policy, must be seen in the light of

- a base effect, caused by the correction of the highly overvalued exchange rate and the reduction of artificial trade barriers,

- this in turn made effective the already established system of selected export promotion (CERTEX), which had been modified in 1976 and 1978.

While the base effect might lead to a general over-estimation of the export growth rates between 1975 and 1980, it seems not to cause serious allocative problems. This is not the case with the highly arbitrary impact of the export promotion scheme CERTEX [1], whose most worrisome aspects can be characterized as follows:

(1) CERTEX provides tax refundments up to 30% on the fob export price with additional 10% for enterprises outside the Lima/Callao area (decentralization CERTEX) for qualified non-traditional products. The classification of non-traditional exports by 4 priority categories represents by itself a doubtful procedure from the allocative point of view. But the generous application of the qualification criteria since 1971 de facto produced a relatively homogeneous incentive structure: during the period under consideration about 70% of non-traditional exports received an average 25% CERTEX with relatively small deviations of individual rates.

Nevertheless, the highly selective allocational effect of CERTEX becomes obvious, if the effective rate of subsidization (subsidization as percentage of value added) is taken into consideration. This indicator of the relative incentive given to a particular industry varies without any change in the CERTEX refundment rate according to the relative value added content of the export product and to changes in relative input prices. Because of this problem two negative effects have to be registered: Firstly, effective incentive rates of several hundred percent in export activities with a low value added content and quickly rising input prices (raw materials) occurred. Secondly, as the effective subsidization rate decreases with every rise in the value added content of the final product (normally identical with the continued process of rising sophistication of output) the implementation of more advanced production processes is effectively hindered. This clearly counteracts the intentions of the export promotion policies.

(2) Different sectoral incentive policies might lead to unintended cumulating or neutralizing effects. A very clear example of such policy failure becomes evident when the 17% tax on raw material exports is seen in

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1) CERTEX itself is not the only one, though the most important of several export incentives.

connection with the CERTEX system. Adding a relatively unimportant refinement process to crude raw materials enabled producers to switch from taxed tu subsidized exports with an effective gain of up to 52% (30% CERTEX, 10% decentralization CERTEX and 17% avoided export tax) on the fob export price.

It can be summarized that for the 1975 - 1980 period the Peruvian export promotion system, though very much in line by intention with general development strategies, suffered from an unclear structural outcome and excessive effective incentives on particular items due to the refundment system and unforeseen cumulation effects. Furthermore the general level of subsidization seems to provide too high incentives and might therefore be counterproductive. Under these circumstances the export development must be seen as somewhat distorted by "subsidy seeking" activities, whose contribution to economic development by competitive exports is at least doubtful. Taking these general qualifications of the Peruvian situation into account one can proceed with the detailed discussion of the empirical results of the CMS analysis.

II. THE CONSTANT MARKET SHARE ANALYSIS

One of the most important changes implemented with the new development philosophy starting in 1975/76 can be seen in the opening up of the economy to the world market. Following this policy change Peruvian entrepreneurs increased external relations considerably during the second half of the decade. Even if the specific situation of the Peruvian economy, as briefly outlined above, is taken into consideration, the analysis of export growth rates should be helpful to provide some better understanding of the Peruvian position in the world market and its relation to national relative industrialization. The fact, that relative movements between sectors rather than absolute growth performances are asked for to identify sectors of potential interest to industrial policy makes CMS analysis an especially useful analytical tool for our purpose. The investigation will be carried out in 3 steps:

(1) General outline of Peruvian Export performance on a 2-digit (SITC-2) level and identification of sectors of special interest

(2) Extension to the SITC-3 level for selected industries and its regional distribution

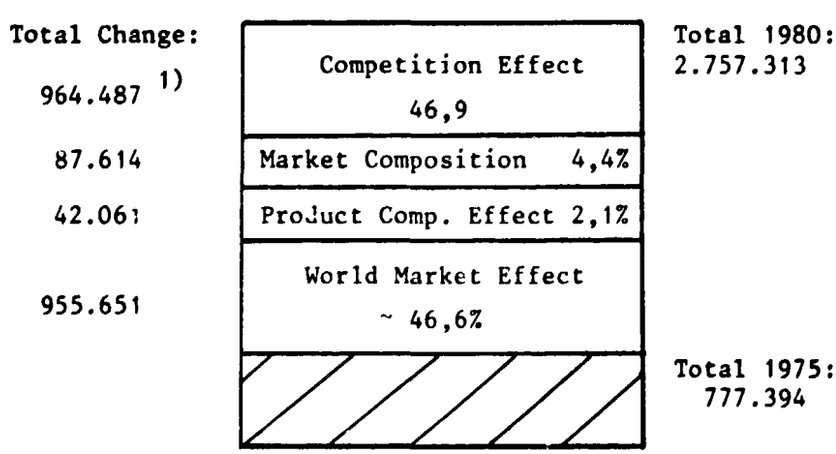
(3) Analysis of the Peruvian export structure with different countries

(1) General Outline of Peruvian Export Performance on a 2-digit (SITC-2) level and identification of sectors of special interest

In 1975 Peruvian exports amounted to 777.394 US $ in current prices and rose to 2.757.313 US $ in 1980, the total change being 1.979.919 US $. CMS-component splitting reveals that combined world market and competition effects count for about 93,5% of total change. Leaving aside the world market effect which is not so very much interesting here, the residual effect becomes prominent. Nearly all of the rise in exports which is not in line with the world export growth rate seems to have been taken place in response to changes in the country's overall competitive position. This finding may be explained by the fact that the export policy turn was accompanied by mayor exchange rate adjustments and the reduction of trade barriers. Additionally the dramatic rise in primary commodity quotations

Figure 1

Peru: Trade Performance 1975 - 1980



1) The sum of the components differs slightly from overall change.

since 1979 has stimulated Peruvian exports considerably. The only weak performance of the product composition effect appears to be indicating that typical Peruvian exports could not meet especially favourable conditions on the world market over the length of the 5 year period. This applies to the market composition effect in a very similar way: Peruvian products on average have not been placed in fast growing national markets.

To come to a more detailed picture of the trade panorama we have to go beyond the total values and ask which of the export sectors were the most successful contributors to total export growth? On the SITC-2 level identification of all sectors which added more than 5% to overall export growth reveals:

28	Metaliferous Ores and Metal Scrap	16,28%
33	Petroleum and Petro Products	32,92%
65	Textile Yarn, Fabrics etc.	7,51%
68	Non-Ferrous Metals	23,72%
89	Miscellaneous Manufactures	5,13%
		85,56%

Those 5 sub groups out of a total of 44 SITC-2 positions represent 85,56% of overall export growth. 3 of these (Textiles, Non-Ferrous Metals, and Misc. Manufactures), representing more than 35% of total export growth, include the majority of those non-traditional exports, that are at the core of discussion on adequate industrialization strategies in open developing economies. Therefore a closer look on these positions should be helpful. Metaliferous Ores (28) and Petroleum Products (33), though very important within the overall export strategy of Peru, do not belong directly to the industrial manufacturing sector relevant to this investigation. However, close links between raw material extraction and processing do exist in many cases, which only can be discussed meaningfully within the overall context. This justifies further investigation on SITC group 28.

Identifying critical sectors via relative growth contributions can only be seen as a very rough and incomplete indicator of export performance since the absolute participation of a certain sector does not reveal its growth potential: high percentage rates might be due to quantitatively important though slowly growing industries which might form definite development

obstacles. Before proceeding we have to identify, therefore, all those branches which show a relatively high growth potential, though, due to a relatively low value in 1975, do not yet deliver a quantitatively important contribution to the Peruvian export development. In Table 2 all SITC-2 subgroups with export values > 1.500 US $ in 1975 are listed by growth rates. Percentage changes between 1975 - 1980 range from -100% to +3.083%. The average export change has been 255% for the 5 year period, so that all SITC-2 subgroups with growth rates $\gtrless$ 255% will be called fast (slowly) growing.

The data also show a number of fast growing sectors which had virtually no quantitative importance in 1975. Nevertheless, their performance might indicate future growth sectors due to favourable production or sales conditions. If we add sectors having > 1.500 $ export value in 1980 and growing more than 1.000%, the following four groups of export sectors for further discussion can be arranged:

I. Important and fast growing export sectors:

- 33 Petroleum and Petroleum Products
- 65 Textiles
- 89 Miscellaneous Manufactures

II. Not (yet) important but fast growing sectors:

- 27 Crude Fertilizers and Crude Minerals
- 51 Chemical Elements
- 71 Non-electrical Machinery
- 72 Electrical Machinery, Apparatus and Appliances
- 84 Clothing

III. Quantitatively important, but slowly growing sectors

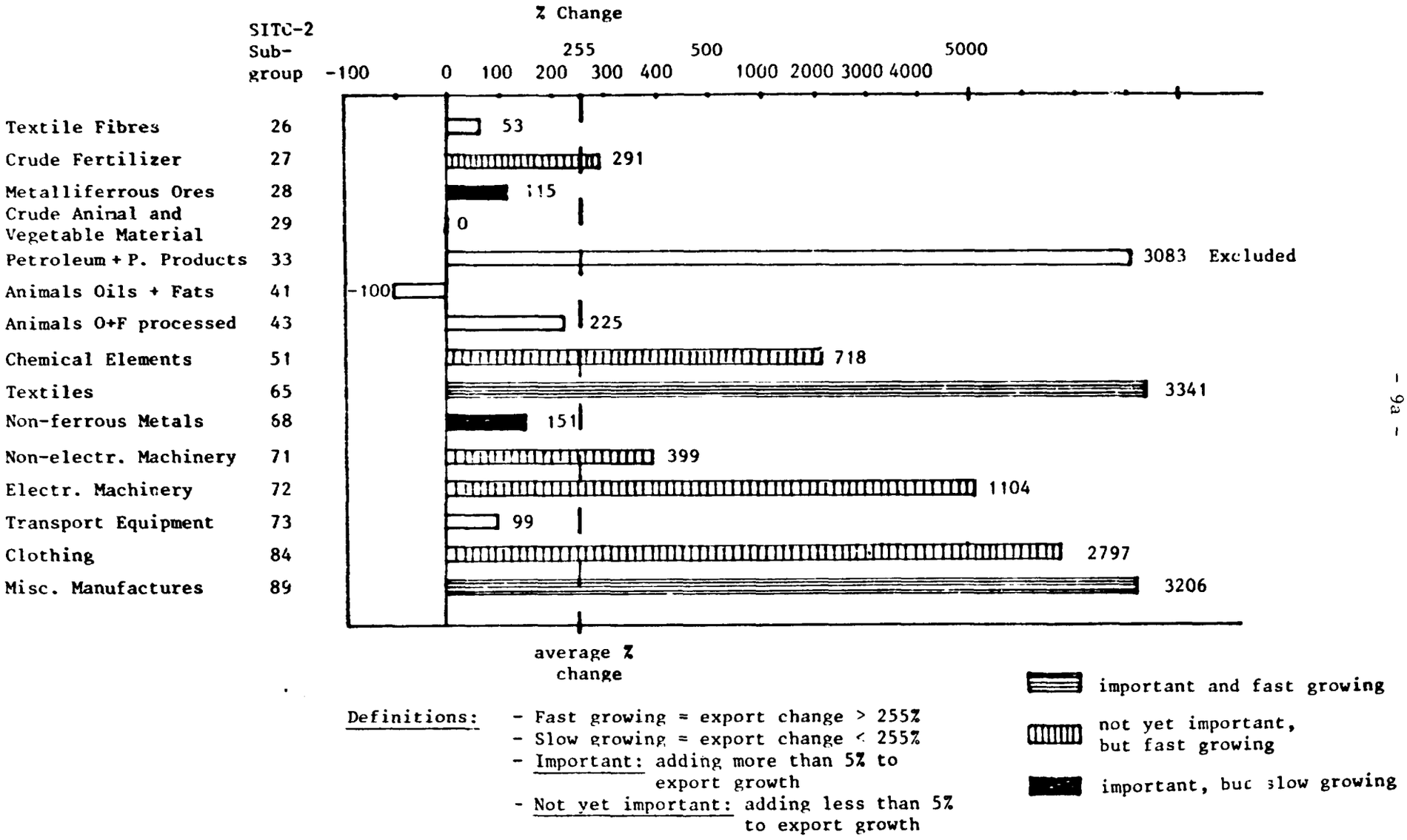
- 28 Metaliferous Ores
- 68 Non-ferrous Metals

IV. Infant Export Activities:

- + 24 Wood, Lumber and Cork
- + 53 Dyeing, Tanning and Colouring Materials

Figure 2

Growth Performance of SITC-2 Subgroups > 1500 US $ in 1975 (~ 0,2% of total exports in 1975)



Definitions:
- Fast growing = export change > 255%
- Slow growing = export change < 255%
- Important: adding more than 5% to export growth
- Not yet important: adding less than 5% to export growth

	55	Essential Oils and Perfume Materials etc.
+	56	Fertilizers, manufactured
	57	Explosives and Pyrotechnic Products
+	58	Plastic Materials, regenerated Cellulose and artificial Resins
	59	Chemical Materials and Products, n.e.s.
	63	Wood and Cork Manufactures (excl. Furniture)
	66	Non-metallic mineral Manufactures n.e.s.
	69	Manufactors of Metal, n.e.s.
+	82	Furniture
+	85	Footwear
+	94	Zoo Animals etc.

