

# CEPAL

## Review

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#### Notes and explanation of symbols

The following symbols are used in tables in the *Review*:

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

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

A blank space in a table means that the item in question is not applicable.

A minus sign (-) indicates a deficit or decrease, unless otherwise specified.

A point (.) is used to indicate decimals.

A slash (/) indicates a crop year or fiscal year, e.g., 1970/1971.

Use of a hyphen (-) between years, e.g., 1971-1973, indicates reference to the complete number of calendar years involved, including the beginning and end years.

Reference to "tons" mean metric tons, and to "dollars", United States dollars, unless otherwise stated.

Unless otherwise stated, references to annual rates of growth or variation signify compound annual rates.

Individual figures and percentages in tables do not necessarily add up to corresponding totals, because of rounding.

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## Review

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## Exports and industrialization in Argentina, 1973-1986

*Daniel Azpiazú and Bernardo Kosacoff\**

The objective of this article is to analyse the economic behaviour of manufactured exports as one of the modalities assumed by the process of industrialization of Argentina during the period from 1973 to 1986. To that end, we analyse the export opening of industry; the presence of manufacturing in export flows; the modifications in sectoral composition; the changes in the real trajectory of foreign sales; and essentially the association between industrial development and manufactured exports.

The study of the trajectory and composition of the export of manufactured goods during the period makes it possible to infer a series of useful elements of judgement. Taken together, they help to provide a better characterization of the profile of external sales, their principal rules of behaviour, the consequent modifications in their composition and, in summary, of those aspects which have to be interpreted as a prior and indispensable step for the design and formulation of policies which will effect their future dynamics.

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This work is a summary of some of the main results of a programme of research on "Industrial Exports" which is being carried out in the Industrial Development Area of the ECLAC Buenos Aires Office.

## Introduction

The Argentine economy has been characterized by its cyclic behaviour. The growing need for imports, characteristic of the expansive phase of production, clashed with the low availability of foreign currency, which placed a limit on the continued growth of the economy. The phenomenon was manifested in the frequent balance-of-payments crises and in the consequent need to adjust the type of exchange in order to re-establish external accounts.

This cyclic behaviour and the recessive and distributive effects which—in spite of the postulates of economic theory—accompanied devaluations, motivated the publication in the 1960s and 1970s of a series of studies on the Argentine economy.<sup>1</sup> These studies conceptualized the macroeconomic functioning of the country in terms of the difference in behaviour between the evolution of the "two sectors": the agricultural and stock-raising sector of the pampas and the sector of industrial activities.

With regard to their relationships with foreign countries, the asymmetries of the two sectors were a central aspect of these models. The agricultural and stock-raising sector was characterized by the presence of comparative advantages on an international scale, which enabled it to export and at the same time to require almost no import inputs, their prices being tied to the type of exchange. On the other hand, industrial activities developed in an atmosphere of protection and subsidies, with very little international competitiveness and with a strong dependence on inputs, capital goods and technologies obtained from abroad and had practically no involvement in the export flow.<sup>2</sup>

The scarcity of foreign currency for financing the sustained development of the country and the particular deficit position of the industrial sector in the balance of payments were two of the elements that determined the search for alternative styles of development to overcome

<sup>1</sup>Noteworthy among these are Braun and Joy (1968), Díaz-Alejandro (1965) and Canitrot (1975).

<sup>2</sup>This simplified and static view of the industrial sector has been raised again in Katz and Kosacoff (1988).

these restrictions. In addition to other variables—such as an increase in the stagnating primary-production sector—the search for greater competitiveness in the industrial sector occupied a central place. The successes achieved during the occupation of the markets in the substitutive model showed, on the one hand, signs of exhaustion and, on the other hand, their inability to overcome the scarcity of foreign currency. In this sense, between 1978 and 1981, export promotion and monetaristic policies entered the Argentine scene.

