



TOGETHER
for a sustainable future

OCCASION

This publication has been made available to the public on the occasion of the 50th anniversary of the United Nations Industrial Development Organisation.



TOGETHER
for a sustainable future

DISCLAIMER

This document has been produced without formal United Nations editing. The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations Industrial Development Organization (UNIDO) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries, or its economic system or degree of development. Designations such as “developed”, “industrialized” and “developing” are intended for statistical convenience and do not necessarily express a judgment about the stage reached by a particular country or area in the development process. Mention of firm names or commercial products does not constitute an endorsement by UNIDO.

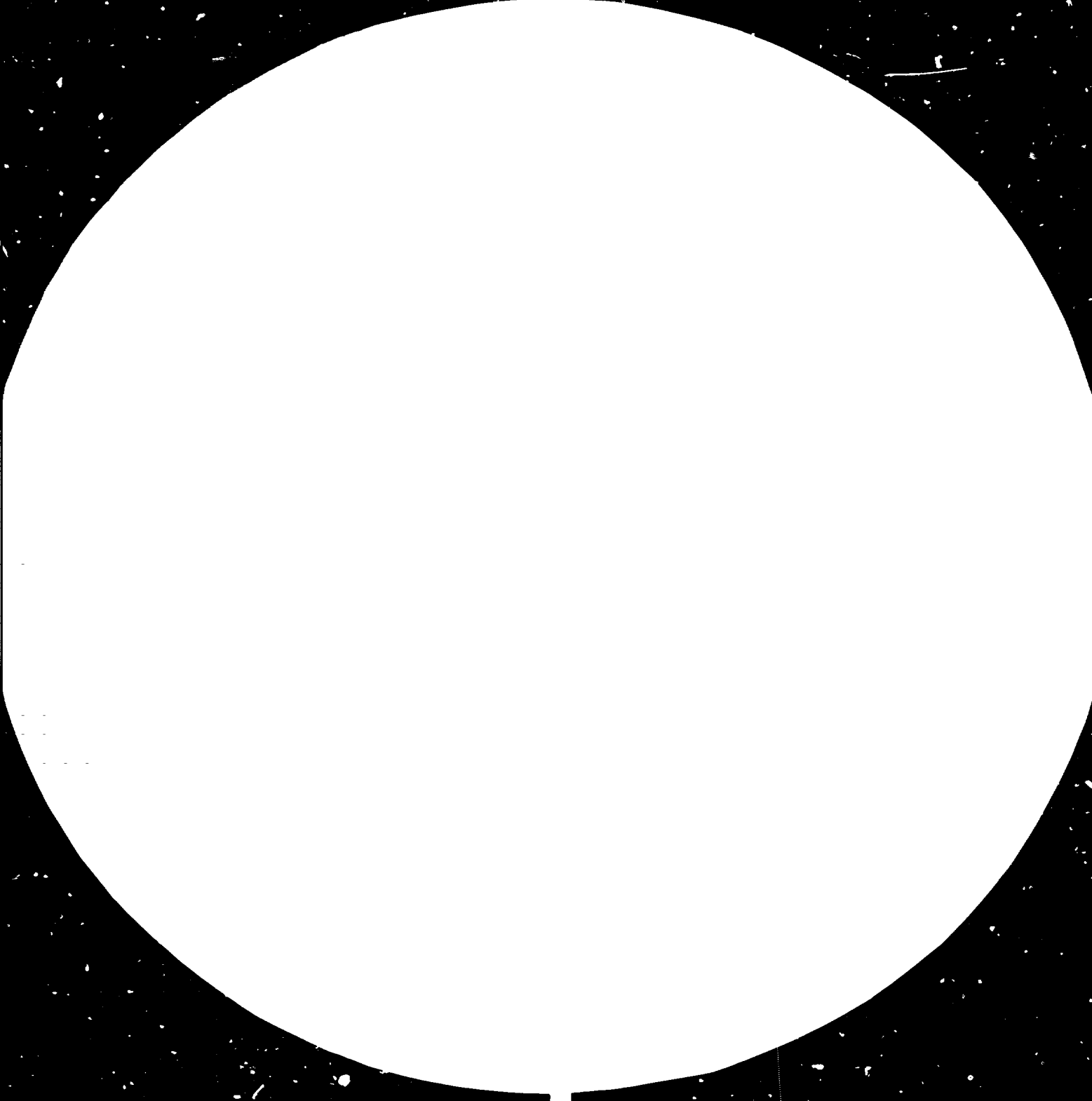
FAIR USE POLICY

Any part of this publication may be quoted and referenced for educational and research purposes without additional permission from UNIDO. However, those who make use of quoting and referencing this publication are requested to follow the Fair Use Policy of giving due credit to UNIDO.

CONTACT

Please contact publications@unido.org for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at www.unido.org





3M Resolution Test Chart 1951A

Resolution Test Chart 1951A





11298



Distr.
LIMITED
ID/WG.357/6
10 February 1982
ENGLISH

United Nations Industrial Development Organization

Research Seminar on Structural Changes in
European CMEA Countries

Budapest, Hungary, 22 - 26 March 1982

SALIENT FEATURES OF STRUCTURAL CHANGES
IN EUROPEAN CMEA COUNTRIES*]

- Discussion Paper -

000070

* This document has been reproduced without formal editing.

The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or its authorities, or concerning the delimitation of its frontiers or boundaries.

Table of Contents

	Page
INTRODUCTION	iii
1. THE PRESENT STRUCTURE OF INDUSTRY AND FOREIGN TRADE	1
2. NEW CHALLENGES TO THE INDUSTRIAL STRUCTURE	21
3. THE CHANGING INDUSTRIAL STRUCTURE IN THE 1980's	29

List of Tables

Table 1. Key indicators of the economic development of CMEA countries between 1950-1978	3
Table 2. Growth of industrial production in two branches between 1950 and 1977	3
Table 3. Structure of industry by groups of countries in 1979	6
Table 4. Percentage shares of industrial branches in the CMEA countries in 1978	7
Table 5. Growth of industrial production by group of countries in different periods	8
Table 6. Relative growth by ISIC division and branches, 1971-1979	9
Table 7. Relative growth coefficients by branches, 1961-70 and 1971-78	11
Table 8. Changes in the capital-output ratio in the industry	13
Table 9. Growth of exports	15
Table 10. Geographical distribution of foreign trade of the socialist countries of Eastern Europe, 1970-1980	17
Table 11. Changes in the production and consumption of energy, 1971-78	23

(cont.)

List of Tables (continued)

	Page
Table 12. Share of the CPE countries and DC's in OECD import and their relative proportion in 1970 and 1977	26
Table 13. Major plan targets and performance for 1976-1980 and targets for 1981-85	40
Table 14. Foreign trade plans and performance in the socialist countries of Eastern Europe	44

INTRODUCTION

Within the research programme on industrial redeployment and structural change, UNIDO initiated a series of studies on the European CMEA countries.^{1/} These studies are to describe the pattern of recent development in industry and to outline major tendencies in the changing industrial production in trade structures in the 1980's in the individual countries. The aim is to eventually consolidate these individual country studies and on this basis to highlight the essential features of the prospective structural changes in industry in the East European region as a whole. Estimates will also be made of the implications of these changes in the context of the international industrial restructuring process.

As one step towards consolidating - and supplementing - the individual country studies, UNIDO is organizing this research seminar, which aims at a compilation of information and an exchange of research findings among economic researchers.

This present paper constitutes a first attempt to review the individual studies and to single out some of the more prominent features of the current and prospective restructuring process in the European CMEA countries. The aim of the paper is to provide an aid for discussion at the seminar and to facilitate the work towards the compilation of a final consolidated report on this area of research.

In the paper it is therefore attempted, as far as possible, to extract information from the completed case studies and to group this information according to the following structure:

- The present structure of industries in CMEA countries and their foreign trade pattern.

^{1/} CMEA: Council of Mutual Economic Assistance

Throughout the paper the term "European CMEA countries" is used to denote the following member countries: Bulgaria, Czechoslovakia, German Democratic Republic, Hungary, Poland, Romania, USSR. It should be noted that Romania is at the same time regarded as a developing country.

- New challenges to the industrial structure.
- The changing industrial structure in the 1980's.

The following individual studies prepared by economic researchers as UNIDO consultants served as a basis for this discussion paper:

- The division of labour between centrally planned economy countries in Eastern Europe and developing countries. IS/197
- Structural changes in Hungarian industry and prospects of division of labour with developing countries. IS/196
- Structural changes in the Czechoslovakian industry and prospects of division of labour with developing countries. ID/WG.357/1
- Structural changes in the Polish industry. ID/WG.357/2
- Structural changes in the USSR industry and prospects of division of labour with developing countries. ID/WG.357/3
- Industrial specialization in CMEA countries. Selected issues. ID/WG.357/4
- Structural changes in manufacturing industries of East European CMEA area and patterns of trade in manufacture between CMEA countries and developing countries. ID/WG.357/5

It should be noted that these papers differ somewhat in terms of scope, approach and data base. Therefore, the studies and their findings are not completely comparable, and this obviously makes it difficult to establish a coherent overview. Moreover, when attempting to analyze the structure and trends in the CMEA countries various methodological and statistical difficulties arise,^{1/} such as the deviations in the statistical grouping of products and branches, the lack of sufficiently

^{1/} These problems are explained in detail in studies ID/WG.357/4 and ID/WG.357/5. As to the tables utilized in this paper it might be necessary to check the methodology applied for the given table at the source indicated.

detailed statistics, and problems of conversion of the values expressed in national currencies into comparable dollar values. Besides the exchange rate difficulties the national price structure also differs from country to country and this has an important bearing on the data on the actual production structure in terms of volume. Additional problems arise when comparing country data with CMEA statistics for the region as a whole. Besides problems of the national price structure, the exchange rates into the commonly used transferable rouble and the conversion of the transferable rouble data into dollar values would add further elements of inconsistency. Other methodological problems may arise in respect of CMEA countries belonging to the group of developing countries. CMEA statistics generally do not include member countries of the CMEA in the group of developing countries. Most of the data used in the above, and especially the trade data, are, however, based on UN statistics which have a different classification.