Leaving aside the Petro sector (33), Crude Fertilizers (27) and all group IV industries not surmounting an export value of US $ 7.500 (all industries marked with '+') in 1980, we have 15 SITC-2 sectors which are to be discussed in more detail.

(2) Extension to the SITC-3 level for selected industries and regions

To reach a better understanding of the structure of Peruvian export change we proceed to the SITC-3 level. Industrially and geographically disaggregated CMS-analysis on this level provides a great amount of detailed information that has to be condensed adequately to serve our intentions. Two tableaus have been elaborated (see annex 1 and 2) which will be interpreted simultaneously. The interpretation of a third tableau will be supplemented.

Tableau 1 provides a 47-sector analysis of Peruvian export growth performance between 1975 - 1980. While absolute values of CMS components do not need further explication, different coefficients of relative growth rates are to be taken in mind. Thus columns (12), (13) and (14) show the respective CMS-effect of an industry 'i' as % of the absolute change of exports 'i' (relative CMS-effect), while columns (9), (10) and (11) indicate the percentage participation of product group 'i' to the total CMS-effect[1] (CMS

1) If, for example, in column (10), the sector 653 indicates 4,49%, this signifies that this industry added 4,49% to the total market composition effect (= 100%) of all Peruvian exports.

participation effect). The world market effect is not very meaningful in sectoral disaggregation and will not be stressed in the following analysis.

Given a constant relative world market effect, product and market composition effects together with the development of Peru's competitive position gain importance. A look at position (14) in tableau 1 reveals, however, that the relative competition effects are dominating for the majority of the non-traditional export sectors (37 out of 44 growing sectors show a relative competition effect of more than 50%; 29 out of 38 manufacturing sectors even show values of more than 90%), thus indicating a nearly uniform reaction to the shift in export policies.

To get some more information on the structural performance of Peruvian export changes, we investigated on the distribution of export increases in the 47 SITC-3 subgroups to importing countries (tableau 2, annex).

Drawing on basic wisdom in general trade theory one can expect that Peruvian export growth would be dedicated to different country groupings for different product categories. Thus raw materials, reflecting Ricardian trade patterns and labour intensive production processes, stressed by advocates of relative factor endowments as a ruling foreign trade incentive, should predominantly find trading partners in the industrialized and (to a minor extent) in the newly industrializing countries. Developing countries, on the other hand, can only be expected to be important trading partners, if there really is a potential for south-south trade in Peruvian exports or if special trade policy arrangements, such as the Andean Pact, give (infant industry) protection to production processes not yet viable on the world market. As a first step, the application of these considerations leads us to differentiate between products going to industrial countries and those going to developing country markets. Then we further divide exports to developing countries in those remaining in Latin America, those (out of Latin American exports) dedicated to Andean Pact countries and those being imports of newly industrializing countries. Thirdly, we will ask, which country is the major exporter of the respective product group

a) on world level
b) in Latin America
c) within the Andean Pact.

If the dominating CMS-effect is the market composition effect (competition effect) this is indicated in columns (9) - (11) with 1 (0).

Column (13) indicates the kind of trade determinants which are dominating within this SITC-3 group:

CLS = classical trade determination
HO = dominating factor endowment differentials
SS = south-south trade
REG = strong regional component
AP = predominantly Andean Pact trade

In table 3 the dividing line between below and above average export performance is drawn at 255% again. It can be seen that all exports of the subgroups 5, 6 (except 68), 7 and 8 which include the relevant non-traditional production activities, have been relatively fast growing. Even if one takes into consideration that very small total export values in the base period produce exorbitantly high growth rates and are, after all, due to casual changes not indicating economic factors, there is a clear tendency of relatively advantageous manufacturing exports. This is especially true for subgroups 65, 89 (which also belong to the most important non-traditional export sectors), 53, 63, 66, 69, 84 and 85 which deserve closer examination. For all these successful exporters product and market composition effects can hardly be found. With the exception of SITC 897 (Jewellery and Gold- and Silversmith' wares) SITC 722 (electrical power machinery) and 842 (fur clothing) all product composition effects are near 0 or even negative. A positive market composition effect can only be identified for SITC 653 (textile fabrics other than cotton) and 892 (printed matter).

On the other hand, resource based processing industries founded on the country's mineral resources have not been successful in the international market. Not only the processing sector, captured in subgroup 68, but also its own resource base suffered below average or even negative rates of change (SITC 28). In clear contrast to the CMS component coefficients in the successful sectors, SITC positions 28 and 65 show extraordinary high and differing values. Since the SITC 28 - 68 sector sequences, especially the copper extracting and processing chain, are of upmost quantitative importance (SITC 28 and 68 exports amounted to about 87% of total exports

Figure 3

SITC-3 Export Coefficients

Sector	Relative Production Composition Effect (> ± 1%)	% Participation to Product Composition (> ± 1%)	Relative Market Composition Effect (> ± 1%)	% Participation to Market Composition (> ± 1%)	Total Exports in 1975 US $
651					1.031
2					1.523
3	- 3		36	4,49	1.185
5			- 3		195
6			- 2		401
7					65
892	- 4		11		466
3	- 4				314
4					46
7	+ 5	2,30	- 3		775
9					52
512					15
3	- 5				1.620
718	- 4				345
9	- 8	- 1,33			1.993
722	2				1.222
23					265
29					155
841					1.257
2	12				219
851					17

	% Change
	6.978
	2.688
	922
	2.930
	2.997
	7.067
	479
	∞
	3.161
	2.692
	3.698
	∞
	259
	974
	364
	330
	2.409
	4.417
	3.073
	1.218
	∞

to be continued

Figure 3

SITC-3 Export Coefficients

Sector	Relative Production Composition Effect (> ± 1%)	% Participation to Product Composition (> ± 1%)	Relative Market Composition Effect (> ± 1%)	% Participation to Market Composition (> ± 1%)	Total Exports in 1975 US $	% Change
681	3.068	468,57	- 658	- 49,86	81.287	- 8
2	2	21,84	9	49,74	151.230	303
5	60	47,34	27	10,06	25.529	129
6	- 319	- 120,43			48.639	- 33
551	- 4				390	467
3					3	∞
4					224	3.916
571	- 3				986	1.300
599					243	8.782
631					400	1.784
661					116	∞
4					53	4.981
5	- 2				260	948
6					3	∞
7					2	∞
693	- 9				313	690
5					4	∞
7					40	5.743
8					281	1.682
262	- 19	- 9,44		4,16	11.375	180
3	- 1.168	- 75,72		- 31,11	59.838	5
6	- 6	- 2,04		- 2,37	1.512	999
281	- 159	- 95,83	- 17	- 5,03	55.053	46
3	- 14	- 100,16	17	56,65	222.332	134
5	1.040	15,71	287	1,50	1.711	- 41

in 1975), and form also a major part of Peru's industrialization strategies, the reasons for this performance must be examined in depth.

Further investigation is also necessary on the important cotton producing/ cotton processing chain. Here the relatively successful export performance of the processing sectors are in contrast to the slowly growing raw material sector.

Turning to table 4 some interesting aspects of regional trade flows can be found. Processed copper (682) and textile products of SITC categories 651, 652 and 657 are exported nearly exclusively to industrialized countries. This is also true for its raw material base (262, 263, 283). There is a relatively small group of 7 industries which export to both industrialized and less developed countries. Some of them have relatively intensive trade contacts with non-Latin American developing countries (lead, chemical materials and products, and glass). Clothing, a very sensitive sector for developing countries, is found in this group, too, which appears to be somewhat surprising and needs further attention.

A third group of 12 SITC-3 sectors seems to be open to south-south trade relations, which is emphasized by the fact that more than 89% of all exports in this group go to other developing countries. It is in this group, that Latin American regional trade is relatively important.

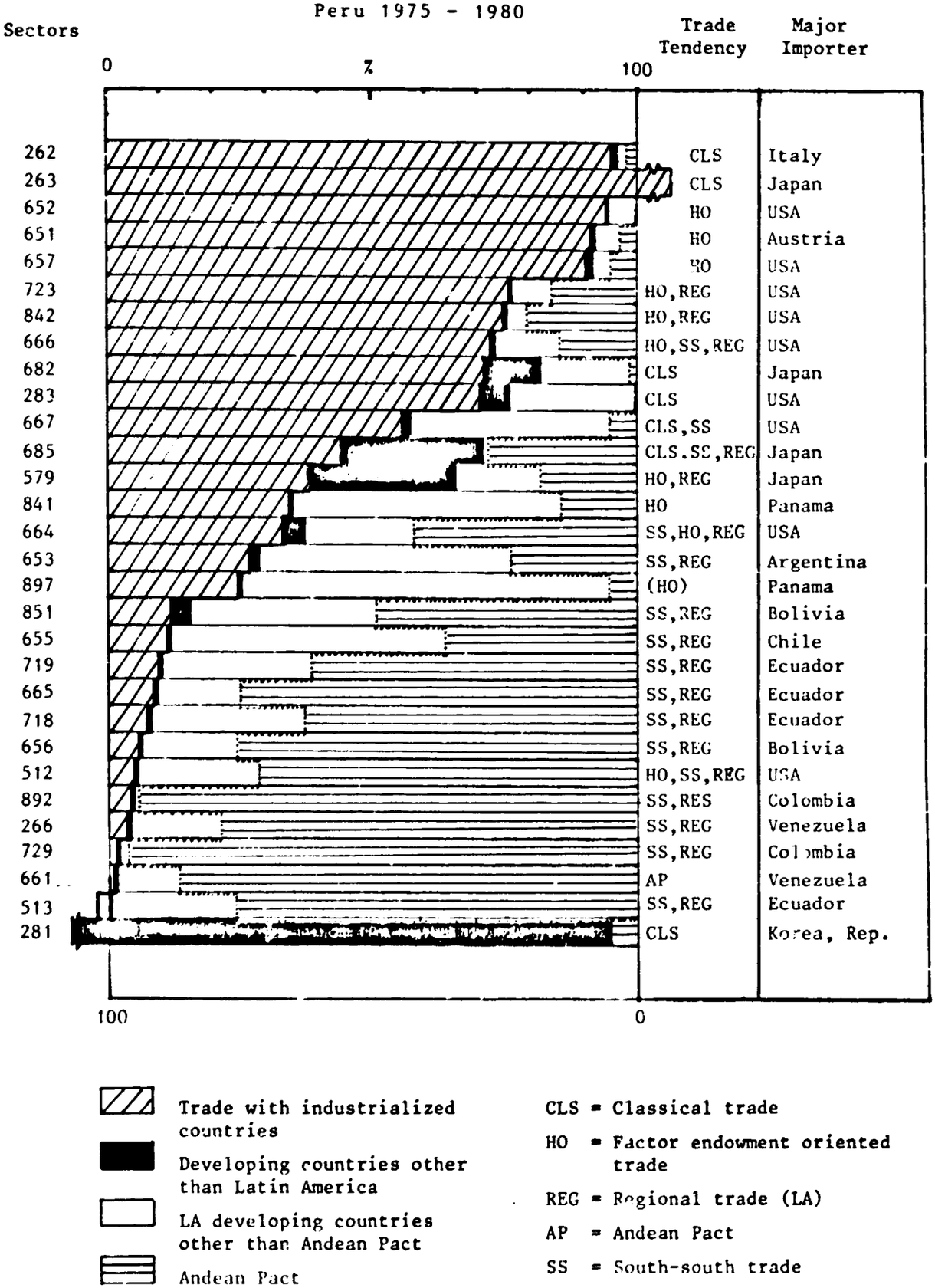
Textile and related industries

One of the most important export sectors for nearly any developing economy, which employs foreign trade actively as a contributor to growth, is the textile sector and the related activities in raw material production and ongoing manufacturing. Peru is said to have been an efficient producer of high quality cotton and shurely is one of the leading producers of special wool products (llama, alpaca). Nevertheless, only minor growth rates for these products were reached internationally. Negative signs for the product composition and the market composition effects (except in the case of wool) seem to indicate that unfavourable world market conditions could be part of an explanation of this phenomenon. A weak export performance could, however, be the result of unfavourable internal production possibilities (relative discrimination of the agricultural sector) and an incentive

Figure 4

Regional Distribution of Export Growth

Peru 1975 - 1980



structure discriminating against raw material exports (see part 1): if both phemonena fit with the conditions of the Peruvian cotton producing sector, this can result in a reorientation of exports to internal use, accompanied at the same time by a decrease of the whole sector, despite nationally and internationally increasing demand.