The policies of export promotion began in the 1960s, the starting point of a combination of financial profits, tax exemptions and incentives which was designed to increase the foreign sales of the so-called "non-traditional" export industries, producers of manufactured goods whose basis of support does not lie in the industrialization of agricultural and livestock inputs. Designed for the purpose of reducing the negative foreign-currency balance, overcoming the restrictions imposed by the reduced size of the domestic market and generating an atmosphere of greater competitiveness, the policies of export promotion were based on taking advantage of the maturing trajectory of a great variety of enterprises and activities that were successful in substitutive industrialization and in the granting of strong incentives that would enable companies to operate abroad. The results were very promising. While at the beginning of the 1960s these "non-traditional" industries had practically no effect on exports, a decade later their foreign sales were in excess of US\$1 billion, that is to say, one quarter of all exports. In addition, exports of technology, consulting services, engineering works and even direct investments made by industrial firms, chiefly in the Latin American area, began to become common.<sup>3</sup>

In late 1978 a set of economic policy instruments based on the monetary approach to the balance of payments came to be applied. With a basic objective of anti-inflationary policy, Argentina articulated the opening of the markets—the real market and the capital

market—of the economy with the reforms of the financial system and the pre-announced fixing of the type of exchange, which ended unsuccessfully in 1981.<sup>4</sup> This failure interrupted the prior evolutionary trajectory of the industrial sector, generating the problem of foreign indebtedness and foreign exchange in opposite directions in the industrial structure.

Subsequently, conditions apparently similar to those of the earlier semi-closed model of the Argentine economy were created again. However, the profound changes on the international scene—the effects of the "third technological revolution", the increase in protectionism, agricultural subsidies, etc.—were combined with those encountered on the local scene (foreign debt, the loss of sources of financing for the government, etc.), so that the problems of industrial exports came to be organized on an even more hierarchical basis.

The purpose of this study is to quantify industrial exports during the period from 1973 to 1986 and to analyse their economic behaviour. The export phenomenon is nothing more than a manifestation of the potentialities and limitations of the industrial structure. Accordingly, the behaviour of exports will be evaluated in the context that has been assumed by the recent process of industrialization in Argentina. The period being analysed starts from the first successes achieved by the policies of export promotion, based on the advantages gained in the substitution process, and covers the changes arising in the industrial structure during the period of the monetarist policy. A study of the profound changes in export flows will make it possible to evaluate the new conditions of development of Argentina's industrialization and to analyse more satisfactorily the forms this process may take in the future.

Within the framework of this programme, a questionnaire was sent to 341 companies, representing almost 80% of industrial exports

<sup>3</sup>In this connection, see, among others, Katz and Ablin (1977) and ECLAC/EUDEBA (1985).

<sup>4</sup>For an analysis of the period, see, among others, Sourrouille, Kosacoff and Lucangeli (1985), Kosacoff (1984), Khavisse and Azpiázú (1983) and Schvarzer (1976).

for 1984; we have reprocessed the data on exports according to the criteria of the International Standard Industrial Classification (ISIC) for the series 1973-1986, and we have drawn up a series of basic documents related to central

aspects of these problems (evaluation and analysis of the cost of promotional régimes, the importance of technological aspects, analysis of the destination of exports, performance of the oil industry, etc.<sup>5</sup>

## I

### Importance of the foreign market as the destination of national production

In 1986 the coefficient of exports in the Argentine economy, that is to say, the quotient obtained by dividing the value of exports by the gross value of production, amounted to 5%, a level slightly higher than the average for the period 1973-1986 (4.89%). This series shows the lowest coefficients in the years 1975 and 1980 (3%) and the maximum value in 1983,<sup>6</sup> when it reached 6.56%.

When this coefficient is broken down according to sectors of economic activity, we find, in the first place, that except for the agricultural and stock-raising sector and the industrial sector,<sup>7</sup> the other economic activities are oriented exclusively towards the domestic market. Some exports are found only in the

exploitation of mines and quarries, but in any case, the average value of these over the period 1973-1986 does not amount to 1% of mine and quarry output.