In the present paper a number of compromises therefore had to be made in terms of statistical classifications. It should be noted that these statistical classifications in no way should be seen as an expression of a country's economic or political structure or its association with various country groupings. For practical reasons the OECD countries are treated here as developed market economy countries, Cuba is included in the group of developing countries, and the denomination of the CMEA region is used to include only European member countries unless specifically mentioned otherwise.

This discussion paper was based on an analysis of the above mentioned case studies. The analysis was carried out by Mr. Tamás Sömjen as UNIDO consultant.

1. THE PRESENT STRUCTURE OF INDUSTRY AND FOREIGN TRADE

The background of the present structure

Although the industrial background, national endowment (including economic resources as well as culture, historical traditions, etc.) and past socio-economic structure of the present CMEA member countries are very different, a number of factors common in the development of all the countries have played a significant role in shaping their present structure.

The material damages of the Second World War that were much more extensive than in all other parts of the world, resulted in a situation where former heritage had a subordinated role in selecting new goals of a transforming society. As the country papers point out, by the end of the 1940's the basic rehabilitation of the war effects had taken place and also the political basis for a socialist type of development had been established. This involved the transformation of the ownership of production means in the industry from private into public - mainly state but also co-operative - ownership, and introduction of the central planning system.

This was the basis for developing a viable economic integration of the CMEA countries' industry. The selected pattern of development at that time accorded priority to the development of the heavy industry. This policy was based on the assumption that industrialization of the region required a substantive indigenous background and could not be built only upon imported technology. To a certain extent the necessary basis for establishing such industry was available. This, however, also meant that not only projects with economic justification were carried out, but that a certain autarchy was also aimed at. This autarchy was pursued not only on a regional but also on a national basis,^{1/} even as regards the smaller CMEA countries.

The dominant feature of the heavy industry and the goal to achieve self-sufficiency were backed by the relatively easy availability of the necessary energy and raw material supply, mainly from the USSR.^{2/} The price

^{1/} See IS/196, p. 9

^{2/} See ID/WG.357/1

system was formulated in such a way that all inputs (including material inputs) should be kept at a low level in order to facilitate the development of the heavy industry, including the productive engineering industries. Under such circumstances industrial branches lacking local raw material resources could seemingly operate economically. A country like Czechoslovakia, having ore and coal reserves, postponed investment in mining and extended iron and steel industry on the basis of imported raw materials. Despite the absence of a raw material basis also other countries, e.g. Hungary and the German Democratic Republic, have been heavily engaged in the establishment of steel production, etc. Only at a later stage of development attempts were made to utilize more rationally the rolling mill facilities in the region by setting up a regional co-ordination office.

At the outset of this industrialization process wide differences in levels of industrial activity existed among the individual countries as well as among sectors within the countries. One aim of development was to reduce such internal discrepancies. In an already industrialized country like Czechoslovakia special attention was paid to the industrialization of the Slovak region, which so far had a relatively low industrial base.^{1/} In Hungary, substantial differences in industrial activity prevailed between the western and eastern part of the country with a high concentration of industry in the area of the capital city. Similar problems were typical also for the other CMEA countries. It was considered that to achieve a better distribution of industry it was not sufficient to pursue a gradual development of existing centres but that rather the establishment of new industrial locations equipped with the necessary infrastructure was required. This approach demanded huge capital outlays and resulted initially in relatively low levels of labour productivity. It seems that the concentration of the labour force from backward agricultural areas to the site of such massive construction work also was regarded as an important step to expose labour to up-to-date techniques and to pave thus the way towards industrial employment.

Another declared major goal of the industrialization and co-operation process was to reduce the differences in the development level of the various CMEA countries. A trend towards equalization can indeed be detected, according to Tables 1 and 2.

^{1/} See ID/WG.357/A, Chapter 1.1

Table 1. Key indicators of the economic development of CMEA countries between 1950-1978 (1950 = 100)

	All CMEA countries*	Bulgaria	Hungary	GDR	Poland	Romania	USSR	CSSR
Net material product	760	1,000	470	590	690	1,300	810	470
Gross agricultural output	250	300	200	220	290	350	260	170
Industrial output	1,200	2,200	830	840	1,400	2,900	1,100	790

SOURCE: Y. Kormnov, Specialization and Co-operation of the Socialist Economies, p. 7 (Progress Publishers, Moscow)

* including Mongolia

Table 2. Growth of industrial production in two branches between 1950 and 1977 (1950 = 100)

	Bulgaria	Hungary	GDR	Poland	Romania	USSR	CSSR
Engineering industries	9,100*	1,300*	1,500*	6,400*	8,900*	2,700*	1,700*
Chemical industries	9,600*	4,000*	1,100*	3,500*	13,800*	2,300*	2,000*

SOURCE: Ibid. p. 44

* rounded figure

Whereas the massive size and economic capability of the USSR continued to play a dominant role, the differences between the two extreme poles within the groups^{1/} as regards the relative levels of development have been reduced to 1:1.77 in terms of per capita NMP, to 1:2 in terms of per capita consumption of electric energy, and 1:3 in terms of the share of the population economically active in agriculture.

Full employment was from the outset incorporated in the national constitutions of the CMEA countries. However, it could be observed that less attention was given to the increase of productivity and to fostering a stringent work organization. The emphasis on full employment could also be seen to have negatively affected the selection of technologies. It was possible to rely on technologies available at that time within the CMEA region, and to utilize the capacities of the rapidly expanding engineering and capital goods industry. In this situation the labour market and the domestic demand, however, provided little challenge to the management to utilize this period for preparing for the next step of development in terms of technology of products and processes.

The expansion of industrial employment was accompanied by an extensive increase in the education level. Illiteracy which was still high in the less developed CMEA countries had been completely eliminated. The general 7-8 years compulsory schooling was introduced and the basis for an up-to-date vocational and higher level training was laid down. A network of R + D institutions had been established. The intellectual and human factors of a science and technology intensive industry had become available.

Features of the present structure

Due to common policies the industrial structure which developed in the various CMEA countries is similar in nature, especially at the branch level.^{2/} The specialization among CMEA countries takes place more at the intra-branch than the inter-branch level.

^{1/} See ID/WG.357/4, Introduction

^{2/} See II/WG.357/4, Chapter 2.1,
and ID/WG.357/5, Chapters 3.3 and 3.4

The agriculture-industry relation is very similar to that of the developed market economy countries (DMEC's) whereas the service sector is much less developed in the CMEA countries. The share of industrially employed in the CMEA countries in 1978 was 30 per cent or more (in the FRG 38%, in the UK 33%, in France 28% and in the USA 25%). The branch structure of the CMEA industry as a whole is characterized by the predominance of heavy manufacturing industry with the electrical and engineering industry carrying the highest weight. (See Table 3)

The share of industrial branches in total value added in the individual CMEA countries (1978) is given in Table 4. (While Table 3 is based on ISIC, Table 4 uses CMEA classification. Besides the difference in the year, one reason of discrepancy between Table 4 and data given in the study "Structural changes in manufacturing industries in the European CMEA area and patterns of trade in manufactures between CMEA countries and DC's" - ID/WG.357/5 - is that the latter gives a breakdown of manufacturing industry only while Table 4 embraces total industrial activity. Table 4 has been chosen for comparative reasons. These figures should be interpreted with caution.)

One may assume that the low share of engineering industry shown in the structure of the USSR industry is not only due to the high share of primary industries but also to the specific Soviet price structure. This assumption is reinforced by the high share of the textile and clothing industries and in the food industry. In this latter branch Bulgaria has the highest share, which can be seen as a correct reflection of the rapid development achieved in this branch. In the Hungarian structure food industry has a relatively low share in spite of well known achievements in agriculture. The reason is, besides the already mentioned price structure problem, possibly the fact that their development in the food processing industry is somewhat lagging behind the increased agricultural output. The chemical industry has the highest structural share in Hungary in spite of the lack of indigenous raw materials. This contradiction might be explained by the high demand for chemicals in agriculture and the importance of the pharmaceutical industry with its high value added. It can also be stated that this share corresponds to the world averages. Despite rapid increases of this branch in the region as a whole, the share of other CMEA countries is relatively low in terms of world levels. The differences

Table 3. Structure of industry by groups of countries in 1979
(value added weights by ISIC divisions and branches)

Division, Branch	World	CMEA coun- tries	Developed market economies	Developing countries
Mining	12.5	9.4	6.0	42.1
Manufacturing	81.3	37.9	86.6	53.9
Light manufacturing	27.5	29.0	28.1	22.8
Heavy manufacturing	54.3	58.9	58.5	31.1
Electricity, gas and water	5.7	2.7	7.4	4.0
TOTAL	100.0	100.0	100.0	100.0
Coal	1.5	2.6	1.4	0.3
Crude petroleum and natural gas	8.8	4.3	3.0	38.5
Metal mining	0.9	0.7	0.7	1.9
Food, beverages, tobacco	10.1	10.7	9.9	10.5
Textiles	4.1	5.3	3.1	2.3
Wearing apparel, leather and footwear	3.5	5.4	3.5	4.7
Wood products, furniture	2.9	2.6	3.3	1.6
Paper, printing, publishing	5.0	1.5	7.0	2.4
Chemicals, petroleum, coal and rubber products	12.6	9.8	13.8	12.9
Non-metallic mineral products	4.0	5.4	3.6	2.9
Basic metals	6.0	6.7	6.4	3.6
Metal products	32.0	38.3	34.6	12.5

SOURCE: UN Monthly Bulletin of Statistics
Quoted from ID/NG.357/4, Table 19

Table 4. Percentage shares of industrial branches in the CMEA countries 1978

Branch	Bulgaria	Czecho- slovakia	GDR	Hungary	Poland	Romania	USSR
Electricity	2.5	3.3	5.7	5.6	2.3	1.8	3.0
Fuel	3.5	7.4	5.9	7.8	5.7	4.4	6.2
Iron and steel	4.0	8.7	5.4	6.7	6.4	7.8	-
Non-iron metals	-	2.6	2.4	3.2	3.6	3.4	-
Engineering industries	28.2	29.2	32.7	30.8	33.9	33.2	25.0
Chemicals	8.1	8.5	10.8	12.4	9.3	9.5	7.6
Building materials	4.1	3.6	2.1	2.0	2.8	3.6	4.0
Wood	3.1	4.2	3.0	2.8	3.8	4.4	3.6
Paper	1.3	1.3	1.7	0.7	1.1	1.4	0.3
Glass	0.9	1.4	1.0	1.0	1.0	0.6	0.5
Textiles	7.5	5.1	5.6	4.5	7.1	8.3	10.2
Clothing	3.1	1.7	1.8	2.3	3.3	3.5	4.2
Leather and shoe	1.4	2.5	1.6	1.8	1.3	2.1	1.7
Printing	0.5	0.6	0.6	1.0	0.4	0.2	-
Food	21.7	14.4	16.7	14.5	15.4	13.8	18.8

SOURCE: CMEA statistics
Quoted from ID/WG.357/4, Table A.11

in shares of paper and wood industries may be attributed mainly to the natural endowments. However, the low share of paper industry in the whole region in comparison to DMCC's is first of all due to an underdevelopment of the packaging industry. The relatively high share of leather and glass industries in Czechoslovakia is a reflection of traditions (see Table 4).