A look at the processing sector illuminates a complex picture. Textile yarn and threat production (651) and woven cotton fabrics (652), the quantitatively most important textile subsectors evolved dynamically. So did sectors 655, 656 and 657, which are of minor quantitative importance. Relatively slowly within this group, though high above the average export performance, evolved SITC 653 (textile fabrics other than cotton). This last result has to be seen as somewhat surprising, because it has to be recognized that this industry alone was favoured by a positive market composition effect.

Textile yarn and threat production has been the most important sector in this subgroup (adding more than 48% to the sector growth) followed by woven cotton fabrics (adding 27,6%). Both industries exported nearly exclusively to industrialized country markets (91,7% and 94,3%), the major importers being Austria (a country that received no Peruvian exports at all in 1975) and the USA respectively. The remaining exports to LDCs went almost exclusively to Chile, Bolivia and Ecuador, thus showing a strong regional appeal. An almost identical regional distribution (with the USA again as the major importer) reveals the yet relatively unimportant SITC-group 657 (floor coverings, tapastries etc.). On the other hand, textile fabrics other than cotton (653) and - even more pronounced - special textile fabrics and related products (655) and made-up articles (656) are in clear contrast to a.m. industries as export performance is concerned. Their markets are to be found predominantly in Latin America (89,7% and 95,1%). While Argentina has been a potent importer of textile fibres other than cotton (24,7%), the remaining subcetegories exported exclusively to Andean Pact members and Chile. Each of these 3 subgroups uses synthetic material inputs which often are provided by the local chemical industry. While production and export of low quality textiles with synthetic fibre content to neighbouring countries might be promising in view of demand considerations, serious competition from South-east Asian producers with advanced production possibilities must be expected in the medium run. In view of the still

relatively inefficient production of synthetics (economies of scale) in Peru, the only real advantage in such production activities should be seen in the geographical proximity of the relevant markets. This may be underlined by the fact, that only for SITC 653 a positive market composition effect can be recognized, while the product composition effects tend to be nearly zero (656) or even negative.

Natural fibres, however, which are traded with developed countries, do not seem to be appropiate as inputs for low quality mass production goods, so that an evolution of manufacturing activities in this production sector has to aim at the substitution of exports in relatively crude textiles. This, however, can only be successfully undertaken, if Peruvian entrepreneurs learn how to produce for the more sophisticated markets in industrial countries, which can guarantee the necessary demand potential for this kind of products.

A closely linked industry which will be an important strategic factor, if this line of export activities is to be stimulated, is the clothing industry (841), which enjoyed a remarkable up-swing in the period under consideration. 93% of the export growth of this sector has to be attributed to the competition effect. Product and market composition effects indicate small but positive values. A look at the country distribution of exports reveals a mixed performance. Only 33,2% export change can be attributed to industrial countries' imports. 66,8% of total trade increase are due to developing country imports and all of these remained in Latin America. The identification of the most important importing country, however, reveals an interesting fact. For 43,5% of all Peruvian exports in this subgroup and nearly two thirds of intra-Latin American trade and economically relatively unimportant country, Panama, is responsible. This surely rises some important questions, which can only be dealt with very shortly in this paper. Firstly, if clothing exports to Panama are only transitional and are directly passed to industrial countries, then geographical distribution is reversed: more than 75% of clothing exports would have to be classified as essentially caused by factor endowment differences. One probable explanation of the enormous amount of Panamesian imports could be the existance of processing facilities in this country in which Peruvian articles are up-graded or completed beforde shipment to the country of final destination. The second question therefore remains, why such

activities cannot efficienty be undertaken in Peru when they are profitable in Panama.

Copper and copper based production

Copper extraction has always been of outstanding importance for the Peruvian economy. This can be underlined by the fact, that SITC group 682 (processed copper) and 283 (ores and concentrates of base metals) represented more than 55% of total exports included in this analysis. Their combined growth between 1975 and 1980 counted for more than 48% of total export increase. Nevertheless, their combined growth rate was only 202% (303% for SITC 682 items, but only 134% for crude copper), so that in 1980 the export of copper products had relatively declined to about 41%. CMS-coefficients are divergent in product composition effects (SITC 281 reveals negative values while those for processed copper are slightly positive) but uniformly positive in market composition. 70,2% of ores and concentrates were exported to industrial countries, one third from these (26,1% from total) to the USA. The most important LDC-importer being Mexico (21,4%), a Latin American newly industrializing country. This finding coincides with the fact, that processed copper is used predominantly in developed countries, final products and processing has traditionally been undertaken there, too. It can, however, not be decided on base of the underlying data, if copper processing is an adequate production activity for developing countries. SITC 682 coefficients show a nearly identical geographical spread of processed copper, 70,8% dedicated to industrialized countries, about 90% of the remaining exports going to newly industrializing countries. Japan in the case of processed copper replaces the USA as the leading importer, while Brazil comes up as the major Latin American (and newly industrializing) importer.

The concentration of copper exports on industrial and relatively advanced industrializing countries may be explained by the fact, that the use of copper as an input for consumer and investment goods is fairly limited for the majority of the poor countries. Thus, if it is right, that a producer has to gather a lot of experience on the local market before starting international activities (this argument was firstly brought in by Linder and later impressively affirmed for the case of Japan by Yamazawa) then Peru neither has especially promising local nor international preconditions to use processed copper for more sophisticated manufactures on a larger scale.

As the argument is beyond any economic logic, that resource based industrialization is an meaningful development strategy per se, we have to ask further, if stimulation of the first stages of copper processing really is a promising policy target. It is argued that copper processing is accompanied by a weight reduction of about 65% which allows for more than 5% gain on processing costs due to diminishing freight costs (Radetzky). There is no such effect, however, if blister is transformed to refined copper. Further, and more important in the long run, technical progress seems to be working towards a concentration of extraction, refinement and processing activities at one place, since new and highly afficient continuous metal casting processes ask for integrated production units. On the other hand these productions need relatively much capital and do not provide very promising impulses via forward linkages and employment creation.

This leads to the suggestion that Peru can very well be a competitive supplier of copper in differently processed stages in the long run. Together with the fact that the copper sector actually is of upmost quantitative significance for Peru's export performance this calls for a very careful evaluation of the future possibilities of the world copper market and its role within the national development plans. If national producers keep on with the technological development in this sector, Peru should be able to defend its position as one of the world's leading producers. In this case, however, the provision of adequate investment conditions rather than inadequate export subsidization of processed copper should be the leading economic policy principle. Another point to be taken in mind if unconditioned production expansion plans will be reformulated is the most obscure situation on the world copper market. It has been estimated, that on base of then existing investment plans (1979), Peruvian copper production will increase about 5 - 5,5% yearly until 1990. Selling this increase on the world market would have meant a considerable increase in Peru's world market share even if the extremely high estimations of the development of the world copper demand would have been realized [1].

It appears to be that world demand for copper has been overestimated by many observers and by Peruvian (and other) politicians, who decided on the installation of new extracting capacity. This wrong diagnosis must be

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1) For these figures and other valuable comments on the mineral sector see Dammert, Alfredo, Economía minera, Lima 1981.

attributed firstly, to the generally too conservative evaluation of the substitution potential in the energy markets stimulated by rising oil prices (this in turn affecting copper based industries), and secondly, to the untypical down-swing in the industrialized countries, which resulted to be far more complex than usual business cycles. Even if the weak growth performance of the industrialized countries can be corrected within due time and this revives a new and lasting growth period, the (probably diminished) income elasticity of copper will hinder effectively any expansionary policy that is too ambitious in view of the market conditions. A Peruvian copper policy that is reformulated along these lines may be able to release a considerable amount of financial resources without doing harm to mineral production and export capacity. On the other hand it should be recognized that any economic political strategy in this sensitive sector, that is based on an illusionary view of the long run possibilities in this market, can hardly be compensated elsewhere due to its mere quantitative importance.

Another interesting resource processing chain is based on lead and silver resources. Lead, being the second most important single crude mineral actually be found in Peru, shows an even weaker growth performance than copper on the world market. The fact, that lead as an input in indsutrial products is more and more substituted because of the environmental damages attributed to it (only in batteries lead still seems to be unreplaceable) is since long well known. It follows without any doubt that this mineral does not fulfill the conditions to be asked for, if a promising line of industrial development sectors is looked for.

There exists, however, a close link between lead and silver extraction, because of the relatively high silver concentration to be found in lead minerals. A lower, but still significant silver content is to be found in crude copper and zinc (it is estimated that two thirds of world silver reserves are bound to copper, lead and zink reserves), so that the supply of silver appears to be relatively closely linked to the production of (and thus, in the long run, the development of) the world demand for the nonferrous metals mentioned before. This poses some special questions, which should be answered in view of the development of Peruvian silver exports. Silver production increased continuously between 1975 - 1980. This was to be expected, given the production links between silver and nonferrous

metals. Nevertheless, we have to realize negative growth rates for exports of refined silver (SITC 681) despite of the fact, that silver prices rose nearly 5-fold within the period under consideration. The analysis of CMS-components reveals that this 8% decline of silver exports happened despite a remarkably good performance of the product composition effect (herein the extremely high silver quotations play an important role) and must be attributed mainly to an extremely high negative competition effect. This finding, however, complicates the explication of the developments in the refined silver exports, because the average competition effect was able to explain nearly half of the total Peruvian export performance. It is therefore advisable to investigate on silver processing activities and its economic performance.

There is virtually no quantitatively important use of silver in Peruvian industrial manufacturing industries, because those kinds of sophisticated investment goods and consumer durables that have to rely on these inputs predominantly, do not yet play an important part in the industrial production pattern of the country (and in many cases are even not extisting). On the other hand Peruvian gold- and silversmith' wares have been well known for a long time. In fact, the analysis of the respective SITC-position 897 reveals a remarkable export increase of 2.692% which is accompanied by a relatively strong positive product composition effect and a high competition effect, which appears to be in complete contrast to the CMS-components of SITC group 681. Here again a simple explanation may be found in national production conditions which provided extremely high and rising real export subsidization for the switch from crude to processed silver exports.

Besides these quantitatively important resource based industrialization schemes, which, nevertheless, are apparently overestimated in many developing countries (and so, most probably, in the case of copper for Peru) there are a lot of industrial manufacturing activities, that evolved without a national resource base and might therefore indicate with some more certainty specific factor, know how or market oriented production possibilities. This kind of viable industry sectors could emerge, e.g.

- if production processes are employed, which allow for the utilization of abundant production factors,

- if infant industry protection is used adequately to create dynamic economies of scale,

- if specific abilities are exploited industrially.