When the analysis is centred on the agricultural and stock-raising sector and the industrial sector, we find, from the standpoint of the importance of the domestic market as the destination for production, that there is a structural component which determines the model of development and the functioning of the Argentine economy.

While the agricultural and stock-raising sector exported slightly more than 20% of its output during the period 1973-1986, the industrial sector marketed only 8% of sectoral output to foreign countries. These very different percentages reflect another difference which is no less significant. In the first case, thanks to the impetus given by the agricultural subsector, we find a particular export dynamism of the agricultural and stock-raising sector, and hence an increasing gravitation towards foreign markets. In contrast, the industrialized sector is characterized by a failure to make any major changes in its export vocation during the period under study. Without attempting to go more deeply into the subject of the export vocation of the agricultural sector, we should point out that the decisive factor for this dynamism is that supply, after more than 40 years of stagnation, was finally increased; since domestic demand was already being fully satisfied and did not increase, this made possible a substantial increase in the amounts exported. The rise of new crops—in particular, oilseed crops, many of them rotatable—the technological improvements in mechanization and hybrids

<sup>5</sup>The most important publications include: ECLAC, Buenos Aires Office, *Desarrollo industrial y exportaciones de manufacturas* ("Industrial Development and Exports of Manufactured Goods"), Working Paper No. 22, 1986; INDEC/ECLAC, *Exportaciones industriales. Perfil y comportamiento de las empresas exportadoras de manufacturas* ("Industrial exports. Profile and behaviour of companies exporting manufactured goods"), Study No. 6, Buenos Aires, 1987; ECLAC, Buenos Aires Office, *Industrialización y exportación de manufacturas en la Argentina. Evolución estructural y apertura exportadora (1973-1986)* ("Industrialization and export of manufactured goods in Argentina. Structural evolution and export opening (1973-1986)"), to be published in *Boletín Techint*.

<sup>6</sup>This excludes the statistical value obtained for the year 1985 (12.3%), since it is not considered representative, owing to the distortions resulting from the combination of a multiplicity of factors that seriously affected the estimates for the gross value of production at current prices.

<sup>7</sup>We are using the International Standard Industrial Classification of All Economic Activities (ISIC, Rev.2). The foreign-trade data compiled by INDEC were, for their part, reprocessed and regrouped on the basis of a compatibilization of the classification on which the information relating to exports is structured (NADE) with the classification corresponding to production data (ISIC). See Cavanna *et al.* (1986).

and the slow but significant advances in the use of agricultural chemicals, as well as the expansion of the agricultural frontier as a result of the shift of the stock-raising areas to less productive land, are some of the elements responsible for the increase in production, and therefore for the export of grains.<sup>8</sup> This situation clearly shows the decisive importance of the changes in production structure as determining factors of Argentina's new position in the international markets (table 1).

### 1. *Export opening of the manufacturing industry*

The export coefficient of the industrial sector was 9.4% in 1986, slightly higher than the average value for the period 1973-1986.

This overall indicator conceals large differences between different parts of the sector. In

actuality, the importance of the foreign market as the destination for the output of the industries whose basic inputs come from the agricultural and stock-raising sector (manufactures of agricultural and stock-raising origin, MAO) differs substantially from the corresponding value for manufactures of industrial origin (MIO), to such a point that the export coefficient of the former (18.7%) is 3.8 times that of the latter (4.9%).

Within these two major groupings, in turn, we find marked differences between the various industrial groups included in them (four digits of the ISIC).<sup>9</sup> With respect to MAO activities, consisting of 23 groups of manufactures, there are only seven groups whose export coefficients are higher than 10% (table 2), while in seven other cases the value is less than 1%.

With regard to the MIO groups—a total of 52—we find that nine of them have a coefficient higher than 10%, while 15 industrial branches export less than 1% of their output.