The growth of industrial production as a whole in the CMEA countries has surpassed in any given period that of other groups (see Table 5).

Table 5. Growth of industrial production by group of countries in different periods (per cent)

Group	Period		
	1960/1977	1960/1970	1970/1977
World	273	192	142
Developed Market Economy Countries	221	175	126
Developing Countries	310	200	155
CMEA	414	238	174

Source: Handbook of International Trade and Development Statistics (Table 6.7)

A more detailed comparison (see Table 6) between relative growth of different branches in the period 1971-79 shows that within the various branches in the CMEA countries the manufacturing industry had a slightly higher growth than the average. The dynamics of heavy manufacturing of the developing countries is even higher than in the CMEA countries. Light manufacturing, particularly that of textiles and clothing, was increased in CMEA not only below the average industrial development pace but the relative growth was smaller than either in DC's or in DMCC's.

Table 6. Relative growth by ISIC division and branches,
1971-1979

Division, Branch	World	CMEA coun- tries	Developed market economies	Developing countries
Mining	0.85	0.79	0.90	0.82
Manufacturing	1.02	1.03	1.00	1.13
Light manufacturing	0.92	0.85	0.94	0.98
Heavy manufacturing	1.06	1.13	1.02	1.28
Electr city, gas and water	1.08	0.92	1.13	1.42
Coal	0.70	0.70	0.67	0.83
Crude petroleum and natural gas	0.93	0.90	1.13	0.85
Metal mining	0.09	0.65	0.68	0.70
Food, beverages, tobacco	0.88	0.79	0.96	1.02
Textiles	0.89	0.83	0.86	0.90
Wearing apparel, leather and footwear	0.36	0.82	0.86	0.99
Wood products, furniture	0.86	0.86	0.94	0.77
Paper, printing, publishing	1.04	0.84	0.93	1.23
Chemicals, petroleum, coal and rubber products	1.09	1.08	1.14	1.24
Non-metallic mineral products	0.90	0.91	0.98	1.22
Basic metals	1.02	0.84	0.86	1.17
Metal products	1.15	1.26	1.04	1.40
Industry	1.00	1.00	1.00	1.00

SOURCE: UN Monthly Bulletin of Statistics, November 1980
Quoted from ID/WG.357/4, Table 20

The foremost significant feature in the growth in the individual CMEA countries (see Table 7) is that both engineering and chemical industries were showing during the whole period 1961-1978 a considerably higher growth coefficient than the industrial average. In some cases the chemical industry developed more than two times faster than the industrial average. Though to a lesser extent, glass industry has been growing also above, or close to, the industrial average almost continuously in all countries. Even less, but still - with the exception of Hungary - a considerable growth was experienced in building materials industry. Paper industry has grown above the average during the whole period in Bulgaria and Hungary, in Czechoslovakia between 1971-1978 and in Romania between 1961-1970. Leather and textile industries were below average in all countries. In most cases clothing industry showed higher growth than textiles; nevertheless, with the exception of Poland and Romania, its rate remained below the industrial average. Food industry had in almost all countries the lowest growth. It is interesting to note that deviations from the industrial average became considerably smaller in all countries during the period of 1971-78 in comparison to that of 1961-1970.^{1/}

In the process of industrial growth the increase of labour productivity is supposed to play an important role since the inflow of new labour force to industry is decreasing in all countries. In the 1950's an average yearly increase of industrial employment of over 4 per cent was experienced in the CMEA countries with the exception of GDR (2.4 per cent) and Czechoslovakia (3.5 per cent). This growth was even over 6 per cent in the case of Bulgaria. By the end of the seventies, however, with the exception of Romania and the USSR, the increase in labour productivity dropped to under 1 per cent and showed an absolute decrease in Hungary.^{2/}

Productivity increase is considered insufficient in the CMEA countries. While differences in the labour supply of the individual countries could warrant also a considerable difference in the productivity increase, the annual growth of labour productivity remained in a relatively narrow range for all countries of CMEA, i.e. between 5.5 and 6.9 per cent per annum for

^{1/} Further analysis and data on this question are to be found in the documents prepared for the meeting, in particular ID/WG.357/4 and ID/WG.357/5

^{2/} See ID/WG.357/4, Chapter 1.3

Table 7. Relative growth coefficients by branches, 1961-70 and

Branch	Bulgaria		Czechoslovakia		GDR	
	1961-1970	1971-1978	1961-1970	1971-1978	1961-1970	1971-1978
Electricity	1.26	0.93	1.12	0.99	0.95	0.97
Fuel	1.62	0.89	0.92	0.81	0.92	0.86
Iron and steel	2.62	1.20	0.90	0.89	0.82	1.00
Non-iron metals	-	-	1.10	0.91	1.02	0.99
Engineering industries	1.62	1.47	1.19	1.15	1.20	1.05
Chemicals	2.00	1.21	1.47	1.22	1.10	1.11
Building materials	1.21	1.06	0.92	0.99	1.02	1.00
Wood	0.58	0.77	0.88	1.01	0.82	1.03
Paper	1.21	1.05	0.84	1.01	0.86	0.93
Glass	1.55	0.98	1.08	1.02	0.95	1.06
Textiles	0.68	0.88	0.82	0.91	0.75	0.92
Clothing	0.92	0.91	0.90	0.83	0.72	0.84
Leather and shoe	0.83	0.76	0.93	0.92	0.90	0.97
Printing	0.76	0.79	1.17	0.87	0.79	0.84
Food	0.76	0.80	0.79	0.86	0.76	0.89
Industry	1.00	1.00	1.00	1.00	1.00	1.00

SOURCE: CMEA statistics
Quoted from ID/WG.357/4, Table A.13

the total period of 1951-1979. In Hungary the rate was merely 4.3 per cent, due mainly to a very low increase especially in the 1950's but also in the 1960's. In the first half of the 1970's generally an acceleration of productivity increase manifested itself while towards the end of the decade it slowed down, except in Romania.^{1/} The productivity of the region is according to all estimations lower than that of the DMEC's. Data from Hungary indicate that productivity in this country is only about half of that of DMEC's.^{2/} The differences in the case of GDR, CSSR and USSR are presumably smaller, yet considerable.

In the CMEA countries - with the exception of the GDR - structural shifts in production contributed to the overall growth of productivity. Shifts in the employment structure played a minor role in this respect. Thus productivity growth was mainly a result of increased productivity within the branches. In the textile industry, high productivity gains led to a significant reduction of manpower in the GDR.^{3/}

The development of labour productivity by branches has been rather uneven in CMEA countries. One has to assume that besides the applied technology, management, labour efficiency, etc. also the change in the product mix and the choice of pursued internal objectives of development have contributed to those differences.

The ratio of accumulation in CMEA countries in the last two decades was relatively high in international comparison. Although a decline of the ratio has been experienced in several countries towards the end of the seventies, the average of the years 1976-78 ranged from 22.5 per cent of the national income in the GDR to 36.9 per cent in Romania. Problems in investment productivity are revealed in the changes of the capital/output ratio, shown in Table 8.

1/ See ID/WG.357/4, Table 9

2/ See *ibid*, Chapter 1.3

3/ See ID/WG.357/5, Chapter 4.1

Table 8. Changes in the capital-output ratio in the industry
(average rates of growth per annum in per cent*)

Country	1961-65	1966-70	1971-75	1976-78	1961-78
Bulgaria	3.6	2.3	0.6	1.9	2.1
Czechoslovakia	0.7	-2.0	-0.2	1.4	-0.3
GDR	-	-1.0	0.5	0.6	0.0**
Hungary	1.0	-0.1	1.5	2.9	1.1
Poland	-2.3	-0.8	-1.0	4.0	-0.5
USSR	2.6	0.5	1.2	1.5	1.5

SOURCE: CMEA statistics
Quoted from ID/WG.357/4, Table 14

* With the exception of the GDR state-owned and co-operative industry only. The output and capital measures are gross. Data on Romania are not available.

** Average 1966-78

[Detailed data by country and branches are to be found in ID/WG.357/5]

Gross investment in manufacturing industries grew in most countries at a faster rate than gross output. Thus during the period 1966-1979 the incremental gross investment-output ratio increased. The investment efficiency declined in Bulgaria, GDR, Hungary, Poland and Romania, improved, however, in Czechoslovakia and USSR.

The behaviour of the incremental gross capital-output ratio by branches is especially notable in the second half of the seventies. There was an absolute decline of gross investment in many branches while the growth rate of output diminished in almost all branches of the countries, but the output did not decline in absolute terms. As a result in this latter period the incremental investment-output ratio improved in most branches, including light and food industries which showed a different performance in all the previous sub-periods.

Capital intensity varies greatly between branches but similarity is evident between country patterns. Chemicals, pulp and paper, and construction materials are generally characterized by relatively high capital intensity. It is noticeable that machine building especially in the more

advanced CMEA countries shows a below-average level of relative capital intensity. Also it is noteworthy that the capital intensity is high in the food industry.

The role of intra-CMEA specialization and co-operation in shaping the present structure and trade pattern

While a relative convergence of the branch structure of the CMEA countries can be observed, an increasing branch specialization has also taken place. Specialization was undertaken with the objective of improving labour and production organization, concentrating R + D, increasing efficiency in investment and attaining an optimum scale of production. The division of labour among CMEA countries is based on long-term plans and agreements.