These kinds of activities which industrial policy should encourage are, however, not easy to be identified. They are at the core of entrepreneural talent and might be found even within the most disaggregated set of individual production and export data. It will, nevertheless, be important to know which kinds of manufacturing activities had a good performance on international markets. The following sectors deserve closer attention:

512, 513, 599, 893 (chemical industry and industries using chemical products as inputs)

661 - 666 (cement etc., glass and pottery)

718, 719 (machinery for special industries)

851 (footwear)

892 (printed matter)

From these industries, only footwear production belongs to those classical labour intensive export sectors that are usually stressed in export promotion strategies. The outstanding growth performance of this sector (exports grew from almost 0 in 1975 to 7.897 US $ in 1980) and a (slightly) positive product composition effect seem to confirm this view. The regional spread, however, reveals that Peruvian footwear exports newly exclusively went to Latin American developing countries (84,1%). Bolivia alone received about one third which appears to be in clear contrast to development theory. Another potent importer in Latin America is Argentina which has itself been a strong competitor in this sector. While Peruvian performance on the Argentine market will certainly be influenced by political and economic turbulences within this country, a very strong regional and Andean Pact bias might be an indicator, that this sector still has to prove its viability on the world market.

Some industries from the SITC-group 66 are closest to position 851 as for their development potential. This is especially true for sectors 664, 665

and 666, all of which started from extremely low levels in 1975 and had above average growth rates. Regional trade flows in the glass industries differ significantly. While 32,9% of exports in subsector 664 found its way to industrial country markets, only 8,2% of glass ware products did. The LDC-trade in the latter category took place exclusively within Latin America and predominantly (75%) within the Andean Pact. It might be concluded from this distribution of trade flows, that the internationally competitive parts of the glass industry belong to those branches that produce relatively crude industrial inputs, while further elaborated productions still had to rely on the Andean market protection. Pottery, quantitatively of even minor importance than the glass industry, faces relatively good conditions on the U.S. market (44%). All three subgroups are of minor importance today. This should not prevent from deeper investigation on the possibilities of these sectors, even if product and market competition effects seem to be not very encouraging. Firstly, glass and ceramics industries face a relatively strong market for lower quality industrial products as well as in consumer goods within the region. Secondly, the organization of industrial processing in these sectors seems to be relatively easy and, after all, can very often draw on relatively skilled national human resources. Thirdly, in many cases, production might be efficient on relatively small scale, thus opening up the possibility to encourage the local informal sector effectively. Fourthly, besides those traditional utilizations of glass and ceramics products, its use in high technology productions seems to be extremely promising today. These arguments taken together indicate that immediate results of adequate incentives and continuous up-grading options in the future make these industries interesting from the dynamic point of view.

There has been put considerable effort on the development of a chemical industry complex in Peru. These kinds of activities are, however, open to large economy of scale effects which need in turn a large market. Peru alone surely is too small economically to offer a market for three competing firms in this sector. Despite this significant obstacle to efficient production units, regional trade of chemical products evolved dynamically: 96,2% of organic chemical and all of inorganic chemical exports were shipped to Latin American countries (there is a relatively strong market composition effect in inorganic chemicals; organic chemicals

show no negative CMS-coefficients). Though 71,5% remained within the Andean Pact (which indicates the influence of high external trade barriers), there seem to be markets for Peruvian chemicals in other Latin American countries, too. Since some other advantageous non-traditional export sectors are closely linked to the chemical industry (e.g. 599 (chemical materials), 655-657 (textile sectors using synthetic fibre inputs), 893 (plastic materials)), which all did fairly well on Latin American markets, the chemical industry and its direct and indirect subsectors have grown to considerable importance for the Peruvian export sector regionally. Nevertheless, the organization of this sector has to aim at production units, that allow the exploitation of economies of scale. If this task requires the creation of a national monopoly, only its confrontation with international competitors will guarantee, that negative side-effects are minimized.

Two groups of manufacturing activities are left, which do not belong to the industrial sectors usually favoured in LDCs. Machinery for special industries and (corresponding) appliances and parts (718, 719) and printed matters (892), nevertheless, have been successful exporters in the recent past.

Groups 718 and 719 products usually belong to the most efficient high technology sectors in industrialized countries, in which specific knowledge often forms an insurmountable barrier to entry for less developed countries. Peruvian engineers, however, have been trained in special techniques of mineral extraction processes in mountainous surroundings over a long time period. The encouragement of the formation and industrial utilization of these skills might therefore be an especially important undertaking of economic policy.

Due to the fact, that SITC-3 information does not capture any specific activity in the highly disaggregated subgroups 718 and 719, the results of the CMS-analysis for these sectors appear to be even more indicative: Both sectors enjoyed considerably high growth rates despite negative product and market composition effects. This performance must be evaluated in the light of the regional export distribution. 93,1% and 90,2% of these goods were purchased by Latin American trading partners, the single most important countries being Ecuador, Chile, Argentina and Bolivia. Thus,

promising markets for Peruvian engineering products will be limited to regional training partners and the development of the mining industries within these countries (at least in the short run). This is not to say, that particular knowledge in some special production lines will be without expansionary possibilities in the rest of the world. Quantitatively, however, these activities will not contribute a significant part to Peruvian export performance in the near future.

Printed matter (892) is another one of those quantitatively unimportant but fast growing production sectors. Again, the potential to amplify export activities to reach U.S. and European markets seems to be relatively small in the short run. Regional markets, as can be suggested from the strong positive market composition effect, seem to be promising, however, if the general degree of efficiency will be improved behind the Andean Pact trade barriers (96,1% of the exports remain within this market).

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(3) Analysis of the Peruvian export structure with different countries

Some additional information can be gathered, when trade data are decomposed to show the structure of the increase of Peruvian imports to different trading partners. The extraction of the data of the most important Peruvian export markets reveals (Table 1), that 62,8% of the sample covering 92,8% of total export increase go to industrialized countries, 30,3% to developing countries, about one quarter represents intra-Latin American trade, and nearly 11% are internal Andean Pact trade flows with Ecuador being the most important single trade partner (3,6%). Total increase was accompanied by opposing developments of the competitive position in different markets. In the most important single market (USA) the positive market composition effect dominated (56,92%), but there still existed a strong competition effect (43,46%). Positive coefficients are also to be stated for Italy and the Netherlands, Brazil, the Korean Republic and Ecuador and Colombia within the Andean Pact. While the competition effect had been positive with all other important importers as well, this is not the case with the market competition effect, which is generally negative.

On the basis of this finding it may be suggested, that the underlying trade structures are quite heterogeneous as well. A detailed decomposition of

Peruvian exports for each of the partner countries will show, if definite tendencies of Peruvian trade flows can be discovered (tableau 3, Annex). There are, indeed, some remarkable structural patterns to be seen. Firstly, there appears to be the somewhat confusing fact, that trade structures with the USA and with the Andean Pact countries plus Chile appear to be quite similar. This fact becomes even more obvious, when U.S. petroleum and petro products are excluded (they account for more than 80% of total Peruvian exports to the USA). One explanation would be, that U.S. imports are concentrated on products, which are of minor importance within the Andean Pact, while typical Andean Pact trading categories are only of marginal interest to U.S. importers. In this case U.S. dominating imports would probably coincide with those of other industrialized countries while marginal trade flows in the other sectors would have to be seen either as the result of specific production activities which not have been captured on SITC-3 level or as purely accidental. As for the first argument, comparison of U.S. with Japanese and European trade structure (all essentially shaped by classical trade determinants and factor endowment differences) reveals, that indeed the 4 sectors: 651 and 652 (textile), 68 (processed minerals) and 841 (clothing), which stand for the majority of Japanese and European imports, cover about 30% of U.S. imports, too. There are, however, some remarkable differences such as in subsectors 657, 723, 851 and group 89 products, which entered U.S. markets, but not those of other developed countries. Trade relations with the Andean Pact countries and Chile on the other hand are not shaped by the products which are apparently most important in north-south trade relations. Instead, products originating in different manufacturing sectors are exported to the neighbouring countries, forming a relatively diversified regional submarket, which should not be ignored because of its potential long run dynamic effects on the formation of regional industrial subcenters, even if temporary infant industry protection should not be avoidable.

It is well known in development politics, that there is not much room left between necessary, temporary protection of young markets and wasteful subsidization of inadequate production structures. In the case of Peru, a look at trade relations with developing countries outside the Andean Pact reveals, that there are at least some industries that seem to be efficient enough to find (limited) regional markets under world market conditions,

if especially tight geographical relations can be relied on (Chile and (probably) Argentina). This situation worsens considerably, if the import performance of the newly industrializing countries is taken as a reference for the determination of the Peruvian position of the world markets. None of the four newly industrializing countries included in this study showed any interest in Peruvian manufactured exports. Their trade structure with Peru therefore was principally the same as the patterns to be observed in classical north-south trade, which means, that (as a rule of thumb) even factor endowment oriented Peruvian industries are not competitive on the world market, if the most advanced competitors are taken as reference. It may be suggested therefore, that Andean Pact protection as well as the particular Peruvian incentive system, though having significantly contributed to regional trade growth, did hardly lead to a maturation of the stimulated industries. One central question for economic policy makers has therefore to be, why favourable external stimuli did not cause productivity and capacity rising investment within the country.

Relevant market composition and competition effects had already been discussed before and must not be stressed in this context again.

III. THE ONGOING DEVELOPMENT PROCESS SINCE 1980

The CMS-analysis in part II relied on data for the period 1975- 1980. Since then, a tremendous slow-down in internal and external economic activities took place in Peru. A casual observer might therefore be willing to believe, that the actual situation has already devalued this analysis to economic history. Such an argumentation would be wrong, however, if economic policy perspectives are to be analyzed in due depth. This is so, firstly, because the present problems can completely be understood only, if the structural problems of the economy itself are taken into consideration. Secondly, the evaluation of a successful industrialization strategy should not be influenced too much by cyclical down-swings and extraordinary events, that do not change the country's fundamental economic position. Thus e.g., if about 50% of economic decline in 1983 is attributed to unfavourable climatic conditions caused by the re-appearance of "El Niño", this surely might rise the question, how Peru could avoid such desasters in the future.

Table 1

Most important Importers of Peruvian Goods

	Change 1975-1980 US $	% of Total Increase	Market Composition in %	Competition in %
Industrialized Countries:	1.204.772	62,5		
USA	744.088	38,6	56,92	43,46
Japan	111.948	5,8	-32,43	-9,82
Europe:	348.736	18,2		
Italy	109.596	5,7	8,97	7,48
Belgium	68.577	3,6	-4,41	+3,40
Un. Kingdom	66.683	3,5	-7,27	3,36
FRG	61.828	3,2	-4,86	2,04
Netherlands	42.052	2,2	+6,41	0,94
Developing Countries:	585.579	30,3		
Latin America	484.323	25,2		
Andean Pact	204.685	10,7		
Ecuador	68.751	3,6	52,62	0,92
Bolivia	49.924	2,6	-12,63	5,73
Venezuela	44.266	2,3	-1,19	4,18
Colombia	41.744	2,2	16,69	1,53
Chile	36.623	1,9	-12,49	4,42
Panama	99.428	5,2	-0,70	10,31
Newly Industrializing Countries:	244.843	12,6		
Mexico	78.025	4,0	-7,03	8,45
Brazil	65.562	3,4	3,45	2,98
Yugoslavia	64.331	3,3	-0,07	6,55
Korean Rep.	36.925	1,9	6,15	3,22
	Σ 1.790.351	92,8		

Source: United Nations International Trade Statistics

It certainly should not have a major impact on industrialization plans, however. A similar problem occurs, if cyclical down-swings on the world market touch a country's own economic position. The question, how to minimize the exposition to world wide cyclical movements can only be dealt with meaningfully, if the country's fundamental position (as opposed to short run bottlenecks) is taken for reference. Even if world recessions indicate trend reversals, this problem should be attacked with due respect to the national strategic position rather than to casual events.

In view of this arguments the 1975 - 1980 period provides an especially helpful picture of Peruvian trade performance, which in its most important implications is as valuable today as it has been some years ago, if it is used to enable policy makers to avoid short term decisions that fail to coincide with general insight into economic development processes.