<sup>8</sup>In this connection the reader may consult, among others, Obschatko and Piñeiro (1986).

<sup>9</sup>The configuration of the subsets is defined in ECLAC (1986a).

Table 1

### EXPORT COEFFICIENTS<sup>a</sup> ACCORDING TO SECTORS OF ECONOMIC ACTIVITY, 1973-1986

(Percentages)

	Agriculture, hunting, forestry and fishing	Exploitation of mines and quarries	Manufacturing industries	Electricity, gas and water	Construction and services	Total
1973	13.41	0.72	8.46	-	-	4.95
1974	16.12	1.15	6.85	-	-	4.37
1975	16.57	0.50	4.55	-	-	3.05
1976	23.64	0.64	8.01	-	-	5.38
1977	26.94	0.65	9.36	-	-	6.03
1978	25.23	0.77	8.91	-	-	5.39
1979	18.79	0.40	6.92	-	-	4.10
1980	15.71	0.57	5.72	-	-	3.06
1981	24.80	0.50	7.38	-	-	4.22
1982	21.03	0.38	9.89	0.15	-	5.61
1983	31.27	0.39	9.39	-	-	6.56
1984	23.83	0.28	9.37	0.01	-	5.64
1985 <sup>b</sup>	43.84	2.43	13.11	0.37	-	12.33
1986	22.20	0.76	9.42	-	-	5.27
Average, excluding 1985	21.50	0.59	8.02	0.01	-	4.89

<sup>a</sup>Value of exports in Argentine currency divided by the gross value of production.

<sup>b</sup>See note 6.

Table 2

## EXPORT COEFFICIENTS IN RELATION TO THE GROSS VALUE OF EXPORTS, 1986

(Number of industrial groups by ranks of coefficients)

Industrial groups	Export coefficient (per cent)				Total
	-1	1 to 5	5 to 10	+ 10	
MAO	7	5	4	7	23
MIO	15	21	7	9	52
Total	22	26	11	16	75

Source: Data prepared by the Industrial Development Area of the ECLAC Buenos Aires Office.

These results clearly show the export orientation of the local industrial spectrum. The Argentine manufacturing sector has developed only 16 industrial groups in which the foreign market absorbs more than 10% of the output, while almost two thirds of industrial activities are oriented almost exclusively towards the domestic market, since they export less than 5% of their output.

An additional and much more illustrative perspective is found when we integrate into our analysis the production and the export quantities generated in each of the different industrial groups. If we arrange the set of industrial branches in accordance with their respective export coefficients, we find their relative impact on the total output of the sector and on industrial exports (table 3).

These conclusions unquestionably turn out to be much more significant than those observed in connection with the mere number of industrial groups. Two thirds of Argentina's industrial production is generated in groups which send less than 5% of their output to foreign markets. In contrast, those industrial groups which market more than 10% of their output in the foreign market account for less than one fifth of the locally produced supply.

From the standpoint of the concentration of exports according to the rank of the export coefficient of each industrial group, we find a distribution very different from the one reflected in terms of the relative contribution to the sector's production. The industrial groups with the highest export coefficients account for a significant share of total industrial exports, even though

their share in production is relatively low. On the other hand, those industrial groups whose export coefficients are less than 10%, in which 80% of industrial output is concentrated, contribute only one fourth of the exports of manufactured goods. This means that 73.4% of industrial exports originates in groups with coefficients higher than 10%, and more than half of this percentage (47%) is generated by activities with a marked orientation towards the foreign market (those in which the export coefficient is higher than 50% of the gross value of production).

## 2. Structural heterogeneity

The above comments enable us to formulate some important general conclusions. On the one hand, we must consider the heterogeneity of the various groups of industries with regard to their orientation towards the foreign market. While exports account for a larger share of total production in the activities of the MAO groups than in those of the MIO groups, we also find that both groupings include a large number of industrial groups oriented almost exclusively towards the domestic market. On the other hand, we find an asymmetric relationship linked to the existence of a small number of industrial groups which account for a smaller share of industrial production but which, having high export coefficients, represent a significant share of the total of manufactured exports.