As discussed above, intra-branch specialization is a predominant feature within CMEA countries. Due to the lack of sufficiently detailed production data it is, however, not possible to have a complete analysis of the intra-branch specialization. Specialization is most advanced in the engineering industry and more on the product level than on the level of sub-branches. A certain trend to equalization even in the sub-branch level - at least in the past development - could be detected. For example, the machine tool industry, the automotive industry, and the instruments industry are emerging as growth industries in all countries. Country studies reveal a great specialization in terms of products. In the case of Bulgaria, about two thirds of the machinery export to the region were based on specialization agreements in 1979.^{1/} In the case of Hungary, the corresponding figure is 44 per cent. This includes 81 per cent of the delivery of lifting devices and conveyors, 60 per cent of vehicles but only 20 per cent of mining, metallurgy and oil industry equipment.^{2/} 271 agreements on specialization concluded by the CSSR covered 30 per cent of the country's machinery exports.^{3/} The engineering industries of the CSSR and of the USSR have an important role in supplying the region with heavy engineering equipment. About 30 per cent of the USSR machinery exports to the CMEA market are based on specialization agreements.

^{1/} See ID/WG.324/8

^{2/} The Impact of Co-operation Among CMEA Member Countries on the Capital Goods Industry. Development in Hungary. (under preparation)

^{3/} See ID/WG.357/1, Chapter 2.5

Altogether about 10,000 products of the machinery and electrical engineering industry are covered by bilateral or multilateral specialization agreements.^{1/} Also other branches - though to a lesser extent - are subject to an increasing specialization, for instance through a product-by-product approach. In certain cases it is attempted to abandon complete lines of products. In such cases one might assume an explicit structural policy at a micro level. Other agreements seem to be based on more ad hoc decisions, available capacities etc. rather than on a consistent structural policy.

Although the economic advantages of the individual specialization agreements obviously are carefully examined by the decision-makers, changing economic conditions might reduce the benefits for some of the partners. Such changes are practically unavoidable in any long-range arrangements. A more systematic selection of the specialized products seems to be essential for ensuring long-term coherence. Another problem is that the agreements are interwoven with a very intricate balance of the mutual trade. Thus the termination of one agreement might be difficult since it might upset the balance in other areas. While the specialization may positively contribute to the productivity, a rigidity in the system might hamper the necessary structural changes and might discourage its own further expansion.

Despite specialization efforts, production to the national markets is still far more important than export production, although naturally the export intensity differs from country to country and among product groups. Table 9 shows that export growth of the CMEA countries was slower than that of other groups. The increase of exports to the member countries was somewhat faster than to other areas. A modification of this trend appeared in the 1970's when global export growth surpassed the increase of intra-regional trade.

Table 9. Growth of exports (industrial products, SITC 5-8, in per cent)

	World	Developed market economies	Developing countries	CMEA	
				To world	Intra CMEA
1960-1977	1,045.9	962.0	1,440.0	721.1	738.8
1960-1970	288.6	292.7	342.4	247.2	253.9
1970-1977	362.4	328.7	420.6	294.1	290.9

SOURCE: UNCTAD Handbook of International Trade and Development Statistics

^{1/} See ID//G.357/3, Chapter 3.1

While the share of the intra-regional trade was somewhat declining in the 1970's, the importance of the regional market continued to grow for the machinery exports. In 1960 65.4 per cent of the machinery exports of the member countries were destined to the CMEA market. This share increased to 72.7 per cent in 1970 and grew further to 73.9 per cent in 1977, while the value of this increased over nine times. The role of the intra-regional market remained predominant. The lowest importance was for non-ferrous metals where the share in 1977 was just over 50 per cent.

Trade with developing countries

The CMEA countries increased their trade considerably with the developing countries over the 1970's in value terms. According to UNCTAD figures (based on national statistics), the annual average growth rate was higher than that of the intra-regional trade, and as far as exports are concerned also higher than exports to DMEC's. Thus the share of developing countries in the total export of CMEA increased from 15.4 per cent in 1970 to 19.3 per cent in 1980, and in import from 11.6 per cent to 15.9 per cent^{1/} As to the individual member countries, Table 10 shows the shares and changes.

In view of the slower trade dynamism of the CMEA countries, and in spite of the increased value, in comparison with the growth of the world trade and also that of DC's, the share of CMEA in the export of DC's dropped from 4.3 per cent in 1977 to 3.2 per cent in 1979; in imports, the role of CMEA was reduced from 6.3 per cent to 5.4 per cent (see Table 10).

The composition of the trade reflects partly a difference in development level but the disproportion is also due to other factors. The high share of machinery in CMEA exports is certainly connected with the industrial structure of the CMEA countries. The export pattern is closer to that of their intra-regional trade. Manufactured products represented 65.3 per cent of their export within the CMEA and 46.7 per cent to DC's in 1979. In the USSR exports this ratio is only 29.6 per cent while in other East European countries it is reaching 78 per cent. However, in the

^{1/} UNCTAD TD/B/859 Add.1. A similar trend is reflected in the GATT 1980/81 trade report though with lower shares.

Table 10. Geographical distribution of foreign trade of the socialist countries of Eastern Europe, 1970-1980

Value in millions of dollars (f.o.b.)

Country	Exports					Imports				
	1970	1975	1978	1979	1980	1970	1975	1978	1979	1980
BULGARIA										
Total trade	2 004	4 682	7 557	8 425	9 800	1 831	5 390	7 728	8 051	9 041
<u>of which with:</u>										
Developing countries	187	649	1 067	1 103	1 561	138	362	439	493	563
per cent of total	9.3	13.9	14.1	13.1	15.2	7.5	6.7	5.7	6.1	6.3
Developed market-economy countries	285	474	781	1 337	1 655	350	1 289	1 176	1 258	1 558
per cent of total	14.2	10.1	10.3	15.9	16.9	19.1	23.9	15.2	15.5	17.2
Socialist countries	1 532	3 559	5 709	5 985	6 584	1 343	3 747	6 113	6 340	6 915
per cent of total	76.5	76.0	75.6	71.0	67.2	73.4	69.4	79.1	78.4	76.5
CZECHOSLOVAKIA										
Total trade	3 792	7 814	10 655	13 198	15 766	3 695	8 495	11 403	14 252	15 340
<u>of which with:</u>										
Developing countries	510	1 009	1 249	1 531	2 324	378	819	893	1 143	1 387
per cent of total	13.4	12.9	11.7	11.6	14.7	10.2	9.6	7.8	8.0	9.0
Developed market-economy countries	783	1 563	1 986	2 696	3 600	916	2 098	2 674	3 483	3 879
per cent of total	20.6	20.0	18.6	20.4	22.8	24.8	24.7	23.5	24.4	24.8
Socialist countries	2 499	5 242	7 420	8 971	9 852	2 401	5 578	7 836	9 626	10 143
per cent of total	66.0	67.1	69.7	68.0	62.5	65.0	65.7	68.7	67.6	66.1
GERMAN DEMOCRATIC REPUBLIC										
Total trade	4 581	10 088	13 267	15 063	...	4 847	11 290	14 572	16 214	...
<u>of which with:</u>										
Developing countries	340	770	1 194	1 310	...	291	789	1 137	1 103
per cent of total	7.4	7.6	9.0	8.7	...	6.0	7.0	7.8	6.8
Developed market-economy countries	1 003	2 263	2 614	3 134	...	1 295	3 281	3 715	4 994	...
per cent of total	21.9	22.4	19.7	20.8	...	26.7	29.0	25.5	30.8	...
Socialist countries	3 238	7 055	9 459	10 619	...	3 261	7 220	9 720	10 117	...
per cent of total	70.7	70.0	71.3	70.5	...	67.3	64.0	66.7	62.4	...

Table 10 (continued)

Country	Exports					Imports				
	1970	1975	1978	1979	1980	1970	1975	1978	1979	1980
HUNGARY a/										
Total trade	2 317	4 189	6 345	7 939	8 677	2 505	5 573	7 902	8 674	9 235
<u>of which with:</u>										
Developing countries	208	577	886	1 041	1 154	246	616	846	938	1 108
per cent of total	9.0	13.8	14.0	13.1	13.3	9.8	11.0	10.7	10.8	12.0
Developed market-economy countries	627	1 368	1 928	2 642	3 046	673	1 917	3 042	3 322	3 712
per cent of total	27.0	32.7	30.4	33.3	35.1	26.9	34.4	38.5	38.3	40.2
Socialist countries	1 492	2 244	3 531	4 256	4 477	1 586	3 040	4 014	4 413	4 414
per cent of total	64.0	53.5	55.6	53.6	51.6	63.3	54.6	50.8	50.9	47.8
FIJIANE										
Total trade	3 548	10 289	14 114	16 249	16 800	3 607	12 545	16 089	17 584	18 870
<u>of which with:</u>										
Developing countries	326	1 083	1 440	1 665	2 062	260	802	1 207	1 847	2 226
per cent of total	9.2	10.5	10.2	10.2	12.3	7.2	6.4	7.5	10.5	11.8
Developed market-economy countries	1 024	3 278	4 418	5 070	5 723	938	6 199	6 452	6 541	6 472
per cent of total	28.9	31.9	31.3	31.2	34.0	26.0	49.4	40.1	37.2	34.3
Socialist countries	2 198	5 928	8 256	9 514	9 015	2 409	5 544	8 430	9 196	10 172
per cent of total	61.9	57.6	58.5	58.6	53.7	66.8	44.2	52.4	52.3	53.9
ROMANIA										
Total trade	1 851	5 341	8 077	9 724	12 230	1 950	5 342	8 910	10 916	13 200
<u>of which with:</u>										
Developing countries	235	1 115	1 583	1 891	2 685	169	820	1 693	2 041	4 298
per cent of total	12.7	20.9	19.6	19.5	22.0	8.6	15.4	19.0	18.7	32.6
Developed market-economy countries	596	1 873	2 722	3 700	4 520	776	2 260	3 475	4 694	4 148
per cent of total	32.2	35.0	33.7	38.1	37.0	39.6	42.3	39.0	43.0	31.4
Socialist countries	1 020	2 304	3 772	4 133	5 025	1 015	2 210	3 742	4 181	4 754
per cent of total	55.1	43.1	46.7	42.5	41.0	51.8	41.3	42.0	38.3	36.0