Thus the most important structural problems of the Peruvian manufacturing sector in 1984 might be traced directly to the developments recognized in the second half of the seventies. Two of them are directly related to decisions aimed at foreign trade oriented strategies.

Firstly, decisions on resource-based industrialization schemes, especially in the copper sector, founded on superficial and speculative evaluations of primary commodity markets, absorbed an inadequate share of the funds available to development financing. The lasting decline of copper prices (which admittedly has been especially severe this time) between 1980 and 1982 (from 98,82 US $ / lb to 66,80 US $ / lb) [1] and its stabilization in 1983 on a level far below the costs of any but the very cheapest producers [2] destroyed all the hopeful suppositions of the Peruvian copper policy at least in the medium run. Looking on the ongoing capacity augmentations in the mining sector it is not very clear today if this situation has already been fully understood in Peru.

Secondly, the most selective and costly subsidization of Peruvian exports obviously caused a run on export subsidies rather than the evolution of a competitive new export industries. This fact, indirectly but impressively demonstrated by the dominating competition effect in the CMS-analysis,

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1) Ministerio de Economía, Finanzas y Comercio y Banco Central de la Reserva del Perú, 1982.

2) Fluctuations in 1983 reached from £ 950 to £ 1.150/t.
See: Commodity Report, Jan. 13, 1983, p. 5.

became obvious when the CERTEX system had been corrected in 1981, which helped to let non-traditional exports drop about 17% from the 1980 level[1]. On the other hand, non-traditional exports rose again about 9,2% in 1982, which, however, could not even compensate for the continuous decline of copper exports.

The reaction of non-traditional exports to the CERTEX reforms can taken as an indicator, showing the "subsidy seeking" effect of the former incentive system. There is another strong suggestion that export encouragement in the period under consideration did not give rise to the formation of a competitive export industry: there has virtually no rise in private capital formation taken place between 1975 (29.899 millions of Soles of 1970) and 1980 (30.060 millions of Soles) [2]. Leaving aside all substitution processes between private firms, this appears to be a relatively clear indicator for the fact that a considerable share of total export growth did not lead to any internal structural transformation (exports thus were to a large extent just highly subsidized vents for surplus).

This behaviour would find an explanation, if the incentives were taken as temporary by the Peruvian entrepreneurs, so that risky investment in new production activities was avoided. Another line of argumentation, however, would stress the national investment conditions as being generally hostile: whatever kind of production incentive is introduced, this will only meet growth promoting activities, if production factors are allowed to move from the relatively descriminated to the relatively favoured sectors and if this kind of policy can be relied on for at least the average investment period. Thus, an undispensable precondition for any growth promoting policy is the provision of stable national production conditions open to changing economic necessities. Obviously, the actual corrections in the rigid labour law of the seventies are not a sufficiant move in the right direction.

It might be summarized, that Peru in fact has a relatively broad spectrum of possible industrial options, due to its relatively skilled labour force and some already existing manufacturing activities (which are, however,

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1) Exchange rate policy was the other major negative factor. Banco Central de la Reserva, Memoria 1981.

2) dto., Memoria 1982, Anexo II.

sometimes encouraged to operate outside the official market). Rather than imposing selective stimuli for potential growth industries (automatically discriminating against other sectors which might have had equal growth possibilities) industrial policy should correct obvious misallocations (copper) and provide a favourable developmental climate in general.

IV. SUMMARY

CMS-analysis provides some valuable evidence on Peruvian trade performance during the 1975 - 1980 period. Though the recent development seems to indicate major changes in the Peruvian economy, actual problems can be traced to some developments in the seventies which effectively hinder the Peruvian recovery even today. So the fact, that the copper sector is of upmost importance to Peru, does not imply that copper based activities have to be seen as a promising line for industrial development. Here a careful r · formulation of economic policy targets should be aimed at.

A relatively broad spectrum of fast growing export sectors could be identified from the underlying data. This can be taken as an indication for the fact, that there exists an already wide scale of latent industrialization options, which do not rely on special inputs or especially labour intensive production processes. Effective stimulation of agglomeration centres, in which those activities might find their place, goes far beyond mere factor re-allocation policy. Forming viable dynamic agglomeration centres is an essentially dynamic problem, which can be approached by the formulation of incentive policies that provide effective growth impulses to the whole industrial community. This does not deny the setting of political data, however. On the contrary, infant industry protection (which should, however, be temporary) as well as labour market regulations that help to undertake (rather than forbid) necessary adjustments and, last not least, the provision of an adequate infra-structure will surely have to be part of such a policy package.

A N N E X

Tableaux I - III

Tableau 1

Peruvian Trade Performance (1975 - 1980) / CMS-Components and

SECTION 1

I. IMPORTANT AND FAST GROWING SECTORS

651 Textile yarn and threat
652 Cotton fabrics woven
653 Textile fabrics other than cotton
655 Special textile fabrics and related products
656 Made-up articles, wholly and chiefly of text. materials
657 Floor coverings, tapestries etc.

892 Printed matter
893 Articles of artificial plastic materials
894 Preambulators, toys, games and sporting goods
897 Jewellery and goldsmith's and silversmith's wares
899 Manufactured articles

II. IMPORTANT BUT SLOWLY GROWING SECTORS

681 Silver, platinum and other metals of the platinum group
682 Copper, processed
685 Lead
686 Zinc

281 Iron ore and concentrates
283 Ores and concentrates of nonferrous base metals
285 Silver and platinum ores

Rates of Change for selected SITC-3 Sectors

(1) Exports (1975) US $	(2) Exports (1980) US $	(3) Total Change US $	(4) % Change	(5) World Market Effect (WME)
1.031	72.977	71.946	6.978	1.329
1.523	41.974	40.945	2.688	1.373
1.185	12.113	10.928	922	1.456
195	5.909	5.714	2.930	239
401	12.419	12.018	2.997	493
65	7.132	7.067	10.872	80
466	2.696	2.230	479	573
314	75.450	75.136	23.929	386
46	1.500	1.454	3.161	57
775	21.636	20.861	2.692	953
52	1.975	1.923	3.698	64
81.287	74.646	- 6.641	- 8	99.926
151.230	609.927	458.697	303	185.907
25.259	58.509	32.980	129	31.383
48.639	32.759	- 15.880	- 33	59.792
55.053	80.405	25.352	46	67.677
222.332	519.763	297.431	134	273.313
1.711	1.008	- 703	- 41	2.104

(5) World Market Effect (WME)	(6) Product Composition Effect (PCE)	(7) Market Composition Effect (MCE)	(8) Composition Effect (CE)	(9) % Participation of SITC Group to total PCE	(10) % Participation of SITC Group to total MCE	(11) % Participation of SITC Group to total CE	(12) Relative PCE (6) : (3)	(13) Relative MCE (7) : (3)	(14) Relative CE (8) : (3)
1.329	- 346	- 357	71.140	- 0,82	- 0,41	7,38	- 0,5	- 0,5	99
1.373	- 382	381	38.846	- 0,91	0,43	4,04	- 1	1	95
1.456	- 372	3.931	5.845	- 0,88	4,49	0,61	- 3	36	53
239	- 51	- 132	5.789	- 0,12	- 0,15	0,60	- 1	- 3	100
493	66	- 209	11.661	0,16	- 0,24	1,21	1	- 2	97
80	12	9	6.958	0,03	0,01	0,72	0	0	98
573	- 93	236	1.515	- 0,22	0,27	0,16	- 4	11	68
386	119	- 616	75.135	0,28	- 0,70	7,79	0	- 1	100
57	25	20	1.353	0,06	0,02	0,14	1	1	93
953	969	- 696	19.651	2,30	- 0,79	2,04	5	- 3	94
64	- 2	10	1.846	.	0,01	0,19	0	1	96
99.926	197.086	- 43.685	- 249.868	468,57	- 49,86	- 25,91	3.068	- 658	- 3.763
185.907	9.188	43.582	254.468	21,84	49,74	26.38	2	9	55
31.383	19.910	8.813	- 13.252	47,34	10,06	- 1,37	60	27	- 40
59.792	- 50.654	1	- 21.107	- 120,43	0	- 2,19	- 319	0	- 133
67.677	- 40.308	- 4.406	- 6.740	- 95,83	- 5,03	- 0,70	- 159	- 17	- 27
273.313	- 42.128	49.631	63.469	- 100,16	56,65	6,58	- 14	17	21
2.104	6.608	1.317	- 10.732	15,71	1,50	1,11	1.040	287	- 1.527

SECTION 2

Tableau 1 (continued from page 1)

Peruvian Trade Performance (1975 - 1980) / CMS-Components and

SECTION 1

III. NOT (YET) IMPORTANT BUT FAST GROWING SECTORS

512 Organic chemicals
513 Inorganic chemicals

262 Wool
263 Cotton
266 Synth. textiles

718 Machines for special industries
719 Machinery and appliances (other than electrical) and machine parts
722 Electrical machinery and switch gear
723 Equipment for distributing electricity
729 Other electr. machines and apparatus

841 Clothing (except fur)
842 Fur clothing

IV. INFANT EXPORTER ACTIVITIES

551 Essential oils, perfume and flavour materials
553 Perfumery and cosmetics, dentifrices and other toilet preparations (except soap)
554 Soaps, cleansing and polishing preparations

571 Propellent powders and other prepared explosives

599 Chemical materials and products

631 Veneers, plywood boards, ...
632 Wood manuf. n.e.s.

Rates of Change for selected SITC-3 Sectors

(1) Exports (1975) US $	(2) Exports (1980) US $	(3) Total Change US $	(4) % Change	(5) World Market Effect (WME)
15	5.530	5.545	∞	19
1.620	5.822	4.202	259	1.992
11.375	31.807	20.432	180	13.984
59.838	62.565	2.727	5	73.559
1.512	16.487	14.975	990	1.859
345	3.707	3.362	974	424
1.993	9.241	7.248	364	2.450
1.222	5.254	4.032	330	1.502
265	6.650	6.385	2.409	326
155	7.002	6.847	4.417	190
1.257	39.880	38.623	3.073	1.546
219	2.897	2.668	1.218	269
390	2.211	1.821	467	480
3	1.696	1.693	∞	4
224	8.996	8.772	3.916	275
986	13.801	12.815	1.300	1.211
243	21.584	21.341	8.782	299
400	7.534	7.134	1.784	491
20	972	952	4.760	25

.) nge	(5) World Market Effect (WME)	(6) Product Composition Effect (PCE)	(7) Market Composition Effect (MCE)	(8) Composition Effect (CE)	(9) % Participation of SITC Group to total PCE
∞	19	2	12	5.512	0
259	1.992	- 202	668	1.600	- 0,48
180	13.984	- 3.972	3.643	7.390	- 9,44
5	73.559	- 31.851	- 27.257	- 12.303	- 75,72
990	1.859	- 857	- 2.076	15.992	- 2,04
974	424	- 153	- 437	3.528	- 0,36
364	2.450	- 559	- 249	5.623	- 1,33
330	1.502	66	794	1.670	0,16
409	326	3	900	5.156	0,01
417	190	65	- 15	6.607	0,15
073	1.546	278	609	36.132	0,66
218	769	317	372	1.590	0,75
467	480	- 74	259	1.156	- 0,17
∞	4	2	- 6	1.693	0
916	275	- 15	- 215	8.726	- 0,03
300	1.211	- 342	- 215	12.161	- 0,81
782	299	- 12	- 70	15.250	- 0,03
784	491	74	- 53	6.621	0,18
760	25	8	1	930	0,02

SECTION

(10) % Participation of SITC Group to total MCE	(11) % Participation of SITC Group to total CE	(12) Relative PCE (6) : (3)	(13) Relative MCE (7) : (3)	(14) Relative CE (8) : (3)
0,01	0,57	0	0	99
0,76	0,17	- 5	16	38
4,16	0,77	- 19,4	18	36
- 31,11	- 1,28	-1.168	- 999	- 451
- 2,37	1,66	- 6	- 14	107
- 0,50	0,37	- 4	- 13	105
- 0,28	0,58	- 8	- 3	78
0,91	0,17	2	19	41
1,03	0,53	0	14	81
- 0,02	0,68	1	0	96
0,69	3,75	1	2	93
0,42	0,16	12	14	60
0,30	0,12	- 4	14	63
- 0,01	0,18	0	0	100
- 0,25	0,90	0	2	99
- 0,25	1,26	- 3	- 2	95
- 0,08	1,58	0	- 1	71
- 0,06	0,69	1	- 1	93
0	0,10	1	0	98