Table 3

## CONCENTRATION OF PRODUCTION AND INDUSTRIAL EXPORTS ACCORDING TO RANKS OF EXPORT COEFFICIENTS, 1986

(Number of industrial groups and percentages)

Rank of the export coefficient	Number of industrial groups	Relative share of	
		Production	Exports
More than 50.1	5	4.0	47.0
Between 30.1 and 50	3	0.8	3.0
Between 10.1 and 30	8	14.3	23.4
Between 5.1 and 10	11	15.8	14.3
Less than 5.0	48	65.1	12.3
Total	75	100.0	100.0

Source: Data prepared by the Industrial Development Area of the ECLAC Buenos Aires Office.

This last subset, consisting of only 16 industrial groups, provides a satisfactory analytical framework to complement and expand the foregoing comments. To that end, table 4 shows, for each of these 16 groups, the information concerning the type of manufactured goods involved and concerning the consequent relative share of industrial exports, arranged in the order of the export coefficients of the different groups.

In spite of the similarity between the number of groups in the MIO<sup>9</sup> and MAO<sup>7</sup> categories that make up this subset of sectors oriented more towards foreign markets, their relative share of total exports are substantially different. In fact, the seven MAO groups alone account for more than half of total exports (57.7%) and about 80% of the exports of this subset.

The seven activities included in the MAO category reflect a scheme of industrialization of raw materials that in the majority of cases

reveals comparative advantages at the international level which, as such, are reproduced in their first phases of processing and therefore account for this export behaviour. Within this framework, for example, we may distinguish the oil industry and the leather industry, which, apart from having high coefficients, play a leading role with regard to their contribution to the total value of exports.

In the preceding section the marked export orientation of some MAO groups was associated with the comparative advantages arising from the nature of their main raw material. However, this seems to be a necessary but not sufficient condition, since production in certain activities whose conditions seem to be similar is directed almost exclusively to the domestic market. This is true in the case of the dairy industry, which exported only 2.1% of its output, or the grape and wine industry, which exports only 0.9%. In

Table 4

**ARRANGEMENT OF INDUSTRIAL GROUPS ACCORDING TO THEIR EXPORT COEFFICIENTS, 1986**

(Percentages)

ISIC group	Designation	Origin	Export coefficient	Share of exports <sup>a</sup>
3115	Manufacture of vegetable and animal oils and fats	MAO	89.8 <sup>b</sup>	30.9
3841	Ship building and repairing	MIO	70.9	1.8
3825	Manufacture office, computing and accounting machinery	MIO	67.6	2.5
3231	Tanneries and leather finishing	MAO	61.4 <sup>b</sup>	8.0
3824	Other industrial machinery	MIO	45.0	1.0
3113	Canning and preserving of fruits and vegetables	MAO	32.3	1.9
3233	Manufacture of products of leather and leather substitutes, except footwear and wearing apparel	MAO	30.6	0.1
3720	Non-ferrous metal basic industries	MIO	25.2	2.9
3511	Manufacture of basic industrial chemicals except fertilizers	MIO	21.2	4.5
3851	Manufacture of professional and scientific, and measuring and controlling equipment not elsewhere specified	MIO	18.8	0.3
3829	Machinery and equipment except electrical not elsewhere specified	MIO	16.3	1.4
3116	Grain products mill	MAO	15.2	2.0
3822	Manufacture of agricultural machinery and equipment	MIO	15.2	0.6
3529	Manufacture of chemical products not elsewhere specified	MIO	14.1	1.2
3111	Slaughtering, preparing and preserving meat	MAO	10.3	10.9
3114	Canning, preserving and processing of fish, crustacea and similar foods	MAO	<sup>c</sup>	3.9

Source: Data prepared by the Industrial Development Area of the ECLAC Buenos Aires Office.