Table 10 (continued)

Country	Exports					Imports				
	1970	1975	1978	1979	1980	1970	1975	1978	1979	1980
USSR										
Total trade	12 800	33 328	52 400	64 701	76 630	11 732	36 989	50 760	57 771	68 619
<u>of which with:</u>										
Developing countries	2 948	7 201	12 752	14 648	16 818	2 011	7 164	8 894	9 631	13 481
per cent of total	23.0	21.6	24.3	22.6	22.0	17.1	19.4	17.5	16.7	19.7
Developed market-economy										
countries	2 456	8 568	12 913	19 515	25 045	2 852	13 536	16 229	20 350	24 437
per cent of total	19.2	25.7	24.7	30.2	32.7	24.3	36.6	32.0	35.2	35.6
Socialist countries	7 396	17 559	26 735	30 538	34 767	6 868	16 289	25 637	27 790	30 701
per cent of total	57.8	52.7	51.0	47.2	45.3	58.6	44.0	50.5	48.1	44.7

Source: TD/B/854/Add.1 (from National statistics of the socialist countries of Eastern Europe)

a/ Imports c.i.f.

exports to OPEC countries also the Soviet manufacturing industry represented nearly 50 per cent. One may assume that this is partly due to the capabilities of the Soviet industry in the field of oil and other primary production equipment. It is also noteworthy that SITC group 7 is higher in the export of the USSR to the DC's than in other CMEA countries. Thus a considerable difference within the composition of manufacturing export can be observed.

Looked at from the side of the developing countries, one explanation for the low share of the manufactures in the exports of the developing countries to the CMEA may be the absence of trade tradition, the lack of mutual knowledge about market possibilities and the range of goods available from the DC's, while another is the preference of the developing countries for importing certain goods from the developed market economies. From the side of the CMEA countries, the explanatory factor is the need for the East European countries to obtain supplies of raw materials and fuels from the developing countries to fuel their own industrialization process. Also the fact has to be noted that, according to UN calculations, a significant share of the manufacturing trade of the DC's is carried out in the intra-firm trade of transnational companies.

A high degree of country concentration can be observed in the trade of the CMEA with DC's. More than 50 per cent in the trade of each CMEA country is carried out with the five most important trading partners. 70 per cent of trade was transacted with only 12 developing countries. Since the USSR accounts for more than 60 per cent of total CMEA trade with the DC's, this concentration is first of all determined by the geographical concentration of Soviet trade. Nevertheless a similar concentration is experienced in the other CMEA countries though some deviation as to the leading partners can be detected. For example, a traditional great share of Soviet trade is carried out with Afghanistan, Sri Lanka, while in case of Hungary trade with these countries is negligible. Other countries like Iraq, India, Iran, Algeria, Brazil are in the foreground of the trade in all countries, though the relative ranking varies among countries.

Lately some of the non-traditional partners are increasing their share in trade with CMEA. This is observed in South-East Asia, African countries south of the Sahara and several Latin American countries. Their shares are generally modest but an appreciable dynamism of the trade is performed.

2. NEW CHALLENGES TO THE INDUSTRIAL STRUCTURE

The industrial structure of the CMEA countries was established under premises and conditions of a defensive strategy which relied mainly on import substitution and continuously growing capacities. With the rapid changes in world economy and the development of the international division of labour this structure seems to be challenged, particularly in the case of the smaller countries relatively poor in raw materials and energy and which have a home market of small absorptive capacity. An overview of these challenges is given in this chapter.

Slow-down of dynamism

Performance of the previous plan period as well as targets of the present planning period are signalling a slow-down of the dynamism. From the point of view of future economic policy especially high significance seems to be attributed to the differences between plan and performance in the last period. It indicates that hitherto hidden or not fully appreciated constraints have an increased influence on the economy.

Internal factors indicating a need for change

Industrial growth was for a long period conceived as the extension of productive capacities and based on absorbing manpower from primary sectors and newly employed workers. It seems to be evident from the background papers that the growth in supply of industrial manpower decreased significantly. Neither unemployed females nor agricultural labour is any more available for industrial activity, especially in the view of an increasing service sector. The problem is aggravated by a slower growth rate of the population in the region.

It seems that so far industrial management was trying to obtain the required additional labour with the help of local influence by absorbing smaller companies etc. whereas little effort was made to increase productivity, or to re-allocate the available labour force to more productive activity. The simultaneous existence of an overemployment could probably be explained by the relative low cost of labour and the

high and increasing cost of the up-to-date technical equipment as well as difficulties of acquiring it. A further constraint seems to be that the resources of individual factories might be too limited to permit significant reconstruction.

Energy and raw materials

Another new feature coming into the fore in the 1970's was the end of the supply of cheap raw materials. The price increase of oil and other raw materials proved not to be a temporary phenomenon and, as the price system of CMEA trade is related to the world market, those increases had a significant impact. The world market's greater price mobility thus influenced the prices of raw materials in the intra-CMEA trade. The new system of yearly gliding prices, based on the previous five years' average, is intended to exclude rigidity while also hindering the penetration to the internal trade of purely market speculation effects. This leads to a price level within CMEA, which adjusts to the one prevailing on the world market with a time lag.

The impact of the world prices was reinforced by the diminishing supply of these raw material resources - mainly fuel but also iron and metallic ores, wood, etc. from the USSR. The extraction costs are higher and usually substantial initial investment outlay to open up new deposits is also required. This led already in the earlier part of the seventies to some joint CMEA investment projects. The cost for the importing countries increased substantially both through the contribution to the investment and through the increasing purchase price. The new price relations led to a re-assessment of the structure of industry which was established on the basis of high consumption of energy and raw material. Besides the USSR the only other major energy exporter in the region is Poland. Recent problems of meeting production targets and the need to export coal to the West for the reasons of debt service endanger the supplies to the other CMEA countries.

All data point to the fact that the per capita consumption of energy in CMEA countries is higher than in countries with larger GDP's (see Table 11). This is not due to higher consumer consumption but to the industrial utilization. The high energy intensity is attributed both to the structure and the technology of industry. It is also noteworthy that energy consumption continued to increase even in the late seventies. Although the growth rate was lower than previously it still surpassed

Table 11. Changes in the production and consumption of energy, 1971-78 (rates of growth p.a. in per cent)

Group of countries, periods	GDP*	Primary energy production	Consumption of		Per capita consumption of commercial energy
			total commercial energy	liquid fuels	
World					
1971-73	6.0	4.8	4.8	7.1	2.9
1974-78	3.0	2.1	2.5	2.0	0.7
CMEA countries					
1971-73	6.6	4.2	4.5	1.4	3.6
1974-78	5.5	4.8	4.1	2.1	3.2
Developed market economies					
1971-73	5.1	1.4	4.1	6.3	3.1
1974-78	1.8	0.2	0.5	0.3	-0.2
Developing countries					
1971-73	6.3	8.9	8.0	9.2	5.4
1974-78	5.0	0.8	6.6	6.5	4.0

SOURCE: World Energy Supplies 1973-78, UN 1979
 Quoted from ID/WG.357/4, Chapter 1.5

* In case of the CMEA countries RSP

that of the DMEC's. A strong impact of the oil price increase is felt by Romania. Here the once important domestic resources have been nearly depleted, an oil processing capacity well in excess of the domestic demand was kept running by oil imported from outside the CMEA region.

Science and technology

Technological progress was a major source of economic and industrial growth in CMEA. All countries - first of all the USSR - have a large R + D potential. In the CSSR the number of employees in scientific and research bases reached 111,000 persons and the ratio of R + D personnel in comparison with the total number of employees increased from 3.72 per cent to 4.41 per cent between 1971 and 1979.^{1/} A close co-operation within CMEA in the field of science and technology is aimed at as well as a change in the licence policy. While in previous periods exchange of technological know-how and other information was taking place exclusively on a free of charge basis among member countries, it was recognized that the flow of these can be accelerated by trade methods. Purchases of licences from outside the region have also been stepped up.

Nevertheless introduction of new technology is lagging behind. Innovative processes and especially the speed of applying and spreading the output of the research is slower than required by the accelerated technical development in the world.^{2/} As is indicated in the country studies, a quicker change in the products and production technology is needed than hitherto to compete on the world market, especially under the new price conditions, and to offset constraints on labour resources and raw material and fuel supplies.

1/ See ID/WG.357/1, Chapter 2.4

2/ As an example the system of continuous steel casting was recently quoted which is spread all over the world on the basis of a licence obtained from the USSR. Nevertheless a lower proportion of steel is produced in the USSR on this method than in other countries. As a result energy is wasted.

Increased service sector

The increased standard of living tended to increase the demand on the service sector. As a result this sector is competing with industry to acquire labour force and investment means.

An increased service sector (including trade, health, service of durable consumer goods, etc.) is also influencing the industrial product mix. It also became evident that the behaviour of the individual consumer is less predictable than that of the industry and that as a consequence planning and production require increasing flexibility.

Agricultural sector

Also the consumption and diversification of agricultural products require substantial investment and larger quantities of more effective and partly new type of industrial inputs than hitherto. The need for an extension of processing capacities represents new challenges. In view of the growing importance of consumer demand, planners are likely to follow more closely the complex consumer market.

Employment and social aspect

The lack of additional labour force is among the primary motives towards reshaping industry. A much higher labour mobility is required, realizing that the right to work does not mean a right to work at the same enterprise irrespective to its profitability. The new technology introduced often requires re-orientation of the acquired skills.

The income policy in the CMEA countries is characterized by a relative high proportion of social benefits received over the wages. Centrally allocated social benefits like health service, pensions, etc. are important elements of social security, but a wide range of benefits is offered through the enterprises and they might depend upon the profitability of the given company.

External challenges

With the exception of the USSR and, to a lesser extent, Poland terms of trade deteriorated for all countries of the region over the 1970's. In case of Hungary, the deterioration amounted to 18 percentage points between 1970-77.^{1/}

The fact that the CMEA countries were not able to offset the impact of the raw material price increases is probably a reflection of the structural pattern of industry. Manufactured exports have generally a lower content of innovative intellectual input than goods from other advanced countries. Therefore competition is drastically increasing on the international market.