Tableau 1 (continued from page 2)

Peruvian Trade Performance (1975 - 1980) / CMS-Components and Rates of Change for selected SITC-3 Sectors

		(1) Exports (1975) US $	(2) Exports (1980) US $	(3) Total Change US $	(4) % Change	(5) World Market Effect (WME)
661	Lime, cement and fabricated building materials, except glass and clay	116	31.740	31.624	∞	143
664	Glass	53	2.693	2.640	4.981	65
665	Glassware	260	2.724	2.464	948	320
666	Pottery	3	932	929	∞	4
667	Pearls and precious and semi precious stones	2	3.127	3.125	∞	2
693	Wire products (except electrical) and fencing grilles	313	2.474	2.161	690	384
695	Tools for use in the hand or in machines	4	1.296	1.292	∞	5
697	Household equipment of base metals	40	2.337	2.297	5.743	49
698	Manufactures of metal	281	5.008	4.727	1.682	345
851	Footwear	17	7.897	7.880	∞	21

SECTION 1

(4) nge	(5) World Market Effect (WME)	(6) Product Composition Effect (PCE)	(7) Market Composition Effect (MCE)	(8) Composition Effect (CE)	(9) % Participation of SITC Group to total PCE
∞	143	21	402	31.059	0,05
81	65	20	- 44	2.598	0,05
48	320	- 39	- 148	2.330	- 0,09
∞	4	1	0	924	0
∞	2	2	- 0,10	3.128	0,01
40	384	- 197	- 75	2.049	- 0,47
∞	5	0	- 6	1.294	- 0,02
43	49	15	4	2.228	0,04
32	345	- 41	- 295	4.630	- 0,10
∞	21	7	- 1	7.702	0,02

SECTION 2

(10) % Participation of SITC Group to total MCE	(11) % Participation of SITC Group to total CE	(12) Relative PCE (6) : (3)	(13) Relative MCE (7) : (3)	(14) Relative CE (8) : (3)
0,46	3,22	0	1	98
- 0,05	0,27	1	- 2	98
- 0,17	0,24	- 2	- 6	94
.	0,10	0	0	100
.	0,32	0	0	100
- 0,09	0,21	- 9	- 3	95
- 0,01	0,13	.	.	100
0,00	0,23	1	.	97
- 0,34	0,48	- 1	- 6	98
0	0,08	1	.	98

Tableau II

Distribution of Export Increases of Peruvian Products per Importing Countries

Sector		Total Change (0)	Developing Countries (1)	% (1:0)	Latin America (2)	% (2:0)	Andean Pact (3)	% (3:0)	Newly Ind. Countries (4)	%	Industr. Countries (5)	%
262	Wool	20.538	943 (8.258)	4,6	852 (14)	4,1	473	2,3	178 (7.288)	1	19.799	95,4
263	Cotton	2.032	-8.978	-541,0	-17.222	-947,0	932	46,0	-9.948	-591	10.705	527
266	Synthetic fibres	14.917	14.592	97,8	14.592	97,8	11.777	79,0	117	0,8	325	2,1
281	Iron ore and concentr.	16.060	23.419	145,8	1.039	6,5	-		23.419	145,8	-7.359	-45,8
283	Ores & conc. of base metals	319.083	94.962	29,8	74.874	23,5	-3	0	82.723	25,9	224.122	70,2
285	Silver and platinum ores	-2.224	-26		-35		-		-26		2.199	
512	Organic chemicals	5.545	5.339	96,2	5.339	96,2	3.816	71,5	314	68,8	206	3,7
513	Inorganic chemicals	4.058	4.092	101	4.092	101	3.135	77,3	373	9,2	-31	-1,0
599	Chemical materials and prod.	15.467	9.533	61,6	3.229	20,9	2.847	18,4	6.329	40,9	5.987	38,7
651	Textile yarn and threat	71.767	5.969	8,3	5.090	7,1	2.614	3,6	1.284	1,8	65.798	91,7
652	Cotton fabr. woven	40.769	2.291	5,6	2.291	5,6	114	0	403	0,9	38.455	94,3
653	Text.fabr.other than cotton	10.860	7.864	72,4	7.746	71,3	2.583	23,8	2.779	25,6	2.992	27,6
655	Spec.tex.fabr. and related	5.781	5.162	89,3	5.162	89,3	2.065	35,7	17	0	619	10,7
656	Made-up articles	12.011	11.423	95,1	11.423	95,1	9.334	77,7	107	0,9	582	4,8
657	Floor coverings, tapastr.etc.	7.058	676	9,6	632	8,9	376	5,3	58	0,8	6.375	90,3
661	Lime, cement & fabr.build.mat.	31.624	31.544	99,7	31.544	99,7	27.399	86,6	3.325	10,5	78	0,2
664	Glass	2.640	1.761	66,7	1.644	62,3	1.109	42,0	287	10,9	869	32,9
665	Glassware	2.464	2.257	91,6	2.257	91,6	1.849	75,0	7	0	202	8,2
666	Pottery	929	257	27,7	255	27,5	131	14,1	57	6,1	665	71,6
667	Pearls & precious & semip.stones	3.125	1.351	43,2	1.327	42,5	191	6,1	24	0,7	1.773	56,7
681	Silver, platinum and other	-4.471	155		155		-35		-434		-4.624	
682	Copper	439.395	128.113	29,2	79.126	18,0	8.369	1,9	115.298	26,2	311.279	70,8
685	Lead	31.239	17.524	56,1	9.143	29,3	8.841	28,3	7.947	25,4	13.536	43,3
718	Machines for special ind.	3.362	3.131	93,1	3.131	93,1	2.097	62,4	897	26,7	230	6,8
719	Mach. & appliances (other than electr.) & parts	7.256	6.543	90,2	6.581	90,7	4.421	60,9	591	8,1	628	8,7

Land	Major Importer World (6)		%	Land	Major Importer LA (7)	%	Land	Major Importer AP (8)
I	10.285	1) a/	50	CO	455	2,2	CO	455
JA	5.498	b/	271	UR	1.014	49,9	CO	863
CO	7.733	b/	51,8	CO	7.733	51,8	CO	7.733
KOR	22.380	b/	139,5	AR	1.572	9,7		-
USA	84.877	b/ c/	26,6	ME	68.185	21,4		-
CO	1.911	c/	34,5	CO	1.911	34,5	CO	1.911
VE	1.494	b/	36,8	VE	1.494	36,8	VE	1.494
JA	5.479	b/	35,4	VE	1.263	8,2	VE	1.263
AUS	20.778	b/	29,0	CH	1.258	1,8	BO	1.026
USA	32.013	a/	78,5	CH	1.544	3,8	EC	97
AR	2.707	a/	24,9	AR	2.707	24,9	BO	2.337
CH	2.924	a/	50,6	CH	2.924	50,6	EC	1.742
BO	6.305	a/	52,5	BO	6.305	52,5	BO	6.305
USA	5.508	a/c/	78	BO	294	4,2	BO	294
EC	26.799	a/	84,7	EC	26.799	84,7	EC	26.799
USA	781	b/	29,6	EC	390	14,8	EC	390
EC	1.355	a/	55,0	EC	1.355	55,0	EC	1.355
USA	409	c/	44,0	AR	57	6,1	VE	49
USA	1.652	c/	52,9	PA	1.136	36,3	VE	191
FRG	19.500			UR	546			-
JA	74.498	b/	17,0	BR	64.981	14,8	VE	5.409
JA	9.872	b/	31,6	VE	5.912	18,9	VE	5.912
EC	1.742	b/	51,8	EC	1.742	51,8	EC	1.742
EC	2.289	a/	31,5	EC	2.289	31,5	EC	2.289

SECT

%	Dominating Effect[2] World (9)	LA (10)	AP (11)	Specialization Tendency[3] (12)	Important Trading Partners (13)
2,2	1	0	0	CLS	IL:[4] I,FRG,JA
42,5	0	0	1	CLS	IL: JA,PO,UK
51,8	0	0	0	SS, REG	EL: LA/CO,EC.VE
-	0	0	-	CLS	EL: KOR, AR
-	0	0	-	CLS CLS	IL: USA,NL,B,FRG,JA;NIC: ME
34,5	0	0	0	SS, REG	EL: CO,EC,BO,PA,AR
36,8	1	1	1	SS, REG	EL: VE,CO,EC,BR,CH
8,2	0	0	0	HO. REG, NIC	EL: YU,VE,EC; IL: JA
1,4	0	0	0	HO	IL: AUS, FRG, I
0	0	0	0	HO	IL: USA
21,5	1	1	0	SS, REG	EL: AR,BO
33,7	0	0	0	SS, REG	EL: CH,EC
52,5	0	0	0	SS, REG	EL: BO,CH,CO,EC
4,2	1	0	0	HO	IL: USA; EL: BO
84,7	1	1	1	SS, REG	EL: EC,ME
14,8	0	1	1	SS, HO, REG	IL: USA; EL: EC
55,0	0	0	0	SS, REG	EL: EC
5,3	1	0	0	HO, SS, REG	EL: AR,VE,PAN; IL: USA
6,1	0	0	0	CLS, SS	IL: USA; EL: PAN
	0	0	-	(CLS)	IL: JA↓, FRG↑
1,2	0	0	0	CLS, HO, NIC	IL: JA,I,UK; EL: BR
18,9	1	0	0	CLS, SS, REG	IL: JA,I; EL: VE,KOR,CO
51,8	0	0	0	SS, REG	EL: AR,BO; IL: EC
31,5	1	1	1	SS, REG	IL: EC; EL: CH, VE

Tableau II (continued from page 1)

Distribution of Export Increases of Peruvian Products per

Sector		Total Change (0)	Developing Countries (1)	% (1:0)	Latin America (2)
722	Electr. power machinery	4.031	4.031	100,0	4.031
723	Equipm.f.distributing electr.	6.385	1.534	24,0	1.534
729	Other electrical machinery	6.847	6.802	99,3	6.802
841	Clothing	38.564	25.750	66,8	25.677
842	Fur clothing	2.514	625	24,9	625
851	Footwear	7.703	6.852	89	6.482
892	Printed matter	2.230	2.176	97,6	2.176
893	Art.of artif.plastic materials	75.024	61.865	82,5	61.865
897	Jewellery & Gold- & Silver-smith's wares	20.866	16.016	76,8	16.016

SECTION 1

Importing Countries

% (2:0)	Andean Pact (3)	% (3:0)	Newly Ind. Countries (4)	%	Industr. Countries (5)	%
100,0	3.717	92,2	155		-	
24,0	1.071	16,8	13	0	4.851	76
99,3	6.662	97,3	-10	0	45	0,6
66,8	5.502	14,3	2.051	5,3	12.806	33,2
24,9	509	20,2	11	0	1.892	75,3
84,1	3.788	49,2	733	9,5	850	11
97,6	2.142	96,1	-58	-2,6	71	3,2
82,5	867	1,1	145	0	13.155	17,5
76,8	1.190	5,7	34	0	4.840	23,2

Land	Major Importer World (6)	%	Land	Major Importer LA (7)	%	Land	Major Importer AP (8)
BO	1.181	29,3	BO	1.181	29,3	BO	1.181
USA	4.851 b/	76	EC	913	14,3	EC	913
VE	2.747 b/	40,1	VE	2.747	40,1	VE	2.747
PAN	16.786 b/	43,5	PAN	16.786	43,5	BO	3.621
USA	1.750	69,6	VE	437		VE	437
BO	2.517 c/	32,7	BO	2.517	32,7	BO	2.517
VE	871 b/	39,1	VE	871	39,1	VE	871
PAN	60.278 c/	80,3	PAN	60.278	80,3	VE	742
PAN	14.683 b/	70,4	PAN	14.683	70,4	EC	861