<sup>a</sup>Share calculated on the basis of the total amount of industrial exports valued in Australes.

<sup>b</sup>The coefficient of these activities relates to the year 1984, owing to the fact that the information for 1985 and 1986 is not sufficiently coherent.

<sup>c</sup>The coefficient of this activity could not be estimated, owing to problems with the basic information, but their value too is well over 10%.

Table 5

**ENTERPRISES EXPORTING MANUFACTURED GOODS OF INDUSTRIAL ORIGIN  
WITH A VALUE GREATER THAN US\$10 MILLION, 1984**

Export coefficient	Branch of activity	Main product exported
<b>1. Less than 25%</b>		
Y.P.F.	Oil refinery	Fuel oil
Petroquímica Bahía Blanca	Processing of various petroleum and coal products	Ethylene
Esso	Petroleum refinery	Coke
Saab Scania	Manufacture and assembly of automobiles	Trucks
Ford Motor	Manufacture and assembly of automobiles	Automobiles
Sevel	Manufacture and assembly of automobiles	Automobiles
Renault	Manufacture and assembly of automobiles	Automobiles
Fiat	Manufacture and assembly of automobiles	Trucks
Acindar	Iron and steel basic industries	Wire
Aluar	Non-ferrous metal basic industries	Aluminium
D.G.F.M.	Manufacture of weapons and other products	Brass sections
Hughes Tool	Construction and repair of machinery and equipment for industry	Drills
<b>2. More than 25%</b>		
Petroquímica General Mosconi	Industrial chemicals	Benzene
Polisur	Processing of petroleum and coal derivatives	Low-density polyethylene
Pasa Petroquímica Argentina S.A.	Processing of petroleum and coal derivatives	Rubber S.B.R.
Unitan	Manufacture of leathers of all kinds	Quebracho extract
F.I.F.A.	Manufacture of chemical products not elsewhere classified	X-ray plates
Lepetit	Manufacture of medicines and pharmaceutical products	Medical products
Copetro	Processing of various petroleum and coal derivatives	Calcined coal
Destilerías Argentinas de Petróleo	Petroleum refineries	Fuel oil
Boroquímica	Manufacture of basic chemicals	Borax
Indunor	Manufacture of leathers of all kinds	Quebracho extract
I.B.M. Argentina	Manufacture of office, computing and accounting machinery	Printers
Dalmine Siderca	Iron and steel basic industries	Seamless tubing
Propulsora Siderúrgica	Iron and steel basic industries	Steel casings
Refinerías de Metales Uboldi	Non-ferrous metal basic industries	Aluminium casings
Alto Paraná S.A.	Manufacture of paper pulp	Paper pulp
Astilleros Alianza	Ship building and repairing	Ships

*Source:* Data prepared by the Industrial Development Area of the ECLAC Buenos Aires Office.

the complex of products associated with leather, we find the same phenomenon; moreover, this tends to be accentuated as the total value assumed for each production phase increases. Indeed, while tanneries exported almost all of their output, the footwear industry exported only 5.9%.

With regard to MIO activities, we should include at the outset a warning associated with the fact that the level of aggregation of the information in terms of industrial groups includes a number of submarkets, which in many

cases have very different export orientations. Merely for purposes of illustration, the group of iron and steel basic industries includes both the production of round steel sections for construction and the manufacture of seamless steel tubing, even though the two products have very different orientations with respect to the international market. Similarly, each submarket includes enterprises whose behaviour and export possibilities are markedly different.

This last reference takes on a leading role in the explanation of some of the highest export

coefficients, where the behaviour of one firm or a small number of firms with a solid export base determines the existence of such a coefficient. This suggests that if we attempt to interpret export behaviour, we must in many cases study the behaviour of these enterprises rather than the industrial activity in which they are engaged. Typical situations of this kind are found in the manufacture of computer printers, in aluminium, in seamless steel tubing (as part of the iron and steel industry), in some petrochemical products, etc.