Products of the CMEA countries are also confronted with a growing competition from DC's. This is shown in Table 12.

Table 12. Share of the CPE countries and DC's in OECD import and their relative proportion in 1970 and 1977

SITC	1970			1977		
	Share in total import %		Proportion CPE/DC	Share in total import %		Proportion CPE/DC
	CPE	DC		CPE	DC	
0,1,2,3,4,9	4.8	40.7	0.12	4.8	54.0	0.09
5	2.6	4.6	0.57	3.2	4.1	0.78
6	3.0	13.1	0.23	3.5	12.5	0.28
7	0.2	1.7	0.48	1.1	4.5	0.24
8	2.2	13.2	0.16	3.2	22.5	0.14
5 -- 8 together	1.9	7.5	0.26	2.4	9.7	0.24
<u>TOTAL trade</u>	3.1	20.5	0.15	3.4	21.2	0.12

Source: Structural changes in industry ID/266, Table 7

^{1/} See IS/196, Table A.7

Total imports from CMEA countries were significantly smaller than from the DC's and the share in SITC groups 7 and 8 was reduced in favour of the DC's. This seems to indicate that countries with lower wages and sometimes also lower raw material costs could make market gains. However, also the effects of the preferences rendered to the products of DC's under the Generalized System of Preferences have to be taken into account.

Undoubtedly the present economic difficulties of the DNEC's hamper CMEA exports even of goods which are technically advanced or products for which new capacities have recently been created. Price and currency fluctuations as a result of the market situation are creating an unexpected pressure on the foreign trade of the CMEA countries.^{1/}

The general uncertainty regarding international developments may prompt economic planners to be very careful when deciding the degree of dependence on outside supply.

The foreign trade balance of the CMEA countries has deteriorated and a considerable international indebtedness has accumulated. Endeavours for a structural improvement through increased borrowing do not seem to have brought about the desired results due to the unexpected external factors and sometimes also to the slow rate of implementation. A further element of the problem of indebtedness is its nature, i.e. it consists mainly of short and medium term commercial or bank credits. The difficulties experienced recently of meeting the commitments by Poland and Romania seems to reduce the willingness in some financial circles to extend credits to countries of the group, and there is also the desire of many CMEA countries not to increase their indebtedness more than absolutely necessary.

The efforts by the CMEA countries to reduce their balance of payment deficit through dynamic export growth may meet serious constraints. A simultaneous reappraisal of the import substitution policy can therefore be expected. The problem will arise how to avoid under such circumstances the situation where short-term balance of payment considerations prevail over long-term structural objectives.

^{1/} See ID/WG.357/2, Chapter 2

The growing internationalization of the world's industrial production offers a major challenge to CMEA countries. In the specialization pattern followed hitherto, most attention was paid to the final product, whereas to a much lesser extent agreements were concluded on the supply of parts and components. Although within the CMEA standardization efforts are expanding, production and trade are more concentrated around the final products than on components. It is possible that subcontracting and other types of international co-operation will receive more attention in some CMEA countries in the future.

Not only political but economic reasons indicate that intra-regional specialization may offer the best yields. The insufficient results achieved until now originated in the fear that relinquishing to produce a broad range of goods might lead to depressing the development of the sub-branch of the industry as a whole. Since national industries, with the exception of the USSR, are unable to cope with the economic production of a wide variety of products, using up-to-date technologies, the need for a broadened specialization is even more pressing. In some areas, like nuclear technology or computer technics, a carefully organized division of labour can be detected.

3. THE CHANGING INDUSTRIAL STRUCTURE IN THE 1980's

Introduction

The new challenges confronting the current structure of industrial production and trade of CMEA countries that have just been discussed have undoubtedly played a significant role in conceiving the plan targets and direction of development for the 1980's. The individual country studies provide some insight into these directions. In the present chapter an attempt is made to single out some pertinent features of the likely changes of the industrial production and trade structures. Obviously, it would have been essential to include a presentation of plan data in order to obtain a quantification of the expected or planned changes. Since, however, the official plan figures for all the countries were not available at the time of the preparation of this paper, it was necessary to rely on various indicators as could be obtained from existing advance documents and studies. The use of these indicators should be seen as a first attempt to outline a scenario of the emerging industrial structure and as a basis for discussion. It is hoped that official plan data will be introduced at a later stage thus gradually replacing the estimates and enabling a more precise description of prospective developments in the CMEA countries.

Elements of the emerging development pattern

Deceleration in industrial growth

The CMEA region enters the 1980's with considerable deceleration in its economic and industrial growth. The Eastern European CMEA countries attained in 1976-1980 in their NMP's the lowest growth rate since the Second World War.

Reasons for the slow-down in growth in the European CMEA are to be found in labour shortages, difficulties in providing exports to pay for the imports in view of the inflation and reduced growth in non-CMEA countries, problems in personal and enterprise initiative and innovation, and scaled investment goals in several of the countries.

Future actual rates of growth of the East European economies will depend on how successfully these countries ameliorate the adverse factors affecting productivity, cope with adverse developments on foreign markets and manage to meet consumer expectations. With the exception of the USSR, all of the East European countries are relatively small, all seek rapid economic development, all possess limited natural resources (with few exceptions), all face difficult choices in seeking domestic sources to substitute for costly imports, and all, by their size and meager natural resource endowments, are heavily foreign trade dependent.

Reducing energy and raw material intensity

All information available indicate an endeavour by the CMEA countries to systematically reduce the raw material and energy intensity in industrial production and to the extent possible rely on indigenous rather than imported resources. The various country studies referred to in the introduction already confirm this trend. The estimates in the Hungarian study^{1/} which was prepared before the actual adoption of the current 5-year plan have since been surpassed. The plan target for the ratio between the incremental NMP and energy consumption was set to 0.7 per cent. Later announcements seem to indicate a further lowering of this figure.

This policy can be expected to have a significant bearing on the pattern of industrial production and on the domestic production of energy.

It is evident from the background papers that plans call for coal mining to be stepped up and nuclear power generation to gain importance in the electricity supply. Thus it is planned that by 1990 25 per cent of the electric energy requirements of the CMEA countries will be covered by nuclear power. Oil is to be utilized mainly for petrochemical and power driving purposes whereas simple heating consumption would be reduced. To achieve this aim investment and production in mining and energy industry have to be substantially increased.

^{1/} See UNIDO/IS.196

The wide ranging policy of savings in consumption involves several measures. Internal prices of fuel and raw material have been considerably increased since it is assumed that the previous low prices were contributing to waste in consumption. Equipment and vehicles of uneffective consumption are being discarded, all kind of waste heat utilization, isolation work etc. are encouraged and in case of necessity financially promoted. Calculations in the USSR show that the cost of different fuel-saving investments may at present be already 2-3 times lower than the cost of corresponding fuel production and transportation.^{1/} CSSR planners foresee saving about 12 million tonnes of standard fuel by 1985 and about 27 million tonnes by 1990 compared to the consumption in 1980.^{2/}

Also in industry's consumption of raw materials, increasing attention is expected to be given to various means of saving inputs. Calculations show that in the CSSR technical measures in industrial production could reduce the consumption of steel by 2 million tonnes and of non-ferrous metal products of 44-50,000 tonnes. Such savings would obviously have an essential impact on the planned development of production capacity in the metallurgical industry. In the USSR savings in the range of 10 million tonnes are envisaged for steel products for the year 1985.

A reduction in the fuel and raw material intensity could also be achieved through a lowering of the structural share of those industries which are high consumers of these resources. On the basis of available information it seems that CMEA countries are not likely to directly reduce the capacity of such industries. Instead, they seem to plan to increase the degree of processing in these branches in order to attain a higher value added. This obviously implies a reduction of the raw material input in relation to the national income and also a gradual reduction of the share of the basic industries within the total industrial output. The implementation of this policy would, however, seem to be hampered by the low growth rate planned for the industry sector as a whole. It could be assumed that therefore a temporary underutilization of existing capacities in basic industries would occur.

^{1/} See ID/WG.357/3, Chapter 4.1

^{2/} See ID/WG.357/1, Chapters 4.2.1 and 4.2.2

The development towards a decrease in the raw material and energy intensity of the industry obviously is confronted with several obstacles. However, whereas in previous plans the energy and raw material conservation tended to be treated as a secondary or conflicting target, current balance of payment positions are imposing strict limits to imports. The need for a change thus is more pressing than before. Moreover, a set of consistent measures is designed to achieve the aim in the new plan period and thus to overcome the obstacles.

Increased value added

Plans to increase the share of value added in total output are an important feature of the development plans in the CMEA countries and this is envisaged in almost all branches. The output of the chemical industries is to grow above the industrial average all over the region, accompanied by a considerable shift in its structure.

In the USSR the capacities for producing high volume petrochemical products will be extended while other CMEA countries are concentrating rather on specific types of chemicals, pharmaceuticals, fine chemicals as well as on expanding the capacities for further processing. Such division of labour has an advantage for all partners. In the total manufacturing export of the USSR chemicals might have an increased share on account of crude oil and also the scale of production will be more adjusted to the specific resource endowments of the individual countries.

In the engineering and electrical industry major efforts are being taken to introduce greater automation and more extensive use of the electronics and computer technics. All countries have a target for these sub-branches greatly exceeding that of the industrial average. In the absence of detailed data one can assume that the rate of growth envisaged in the present five-year plan of the CSSR - it is more than double of the industrial average - is characteristic of the region as a whole.

Increase in quality

The quality aspect of industrial products is receiving growing attention. Increasing durability is also seen as having both an important role in saving raw materials and in attaining higher value of the product.

Attempts to produce higher quality final products will also generate forces for increasing the impetus to use new technologies in the production of intermediate products.

Application of new technologies

Generally, advances in automation are in all countries seen as an essential means for substantially increasing the technical level of industrial production. New technologies are considered necessary also for achieving flexibility in industrial production and for reducing the prevailing rigidities in terms of product lines.

Specifically, automation is in many CMEA countries seen as a means to offset the growing manpower shortage and in particular to reduce requirements for unskilled and/or hard physical labour. It is significant that the GDR - which is probably the country with the scarcest labour supply in the CMEA - is placing the greatest emphasis on introducing industrial robots and various techniques based on micro-processors. In the USSR new technologies are to be introduced also to facilitate the exploitation of new raw material resources in areas with extreme climatic conditions. Hungary is reported to be planning to specialize on the development and production of robots to be used for serving in nuclear power plants.