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1) a/ Dominating Importer in 1975

b/ Not Dominating Importer in 1975

c/ Not applicable

2) 1 = Dominating Market Composition Effect

0 = Dominating Competition Effect

3) CLS = Classical Trade Determination

HO = Factor Endowment oriented Trade Determination

SS = South-South-Trade

REG = Intra-regional Trade (AP, LA)

4) IL = Industrial Country

EL = Less Developed Country

%	Dominating Effect[2] World (9)	LA (10)	AP (11)	Specialization Tendency[3] (12)	Important Trading Partners (13)
29,3	0	0	0	SS, REG	EL: BO,CO,VE,EC
14,3	0	1	1	HO, REG	IL: USA; EL: EC
40,1	0	0	0	AP-Trade	
8,9	0	0	0	(HO)	EL: PAN
17,4	1	0	0	HO, REG	IL: USA; EL: VE
32,7	0	0	0	SS, REG	IL: USA; EL: BO,CH,EC,AR
39,1	0	0	0	SS, REG	
0,9	0	0	0	HO	EL: PAN; EL: USA, SWZ
70,4	0	0	0	HO	PAN

SECTION 2

Tableau III

SELECTED PARTNERMARKETS FOR PERUVIAN EXPORTS

Change in Exports 1975 - 1980

- USA -

Sectors	Absolute Change US $ (1)	Relative Change (%) (2)	Relative Sector Contribution to total Change (%) (3)	Relative Sector Contribution to total Market Composition Effect (%) (4)	Relative Sector Contribution to total Competition Effect (%) (5)
512	172	∞	0,02	0	0,04
3	- 378	- 56	- 0,05	0,46	- 0,32
599	82	∞	0,01	0	0,02
651	2.178	2.200	0,29	- 0,08	0,51
2	32.013	4.606	4,30	0,11	7,46
3	433	1.312	0,06	0	0,10
5					
6	286	160	0,04	0,17	- 0,01
7	5.509	∞	0,74	0,07	1,29
661					
4	781	∞	0,10	0	0,19
5	180	∞	0,02	0	0,04
6	409	∞	0,05	0	0,10
7	1.652	∞	0,22	.	0,39
681	2.039	5	0,27	13,74	- 35,98
2	35.582	96	4,38	102,19	- 15,78
5	- 1.931	- 41	- 0,26	- 10,07	- 1,50
718					
9	458	3.270	0,06	0,02	0,10
722					
3	4.851	∞	0,65	0	1,16
9					
841	8.517	7.742	1,14	0,06	1,99
2	1.750	1.563	0,24	0,58	0,28
851	703	∞	0,09	0	0,17
892					
3	10.714	∞	1,44	.	2,56
4	191	∞	0,03	0	0,05
897	2.078	3.247	0,28	0,04	0,45
Important sectors not covered:					
331	525.846	∞	71	0	125

Tableau III

SELECTED PARTNERMARKETS FOR PERUVIAN EXPORTS

Change in Exports 1975 - 1980

- Japan -

Sectors	Absolute Change US $ (1)	Relative Change (%) (2)	Relative Sector Contribution to total Change (%) (3)	Relative Sector Contribution to total Market Composition Effect (%) (4)	Relative Sector Contribution to total Competition Effect (%) (5)
512					
3	106	560	0,09	0,13	0,05
599	5.479	∞	4,89	0	6,44
651	902	∞	0,81	0	1,06
2					
3					
5					
6					
7					
661					
4					
5					
6					
7					
681	- 30.922	- 95	- 27,62	- 192,24	- 111,50
2	74.498	807	66,55	1,50	73,05
5	9.872	540	8,82	63,45	- 13,91
718					
9					
722					
3					
9					
841					
2					
851					
892					
3					
4					
897					
Important sectors not covered:					

Tableau III

SELECTED PARTNERMARKETS FOR PERUVIAN EXPORTS

Change in Exports 1975 - 1980

- Italy -

Sectors	Absolute Change US $ (1)	Relative Change (%) (2)	Relative Sector Contribution to total Change (%) (3)	Relative Sector Contribution to total Market Composition Effect (%) (4)	Relative Sector Contribution to total Competition Effect (%) (5)
512					
3					
599	166	∞	0,15	0	0,23
651	7.756	5.998	7,08	3,04	10,18
2	3.297	921	3,01	5,46	3,49
3	1.680	∞	1,53	0,04	2,32
5					
6					
7					
661					
4					
5					
6					
7					
681					
2	69.373	6.370	63,30	8,48	93,34
5	4.453	90	4,06	0,13	- 763
718					
9					
722					
3					
9					
841	- 264	- 49	- 0,24	7,36	- 2,28
2					
851					
892					
3					
4					
897					
Important sectors not covered:					

Tableau III

SELECTED PARTNER MARKETS FOR PERUVIAN EXPORTS

Change in Exports 1975 - 1980

- United Kingdom -

Sectors	Absolute Change US $ (1)	Relative Change (%) (2)	Relative Sector Contribution to total Change (%) (3)	Relative Sector Contribution to total Market Composition Effect (%) (4)	Relative Sector Contribution to total Competition Effect (%) (5)
512					
3					
599					
651	1.993	∞	2,99	0	6,15
2	158	1.320	0,24	0,02	0,45
3	190	∞	0,29	0	0,59
5					
6					
7					
661					
4					
5					
6					
7					
681	654	47	0,98	50,57	- 23,54
2	67.968	895	101,93	- 57,58	190,73
5					
718					
9					
722					
3					
9					
841	1.601	1.160	2,40	0,09	4,30
2					
851					
892					
3					
4					
897					
Important sectors not covered:					

Tableau III

SELECTED PARTNERMARKETS FOR PERUVIAN EXPORTS

Change in Exports 1975 - 1980

- FRG -

Sectors	Absolute Change US $ (1)	Relative Change (%) (2)	Relative Sector Contribution to total Change (%) (3)	Relative Sector Contribution to total Market Composition Effect (%) (4)	Relative Sector Contribution to total Competition Effect (%) (5)
512					
3					
599					
651	14.934	7.818	24,15	0,53	74,92
2	1.110	∞	1,80	0,01	5,64
3	141	∞	0,23	0	0,72
5					
6					
7	186	∞	0,30	0	0,91
661					
4					
5					
6					
7					
681	19.500	∞	31,54	0	99,13
2	- 2.746	- 15	- 4,44	- 77,55	- 118,30
5	179	∞	0,29	0	0,91
718					
9	182	∞	0,29	0,04	0,90
722					
3					
9					
841	743	417	1,20	- 0,87	2,65
2					
851					
892					
3	242	∞	0,39	0	1,23
4					
897	127	668	0,21	- 0,44	0,50
Important sectors not covered:					
283	23.435	441	37,90	11,24	88,62

Tableau III

SELECTED PARTNERMARKETS FOR PERUVIAN EXPORTS

Change in Exports 1975 - 1980

- Netherlands -

Sectors	Absolute Change US $ (1)	Relative Change (%) (2)	Relative Sector Contribution to total Change (%) (3)	Relative Sector Contribution to total Market Composition Effect (%) (4)	Relative Sector Contribution to total Competition Effect (%) (5)
512					
3					
599					
651	1.100	∞	2,62	- 0,02	12,08
2	671	267	1,60	- 1,20	5,43
3					
5					
6					
7	117	∞	0,28	.	1,28
661					
4					
5					
6					
7					
681	- 798	- 100	- 1,90	- 21,01	- 27,96
2	25.044	1.889	59,55	- 9,30	263,28
5	1.228	57	2,92	31,70	- 53,91
718					
9					
722					
3					
9					
841	239	1.593	0,57	- 0,08	2,45
2					
851					
892					
3					
4					
897					
Important sectors not covered:					
283	34.870	1.471	82,91	30,79	338,55

Tableau III

SELECTED PARTNERMARKETS FOR PERUVIAN EXPORTS

Change in Exports 1975 - 1980

- Yugoslavia -

Sectors	Absolute Change US $ (1)	Relative Change (%) (2)	Relative Sector Contribution to total Change (%) (3)	Relative Sector Contribution to total Market Composition Effect (%) (4)	Relative Sector Contribution to total Competition Effect (%) (5)
512					
3					
599	5.229	∞	8,13	0	8,27
651					
2					
3					
5					
6					
7					
661					
4					
5					
6					
7					
681					
2	48.458	∞	75,33	0	76,65
5	1.224	∞	1,90	0	1,94
718					
9					
722					
3					
9					
841					
2					
851					
892					
3					
4					
897					
Important sectors not covered:					

Tableau III

SELECTED PARTNERMARKETS FOR PERUVIAN EXPORTS

Change in Exports 1975 - 1980

- Korea -

Sectors	Absolute Change US $ (1)	Relative Change (%) (2)	Relative Sector Contribution to total Change (%) (3)	Relative Sector Contribution to total Market Composition Effect (%) (4)	Relative Sector Contribution to total Competition Effect (%) (5)
512					
3					
599					
651					
2					
3					
5					
6					
7					
661					
4					
5					
6					
7					
681					
2					
5	6.311	∞	17,09	0	20,33
718					
9					
722					
3					
9					
841					
2					
851					
892					
3					
4					
897					
Important sectors not covered:					
281	22.380	2.263	60,61	99,95	53,16
283	6.989	∞	18,93	0	22,52

Tableau III

SELECTED PARTNERMARKETS FOR PERUVIAN EXPORTS

Change in Exports 1975 - 1980

- Mexico -

Sectors	Absolute Change US $ (1)	Relative Change (%) (2)	Relative Sector Contribution to total Change (%) (3)	Relative Sector Contribution to total Market Composition Effect (%) (4)	Relative Sector Contribution to total Competition Effect (%) (5)
512					
3					
599					
651					
2					
3					
5					
6					
7					
661	2.824	∞	3,62	0	3,47
4					
5					
6					
7					
681					
2	2.405	∞	3.08	0	2,95
5					
718					
9	662	∞	0,85	- 0,05	0,81
722					
3					
9					
841					
2					
851					
892					
3					
4					
897					
Important sectors not covered:					
283	68.185	2.400	87,39	- 85,56	87,17

Tableau III

SELECTED PARTNERMARKETS FOR PERUVIAN EXPORTS

Change in Exports 1975 - 1980

- Brazil -

Sectors	Absolute Change US $ (1)	Relative Change (%) (2)	Relative Sector Contribution to total Change (%) (3)	Relative Sector Contribution to total Market Composition Effect (%) (4)	Relative Sector Contribution to total Competition Effect (%) (5)
512					
3	349	∞	0,53	0	1,21
599	139	∞	0,21	0	0,48
651					
2					
3					
5					
6					
7					
661	505	∞	0,77	0	1,74
4					
5					
6					
7					
681					
2	64.981	387	99,11	20,88	216,32
5	- 570	- 100	- 0,87	- 56,54	- 0,02
718					
9					
722					
3					
9					
841	370	∞	0,56	0	1,29
2					
851					
892					
3					
4					
897					
Important sectors not covered:					
686	- 7.173	- 41,8	- 10,94	- 88,40	- 26,86

Tableau III

SELECTED PARTNERMARKETS FOR PERUVIAN EXPORTS

Change in Exports 1975 - 1980

- Panama -

Sectors	Absolute Change US $ (1)	Relative Change (%) (2)	Relative Sector Contribution to total Change (%) (3)	Relative Sector Contribution to total Market Composition Effect (%) (4)	Relative Sector Contribution to total Competition Effect (%) (5)
512					
3					
599					
651					
2					
3					
5					
6					
7					
661					
4					
5					
6					
7					
681					
2					
5					
718					
9					
722					
3					
9					
841					
2					
851					
892					
3	60.278	∞	60,62	0	60,61
4					
897	14.684	∞	14,77	- 4,31	14,76
Important sectors not covered:					