Lastly, we should also draw attention to the existence of relatively high export coefficients in some metalmechanical sectors, activities in which Argentina has developed a number of comparative advantages, in particular with regard to manufacturing in short and flexible series with a high skilled-labour content. Among these activities we should emphasize some types of industrial machinery and apparatus, both mechanical and electrical, professional and scientific equipment, etc. (table 5).

## II

### The composition of industrial exports in 1986

An initial view of the overall framework in which we consider the sectoral trajectory and composition of manufactured exports is given by their impact on the country's total foreign sales. To that end, table 6 shows the evolution of Argentine exports, in current dollars, broken down according to the most important large sectors of activity that generated them. This also enables us to verify that in spite of the persistent recovery occurring during the last three years, the share represented by industrial exports in total exports for the year 1986 (66%) is lower than the value for 1973 (67.2%) (table 6).

One of the essential characteristics of the profile of manufactured exports is the marked specialization of these exports and the existence of a small nucleus of activities that account for almost all foreign sales. At a higher level of disaggregation—the industrial subgroup, five digits of ISIC Rev. 2— this phenomenon becomes even more marked. Indeed, more than three fourths of industrial exports for the year 1986 is concentrated in only 11 activities, out of a total of 172 industrial subgroups (table 7).

The differentiation of exported manufactured goods according to their sectoral origin is particularly important, not only because it gives us a better characterization of the profile of these exports but also because of its implications from the standpoint of the productive linkages implicit in this, the consequent effect on employ-

ment, the capturing and transfer of sales associated with international trade, the degree of dependence on imported inputs and on primary production, etc.

On the basis of the classification of all the industrial groups as MAO or MIO, depending on the predominant type of manufacturing, we can see (table 8) that the former represent about two thirds of the value of total exports for 1986. The share represented by MAO is almost double the share represented by MIO, even though with regard to the number of industrial groups in each category the ratio is the reverse.

An initial analysis of the different producer and exporter groups in the MAO category reveals in this case—just as at the overall level—a very high degree of concentration of exports. It is sufficient to point out that the five most important industrial subgroups contribute more than 85% of MAO exports, with a clear preponderance of the oils and fats category, which is enough by itself to account for almost half of this total. This marked degree of concentration is thus due to a small number of activities whose production processes, in general, involve a very small incorporation of aggregate value and a limited diffusing effect (employment, productive linkages), although, at the same time, they presuppose a highly positive foreign-currency balance, in view of the low impact of imported inputs.

Table 6  
COMPOSITION OF EXPORTS ACCORDING TO SECTORS OF ACTIVITY 1973-1986

(Percentages and millions of current US dollars)

Year	Agriculture, hunting and fishing	Manufacturing industries	Mines and quarries	Other	Total	
					Percentage	Millions of US dollars
1973	32.04	67.20	0.20	0.56	100	3 266.0
1974	39.54	59.10	0.39	0.47	100	3 930.7
1975	44.25	54.95	0.31	0.48	100	2 961.3
1976	38.37	60.28	0.20	1.35	100	3 916.0
1977	37.34	60.40	0.16	2.04	100	5 651.8
1978	35.99	61.09	0.32	2.60	100	6 399.5
1979	36.40	61.23	0.24	2.13	100	7 809.9
1980	34.69	63.27	0.42	1.62	100	8 021.4
1981	43.41	55.09	0.30	1.15	100	9 143.0
1982	37.81	63.16	0.20	1.19	100	7 624.9
1983	46.26	53.37	0.24	0.13	100	7 835.0
1984	43.18	56.20	0.18	0.25	100	8 107.0
1985	40.09	58.46	1.03	0.42	100	8 396.0
1986	33.47	65.99	0.52	0.02	100	6 852.2

Source: Data prepared by the Industrial Development Area of the ECLAC Buenos Aires Office.