The question arises as to the acquisition or generation of the new technologies. Since some of the new technologies are presently foremost available in the most advanced market economies, it may prove to create difficulties in acquiring access to have specialized processes and equipment. It is, therefore, possible that delays in their application could occur and that CMEA countries would have to initiate faster development of their own innovation processes in wider areas than is presently being foreseen.

Development of the consumer goods industry

Consumer demand is given increased attention in the new plans of the CMEA countries. In the plan of the USSR growth of the consumer goods sector (sector "B") is for the first time to be allocated higher priority than the capital goods sector (sector "A"). It is in this connexion also to be noted that two branches within sector "A", namely the engineering and chemical industries, are giving increasing importance to the production of consumer goods.

From the debate in Hungary on the 1982 budget it is quite evident that high importance is given to ensuring the supply of a wide range of consumer goods for meeting the increasing domestic demand. A similar trend is noticeable in the CSSR where changes of the production structure of the electric and engineering industry as well as the food and light industry aim at better meeting the needs of the consumers. In respect to the textile, clothing and leather industry, a shift is anticipated towards higher quality and technical standards of the products.^{1/}

Increased industrial specialization

In view of the general pattern of development emerging in the industry sectors of CMEA countries, it can be expected that the intra-regional specialization process will be pursued with greater emphasis. The actual pace of this process will to a certain extent depend on the individual countries' attainment of their macro-economic targets and on economic conditions in terms of prices, accounting systems etc. which would facilitate the widening of the approach of co-operation from a product-by-product to a wider pattern.

^{1/} See ID/WG.357/1, Chapter 4

Although it is not possible on the basis of available documentation to provide a detailed picture of the future intra-CMEA specialization, certain lines of development seem to emerge:

- the national factor and resource endowment will influence the specialization process more than before ;
- specialization will grow significantly in the production of parts and components ;
- the domestic demand of the USSR for various categories of industrial goods will continue to play a dominant role for the establishment of specialization agreements ; and
- increased attention will be given to a division of labour in the field of innovation and R + D with a view to pooling resources and to enable a certain focus in national efforts.

In some areas of innovation there is already a clear indication of a desired division of labour among CMEA countries, particularly in nuclear technology and computer techniques.

The above mentioned expansion of the consumer goods industry is likely to create a basis for increasing specialization also in this sector within the CMEA. So far specialization had not developed beyond a rather limited level. By and large consumer goods are produced for the respective home markets only and for exports to the USSR. Imports of consumer goods therefore have a share of only about 6-8 per cent.

The figure for the USSR is about 12 per cent. There are indications^{1/} that the production of the leather and clothing industry in the USSR will be increased. In the course of this development it may seem possible that other CMEA countries restructure their existing production with a view to specializing on higher value products, fashion goods and special purpose products.

^{1/} See ID/WG.357/3

Regional shifts

A special feature of the emerging changes in the USSR is the geographical shift of industrial activities.^{1/} Despite the previous dispersion of industries, the main share of manufacturing is still in the European area. However, both manpower and raw material reserves are exhausted in that part of the country. While between 1970-79 the population of the European republics of the Union increased only by about 6-9 per cent those in Asia grew mostly over 20 per cent. It is therefore seen as an important task to improve the location of productive forces, and to ameliorate the territorial division of labour. This is to contribute to the development of small and medium-size towns. Besides establishing large specialized industries there are possibilities to set up subsidiaries of already existing plants.

The geographical concept of the industrial development involves the expansion of light and mechanical engineering industries in Central Asia, and intensification of the existing capacities in European and Ural areas. In Siberia an acceleration of the development in fuel, electric power engineering, ferrous metallurgy, chemicals, petrochemicals, timber, pulp and paper, wood working and microbiological industries as well as that of the construction industry is planned.

This locational policy aims at establishing complex economic entities in a region.

Changes in industrial organization

Unexpected changes in the world economy seem to increase the need for flexibility in production and trade. It is more and more difficult to foresee all forces and their implications on the long-term strategies of the industrial development plans and international co-operation among interdependent countries. Measures recently taken in several CMEA countries indicate that management methods of industry become subject to changes both at national and lower levels. Without diminishing

^{1/} See ID/WG.357/3, Chapter 2.3

the basic role and advantages of central planning more flexibility is aimed for at the enterprise level. Already now the responsibilities of the industrial managers have been increased and the separation of industry and foreign trade has been reduced or completely abolished, as a means of increasing enterprise flexibility.

The structure of the industrial organization is also likely to be subject to change. In Hungary, for example, it is considered that the very large enterprises are not flexible enough to respond rapidly to the challenges of the changing demands. Large enterprises tend to develop a certain autarchy, cater mainly to their own needs instead of relying on outside suppliers better specialized in producing components. As a result, unwarranted inefficient capacities may be created. In the USSR inter-branch territorial integration is envisaged instead of huge horizontal enterprises being expanded.

It could therefore be expected that in the long run structural changes will be facilitated both between and within industrial enterprises through new ways of industrial organization and management.

Expected changes in production

Long-term goal programmes

The 30th CMEA Session (1976) decided on the drafting of "Joint Special Programmes of Co-operation in the Major Branches of Material Production for a Period of 10-15 Years".

Already at the 31st CMEA Session (1977) the Programme for Energy, Fuels and Raw Materials was given priority over the other programmes. The 32nd CMEA Session (1978) passed the first of the "Long-term Target Programmes of Co-operation until 1990 (LTPC)" - those in the fields of energy, raw materials and fuels, of agriculture and food industries, and of mechanical engineering - while the 33rd Session (1979) adopted the remaining two LTPC's, concerning industrial consumer goods and the development of transport systems. The LTPC for mechanical engineering, in terms of the measures envisaged, is the most extensive; it is followed by the LTPC for energy, fuels and raw materials, and, at a certain distance, by the other LTPC's.

The five sectors of the economy dealt with in the LTPC's are the most important fields, posing the most pressing problems, of the CMEA economies. By concentrating CMEA co-operation in these fields it is hoped that impediments to economic growth may be successfully overcome. Within this sectoral integration scheme for five selected economic sectors, only some particular branches, sub-branches and products are covered by the programmes.

Preliminary estimates indicate that the realization of all LTPC measures in the sphere of production alone during the period 1981-1990 would require an investment volume of between TR (transferable roubles) 70 billion and TR 90 billion (this is equivalent to US\$ 100 to 130 billion).

In the longer run the successful realization of the target programmes could lead to structural changes in the CMEA economies; changes which in turn might increase the range of competitive goods.

Medium-term targets

As was indicated in the section above a period of lower growth rates in industry has been already commenced and will according to available plan data and forecasts continue throughout the greatest part of the 1980's.

In Table 13 (see below) the targeted growth rates of the NMP for the period 1981-1985 are shown for the CMEA countries. These rates are well below the planned rates for the previous plan period 1976-1980 and are also lower than recent, actual growth rates in these countries. The table also shows that it is the industrial sector which reflects this lowering of the overall growth.

The European CMEA countries on average plan for 1981-85 a growth rate of 4.5-4.6 per cent which is rather close to actual growth in 1976-80 (4.8 per cent) but much lower than in 1971-75 (7.7 per cent). Both the USSR and the GDR plan to reach a slightly higher rate of growth in 1981-85 than actually achieved in 1976-80. Poland has published no

1981-85 plans, but has targeted a rather low rate for 1981-82 and this obviously reflects present economic difficulties. The highest growth rate is planned by Romania (7.6 per cent) which also had a high actual growth in 1976-80 (9.5 per cent).

Little information is presently available on the future developments within the manufacturing sector. However, an attempt is made here to highlight some major trends in the USSR, CSSR and Poland on the basis of the respective country papers.

Industrial development in the Soviet Union over the 1980's will see changes in proportions between individual industries and within industries themselves. While gross industrial production in the Soviet Union is planned to grow by 4.5 - 4.6 per cent per year, the output of many raw materials, intermediate products, fuels and energy is planned to grow (often appreciably) below the level planned for industry as a whole. Thus, oil production is planned to grow by 0.5 - 1.4 per cent per year, coal production by 1.5 - 2.2 per cent, cement production by 2.4 - 2.7 per cent, rolled steel by 2.6 - 3.1 per cent and electric power by 3.7 - 4.3 per cent.^{1/}

On the one hand these low levels of output correspond to the strong emphasis placed by statements of President Brezhnev and Prime Minister Tikhonov at the XXVI Party Congress on the necessity of a more efficient use of energy, metals and natural resources, as well as on the recent difficulties in production (e.g. oil) or below-plan performance (e.g. coal) of several of these sectors. On the other it is a reflection of a planned rate of growth of labour productivity in industry of 4.2 - 4.6 per cent per year - roughly a third faster than in the previous five year plan.