Tableau III

SELECTED PARTNERMARKETS FOR PERUVIAN EXPORTS

Change in Exports 1975 - 1980

- Chile -

Sectors	Absolute Change US $ (1)	Relative Change (%) (2)	Relative Sector Contribution to total Change (%) (3)	Relative Sector Contribution to total Market Composition Effect (%) (4)	Relative Sector Contribution to total Competition Effect (%) (5)
512	202	∞	0,55	0	0,47
3	382	273	1,04	- 0,27	0,93
599	198	∞	0,54	- 0,09	0,48
651	1.258	1.165	3,43	- 1,89	3,20
2	1.544	∞	4,22	0	3,62
3	1.530	4.250	4,18	- 0,63	3,67
5	2.924	4.238	7,98	- 1,24	7,01
6	1.455	∞	3,97	0	3,41
7					
661	343	∞	0,94	0	0,80
4	359	∞	0,98	0	0,84
5	405	∞	1,11	0	0,95
6					
7					
681					
2	2.025	∞	5,53	0	4,74
5	114	29	0,31	- 10,65	1,18
718	132	∞	0,36	0	0,31
9	1.040	430	2,84	- 4,31	3,00
722	179	471	0,49	- 0,80	0,51
3	155	∞	0,42	0	0,36
9					
841	1.303	∞	3,56	- 0,13	3,07
2					
851	1.865	∞	5,09	0	4,37
892					
3	575	467	1,57	- 2,92	1,63
4	248	∞	0,68	- 0,04	0,58
897					
Important sectors not covered:					
541	2.786	5.928	7,61	- 0,84	6,64
554	1.497	∞	4,09	- 0,22	3,53
735	6.141	∞	16,77	0	14,39

Tableau III

SELECTED PARTNERMARKETS FOR PERUVIAN EXPORTS

Change in Exports 1975 - 1980

- Ecuador -

Sectors	Absolute Change US $ (1)	Relative Change (%) (2)	Relative Sector Contribution to total Change (%) (3)	Relative Sector Contribution to total Market Composition Effect (%) (4)	Relative Sector Contribution to total Competition Effect (%) (5)
512	1.307	∞	1,90	0,03	14,36
3	406	133	0,59	0,65	- 2,59
599	1.001	1.451	1,46	0,05	10,12
651	999	1.526	1,45	- 0,17	11,50
2					
3					
5	1.742	3.287	2,53	0,02	18,94
6	1.158	2.316	1,68	- 0,14	13,00
7					
661	26.799	∞	38,98	0,92	295,44
4	390	∞	0,57	0,02	4,24
5	1.355	560	1,97	- 0,31	13,92
6					
7					
681					
2	2.078	217	3,02	2,67	- 4,39
5	262	143	0,38	- 0,10	- 0,65
718	1.742	∞	2,53	0,04	19,17
9	2.289	272	3,33	1,28	10,15
722	714	376	1,04	0,41	3,14
3	913	379	1,33	1,95	- 3,23
9	1.196	2.135	1,74	0,02	12,34
841	1.826	∞	2,66	- 0,01	20,55
2					
851	1.271	∞	1,85	.	14,31
892	479	504	0,70	- 0,06	4,64
3					
4					
897	861	∞	1,25	0	9,70
Important sectors not covered:					
554	3.303	2.447	4,80	- 0,05	35,69
561	1.663	∞	2,42	.	18,74
673	2.218	∞	3,23	- 0,01	24,91

Tableau III

SELECTED PARTNERMARKETS FOR PERUVIAN EXPORTS

Change in Exports 1975 - 1980

- Bolivia -

Sectors	Absolute Change US $ (1)	Relative Change (%) (2)	Relative Sector Contribution to total Change (%) (3)	Relative Sector Contribution to total Market Composition Effect (%) (4)	Relative Sector Contribution to total Competition Effect (%) (5)
512 3	598	∞	1,20	.	1,08
599	426	1.521	0,85	- 0,55	0,82
651 2	1.026	645	2,05	- 2,74	2,14
3	2.337	∞	4,68	0	4,23
5	291	∞	0,58	- 0,05	0,53
6	6.305	6.178	12,63	- 2,21	11,60
7	294	∞	0,59	- 0,13	0,54
661	483	∞	0,05	- 0,19	0,78
4 5 6 7	371	309	0,74	- 0,28	0,69
681 2	789	537	1,58	- 3,04	1,69
5	102	443	0,20	- 0,62	0,22
718	264	97	0,53	- 4,41	0,97
9	715	274	1,43	- 4,60	1,77
722 3	1.181	606	2,37	- 4,09	2,50
9	1.945	∞	3,90	- 0,12	3,53
841 2	3.421	∞	6,85	- 0,03	6,19
851	2.517	∞	5,04	0	4,56
892 3	585	1.828	1,17	- 0,59	1,12
4	102	∞	0,21	0	0,19
897	150	∞	0,30	- 0,11	0,28
Important sectors not covered:					
541	1.805	207	3,61	- 15,52	4,84
554	3.925	5.032	7,86	- 1,53	7,25
673	10.147	7.046	20,33	- 2,20	18,63
674	2.263	∞	4,53	0	4,10

Tableau III

SELECTED PARTNERMARKETS FOR PERUVIAN EXPORTS

Change in Exports 1975 - 1980

- Venezuela -

Sectors	Absolute Change US $ (1)	Relative Change (%) (2)	Relative Sector Contribution to total Change (%) (3)	Relative Sector Contribution to total Market Composition Effect (%) (4)	Relative Sector Contribution to total Competition Effect (%) (5)
512	461	∞	1,04	0	1,14
3	1.494	1.358	3,37	40,78	2,35
599	1.263	2.005	2,85	0,11	2,95
651	107	∞	0,24	- 0,03	0,26
2					
3					
5					
6					
7					
661					
4	355	∞	0,80	0	0,88
5	398	3.980	0,90	0,44	0,95
6					
7					
681					
2	5.409	566	12,22	- 51,44	11,70
5	5.912	∞	11,36	0	14,67
718					
9	1.173	1.222	2,65	- 0,22	2,69
722	756	220	1,71	31,21	- 0,03
3	134	∞	0,30	0	0,33
9	2.747	∞	6,21	- 0,47	6,79
841	223	∞	0,50	0	0,55
2	437	2.570	0,99	- 3,82	1.07
851	295	∞	0,67	0	0,73
892	871	2.722	1,97	3,87	1,98
3	742	∞	1,68	- 0,01	1,84
4	644	∞	1,45	- 0,24	1,58
897	179	39	0,41	- 1,17	0,63
Important sectors not covered:					
686	2.638	370	5,96	56,92	4,74
733	2.375	∞	5,37	0	5,90

Tableau III

SELECTED PARTNERMARKETS FOR PERUVIAN EXPORTS

Change in Exports 1975 - 1980

- Colombia -

Sectors	Absolute Change US $ (1)	Relative Change (%) (2)	Relative Sector Contribution to total Change (%) (3)	Relative Sector Contribution to total Market Composition Effect (%) (4)	Relative Sector Contribution to total Competition Effect (%) (5)
512	1.911	∞	4,58	0	12,92
3	1.183	519	2,83	- 1,37	7,65
599	107	∞	0,26	0	0,72
651	482	∞	1,15	0	3,26
2					
3	198	71	0,47	2,46	- 2,63
5					
6	1.784	∞	4,27	0	12,06
7					
661	173	∞	0,42	0	1,17
4					
5					
6					
7					
681					
2					
5	2.565	420	6,14	- 2,80	11,81
718					
9	244	567	0,58	0,37	1,00
722	1.066	286	2,55	5,99	- 1,96
3					
9	774	1.164	1,85	0,03	4,46
841					
2					
851					
892	207	233	0,50	- 0,06	0,84
3					
4					
897					
Important sectors not covered:					
686	2.341	60	5,61	17,11	- 6,07

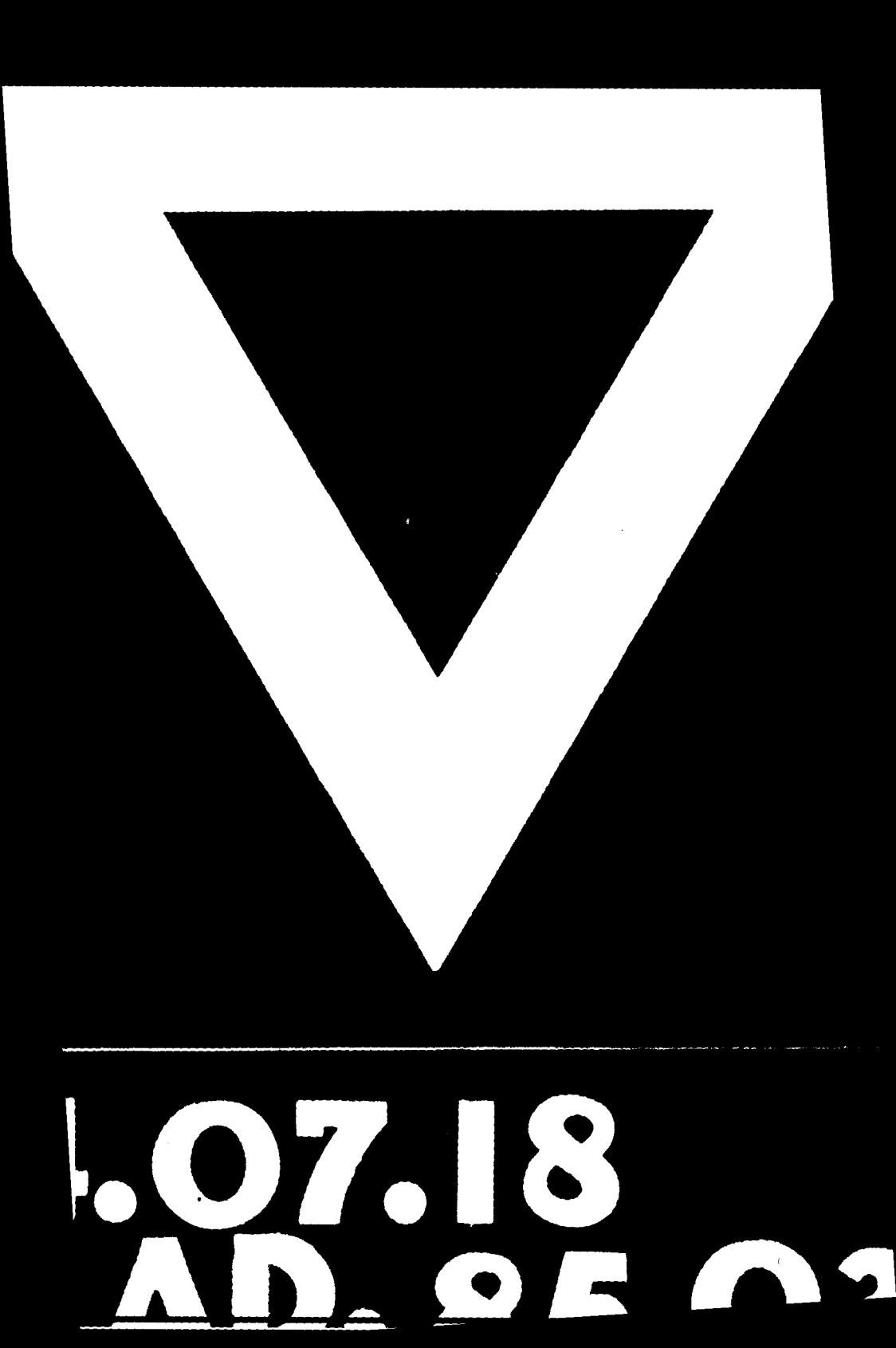
Tableau III

SELECTED PARTNERMARKETS FOR PERUVIAN EXPORTS

Change in Exports 1975 - 1980

- Belgium -

Sectors	Absolute Change US $ (1)	Relative Change (%) (2)	Relative Sector Contribution to total Change (%) (3)	Relative Sector Contribution to total Market Composition Effect (%) (4)	Relative Sector Contribution to total Competition Effect (%) (5)
512					
3					
599					
651	3.999	∞	5,83	0	12,18
2	151	∞	0,22	0	0,46
3					
5					
6					
7					
661					
4					
5					
6					
7					
681					
2	12.848	103	18,73	31,79	- 17,50
5	- 86	- 100	- 0,13	7,96	- 1,72
718					
9					
722					
3					
9					
841	124	∞	0,18	- 0,03	0,36
2					
851					
892					
3					
4					
897					
Important sectors not covered:					
283	50.849	297	74,15	- 100,46	118,94



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