Among the industrial sectors where the growth is planned to be above average, the branches related to the chemical industry stand out, with a planned growth rate of 6.4 per cent for chemical fibres and thread, of 7.6 - 8.3 for mineral fertilizer, and of 10.5 - 11.4 for synthetic resins and plastics. It is important to note that these

^{1/} See ID/WG.357/3, Table 2.3

Table 13. Major plan targets and performance for 1976-1980 and targets for 1981-1985
(average annual growth in per cent)

Country	National income			Industry			Agriculture			Investment		
	1976-1980		1981-	1976-1980		1981-	1976-1980		1981-	1976-1980		1981-
	targets	actual	1985	targets	actual	1985	targets	actual	1985	targets	actual	1985
Bulgaria	7.7	6.2	4.6-5.4	9.2-9.8	6.19	5.4-6.2	3.7	-	3.7-4.1	4.7	4.6	3.7
Czechoslovakia	4.9	3.7	3.0-3.2	5.7-6.0	4.56	4.0	2.6-2.8	1.9	2.0	5.4	4.1	2.0
German Democratic Republic	5.0	4.1	5.1-5.4	6.0-6.3	4.90	5.6-5.9	-	-	-	4.2	5.7	-
Hungary	5.4-5.7	3.4	2.6-3.1	5.9-6.2	3.37	3.5-4.0	3.0-3.4	-	2.0-2.3	2.1	4.4	2.0
Poland	7.0-7.3	1.8	-	8.2-8.5	4.40	-	2.8-3.0	-	-	6.5-7.0	-	-
Romania	10.0-11.0	7.1	6.7-7.4	10.2-11.2	9.58	8.0-9.0	5.0-7.6	4.8	4.5-5.0	12.8	10.8	5.4-6.2
USSR	4.7	4.3	3.4-3.7	6.2-6.8	4.50	4.7-5.1	2.6-3.2	-	2.3-2.7	3.3	3.9	2.3-2.8

SOURCE: UNCTAD TD/B/859

high growth rates, and other high growth rates in, for example, the metallurgical and engineering industries, will be attained under the 1981-85 plan with a rate of growth of gross investment of some two and a half per cent (versus an average of 3.4 per cent over 1976-1980) and a planned acceleration in consumer goods production. It is also clear from the plan and from the speeches at the XXVI Party Congress which introduced the plan document that one important element in the attempts at attaining this restructuring will be imports from the non-CMEA countries. Compared with other East European countries, the Soviet Union is in a relatively stronger position to carry out such trade both because of its relatively low debt and its significant hard currency income from certain exports such as oil or gold. It is also clear that a prime interest of the Soviet Union is to import high technology goods from the developed market economies, whereas imports from the developing countries may not be expected to receive the same emphasis.

Because of the serious economic situation in Poland, the Polish authorities are focusing on short-term stabilization measures (rather than on a five-year plan) designed to stop the decline in industrial production that began in 1980 by no later than 1984-1985.^{1/}

From the studies available it is evident that the ability to carry out successfully the structural changes that are required for this stabilization programme will crucially depend on moving towards an equilibrium of imports with exports, while maintaining the import of crucial raw materials, spare parts and equipment; the rescheduling of foreign debt; an increase in labour productivity; a rise in agricultural production; and a restructuring of investment. It will also require that the economy should reduce the high import content of industrial production and that coal production be at least increased to previous trend levels, both for domestic use and as a major hard currency earner.

For the industrial structure, the stabilization programmes under discussion ^{2/} will mean abandoning - or at least radically redesigning - a number of high import content investment projects, the expansion of the food processing industry, the intensive development of electric energy production, and a scaling-down of the production of capital goods.

^{1/} See ID/WG.357/2

^{2/} See *ibid.*

At the intra-industry level there will be a restructuring of production within the electrical and engineering industry to orient production more to the pattern of demand and a move to increase the share of highly process i products in total production, combined with a heavy stress on those subsectors most economic in the use of energy and materials.

In Czechoslovakia, the average annual rate of growth of industrialization will proceed more slowly over 1981-85 than over 1976-80. It will be constrained by the inability to increase significantly the import of raw materials, fuels and energy from the Soviet Union, Czechoslovakia's main supplier.^{1/} Attempts at structural change over the 1981-85 period will also be constrained by the planned stagnation in the volume of investment, as well as by the expectation of further terms of trade losses.

The industrialization that is planned for the 1981-85 period will proceed most rapidly in sectors such as engineering and the electro-technical industry - with the greatest preference being given to electronics, with a growth rate of 14.7 per cent per year, and particularly of micro-electronics.^{2/} Industries such as the light industry, the chemical industry and the food industry, on the other hand, with growth at much more modest rates (2.8 per cent, 2.3 per cent, and 1.9-2.1 per cent, respectively) experience decreases in their share of industrial output. For still other sectors, such as the metallurgical industry, there will be zero growth rate, and hence an even sharper decline in their share in industrial production.

Even this industrial development is going to be dependent on strong conservation measures in the areas of raw materials, fuels and energy, particularly since growth rates for fuel and energy resources are low relative to the planned growth in industrial production.

^{1/} See ID/WG.357/1, Table 20

^{2/} See *ibid.*, Chapter 4.2

Perspectives for the development of trade

The general pattern of development of CMEA countries' exports over the 1970's was characterized in detail in Chapter 2.4. The experience of the period 1976-1980 was that, in general, exports grew more slowly than planned and imports more rapidly than planned in the CMEA countries and this relationship cannot be excluded over the present five-year period. Examining the limited data available for the foreign trade plans for 1981-85 it is clear that, with the exception of only the GDR, the planned average annual growth rates in total foreign trade are markedly lower than the rates attained over the last half of the 1970's or in 1980 (see Table 14).

The share of intra-CMEA trade in total trade flows is very high. This share has, however, been falling, and can be expected to continue to show a decreasing trend over the 1980's.

The foreign trade of the CMEA countries leads to the concentration on raw materials and fuels in trade with developing countries - a feature which as planners in the CMEA countries have indicated will be retained over the present medium-term plans.

An important feature of the foreign trade of CMEA countries as related to developing countries is that trade is very highly concentrated among developing countries. The evidence from the country studies is that there is no reason to expect this pattern to change over the early 1980's.

Prospects for trade with developing countries

A constant feature of East-South trade is that manufactured goods dominate the imports of the developing countries from the CMEA (as they do the imports of the developing countries from the developed market economies), with machinery and transportation equipment being appreciably less important in the imports from the CMEA than from the West.

In the exports of the developing countries to the CMEA, raw materials and agricultural products dominate, with the share of manufactures being small and actually decreasing (from 9.5 per cent of total CMEA imports in 1965 to 8.4 per cent in 1979). Looked at from another perspective, 61.3 per cent

Table 11. Foreign trade plans and performance in the socialist countries of Eastern Europe
(percentage increase over preceding year)

	1976	1977	1978	1979	1980		Planned annual average 1981-1985
	Actual				Plan	Actual	
<u>Bulgaria</u>							
Exports	14.5	15.8	10.4	15.4	} 7.5 ^{a/}	16.3	} 7.0 ^{a/}
Imports	3.8	11.5	12.2	7.4		11.7	
<u>Czechoslovakia</u>							
Exports	11.8	13.4	14.6	10.3	} 6.6 ^{a/}	19.5	} 4.6 ^{b/}
Imports	10.4	11.8	7.7	11.3		7.6	
<u>German Democratic Republic</u>							
Exports	} 14.0	} 7.0	9.9	13.0	} 12.0 ^{a/}	} 10.3	} 11.2 ^{c/}
Imports			1.8	12.0			
<u>Hungary</u>							
Exports	8.0	16.5	0.9	17.0	} 5.5 ^{a/}	9.3	} 6.6
Imports	4.0	16.2	12.6	3.0		6.5	
<u>Poland</u>							
Exports	7.1	11.4	9.8	12.2	} 9.1 ^{a/}	7.6	} ..
Imports	10.4	5.5	4.7	6.3		10.9	
<u>Romania</u>							
Exports	14.9	14.6	5.7	18.0	} 14.8 ^{a/}	25.8	} 8.5-9.5 ^{a/}
Imports	14.1	15.1	14.6	20.1		20.9	
<u>USSR</u>							
Exports	16.6	19.7	7.2	18.9	} 4.7 ^{a/}	18.4	} 7.0 ^{a/}
Imports	7.3	4.7	14.8	9.6		18.8	

a/ Total trade turnover

b/ Trade with CMEA member countries

c/ Exports only

SOURCE: TD/B/859 (from National statistics of the socialist countries of Eastern Europe)

of total CMEA imports in 1979 were manufactured imports, whereas only 8.4 per cent of CMEA imports from the developing countries were manufactures required from DC's. Although structural changes in the industry of the CMEA countries, on the long run, may help in establishing a broader division of labour and, subsequently, an increasing trade between the two groups, the data suggest that the most difficult challenge to East-South trade relations in the 1980's will be the attempt of the developing countries to increase the share of these higher processed exports to the CMEA countries as a reflection of the DC's industrial development.

The problem is all the more important from the point of view of efforts at international industrial restructuring because many of the potential exports of the developing countries to the CMEA (such as clothing, leather goods, carpets, metal goods, wood products, simple electronics, some steels) are also products where the CMEA countries are direct competitors with the developing countries on markets of OECD countries. That is to be reduced by the envisaged structural changes.

With the exception of Poland, the East European CMEA countries are generally natural resource poor and, with the exception of Romania, these countries have traditionally seen the Soviet Union as their most important supplier of raw materials, and particularly of oil. From the end of the 1970's it became clear that the supplies of oil from the Soviet Union would not be sufficient to meet completely the growing demand of the East European countries for oil although raw material and fuel intensity is going to be reduced. This new realization will be a crucial factor in shaping the relationship of these countries with (particularly the oil-exporting) developing countries over the 1980's, and countries of Eastern Europe are concluding an increasing number of delivery contracts with the countries of OPEC for oil deliveries (that is, at present, also pressed by OPEC countries themselves).

It can be suggested that the export pattern of the USSR is expected to stabilize over the first half of the 1980's, with a decline in the share of fuel in Soviet exports over the last half of the 1980's and into the 1990's, the decrease of oil and oil products in Soviet exports being planned to be offset by increased deliveries of gas and electric power. On the import side, it is planned that the trade pattern should remain steady, with the only notable fluctuations being in machinery and transport equipment.

An important factor that could bode well for the exports of the developing countries to the CMEA market is the demand generated within the CMEA countries by the new measures in the 1981-85 plans to secure better supply of consumer goods. In the absence of a traditional production within the CMEA countries of a correspondingly wide range of consumer goods, there will be a market opening for the developing countries.

The medium-term plans for the individual countries for the period 1981-1985 would envisage a pattern of trade in which the developed market economies would provide technologically sophisticated machinery and equipment plus long-term credit for the development of Soviet raw materials, oil and gas. Within the European CMEA area there would also be elements of a similar pattern of trade between the small East European countries and the Soviet Union. The European CMEA countries would, in turn, provide its technology and allied machinery and equipment to the developing countries. The developing countries would then concentrate on the production of natural resources to fuel the development process in the CMEA countries as well as in the developed market economies. The developing countries would, in return, benefit from assistance from these countries in the further development of their extraction industry and of their local processing industry.

In general, this scenario is consistent with the pattern of static comparative advantage of both groups of countries. But clearly the possibility of the further development of such a pattern of trade on the part of the CMEA countries runs in conflict with many elements of a development programme for the developing countries based on their equally strong expressed desire for accelerated industrialization.