Table 7  
MAIN INDUSTRIAL SUBGROUPS OF ORIGIN OF THE  
EXPORTS OF MANUFACTURED GOODS, 1986

ISIC	Industrial subgroup	Millions of US dollars	Percentage
31151	Processing and refining of vegetable oils and fats	1 406.5	31.1
31111	Slaughtering of livestock, preparation and preservation of meats	485.2	10.7
32312	Tanneries	334.1	7.4
37100	Iron and steel basic industries	324.0	7.2
31140	Processing of fish, molluscs, crustaceans and similar foods	172.3	3.8
35119	Basic industrial chemicals not elsewhere specified	155.3	3.4
35300	Petroelum refineries	127.5	2.8
37200	Non-ferrous metal basic industries	108.4	2.4
38251	Manufacture of office, computing and accounting machinery	106.1	2.3
38410	Ship building and repairing	88.6	2.0
31132	Processing and shipping of fruits, horticultural products and vegetables	85.0	1.9
	Subtotal for 11 subgroups	3 393.1	75.0
	All other industrial subgroups (161)	1 128.7	25.0
	<b>Total</b>	<b>4 521.9</b>	<b>100.0</b>

Source: Data prepared by the Industrial Development Area of the ECLAC Buenos Aires Office.

Table 8  
**COMPOSITION OF INDUSTRIAL EXPORTS  
 ACCORDING TO TYPES OF MANUFACTURE, 1986**  
*(Absolute values, millions of dollars  
 and percentages)*

Groups	Number of industrial groups	Exports	
		Millions of US\$	Percentage
Manufactured goods of agricultural and stock-raising origin (MAO)	24	2 924.3	66.67
Manufactured goods of industrial origin (MIO)	57	1 597.6	33.33
<b>Total</b>	<b>81</b>	<b>4 521.9</b>	<b>100.00</b>

*Source:* Data prepared by the Industrial Development Area of the ECLAC Buenos Aires Office.

In the case of MIO, the five most important subgroups taken together contribute slightly over 50% of the total—the corresponding share for MAO was 85%—and recently, with the inclusion of the exports derived from nine industrial subgroups, it has amounted to more than two thirds of the total.

From the analysis of the nine MIO production subgroups that make the most significant contribution to exports, we find, in the first place, the leading role played by some industries that produce intermediate inputs, such as the basic metal industries (ferrous and non-ferrous), the sector of industrial chemicals, petroleum

refineries and some other chemical industries. Within this framework, the combined amount of intermediate products produced and marketed abroad by five of the nine main exporting subgroups represents nearly 50% of total MIO exports.

In the second place, we observe the decisive presence of some subgroups whose exports may be characterized as dependent on the economic situation, or simply on circumstances in general, since they are caused by the contraction of the domestic market (most of those mentioned earlier) or are the result of bilateral agreements of a strictly limited nature (the case of ship building).

In the third place, we can clearly see the importance taken on by trade "negotiated" as part of bilateral or multilateral agreements, as well as trade carried on within the captive framework of certain transnational enterprises as a function of the process of integration and/or productive complementation on a world-wide scale or of the distribution of market areas among their various subsidiaries (office and accounting machines and motor vehicles).

Another feature of MIO exports, at least with respect to the majority of the main industrial subgroups that generate them, consists in their marked polarization towards a very small nucleus of enterprises. This obviously is not unrelated to the actual conformation of the productive structure of these branches; a common feature of these is a high degree of oligopolization, which is even greater with regard to sales to foreign countries.

### III

## Changes in the sectoral composition of industrial exports

During the period under analysis there was a series of important changes in the sectoral composition of Argentina's industrial exports. However, the changes that took place have not altered one of the defining characteristics of manufactured-goods exports, namely, their high degree of specialization in a small number of industrial groups, which actually determine the magnitude of this trade flow. In the year 1973,

among the 81 industrial groups, there were only 16 that contributed more than 1% of total exports, and these 16, taken together, accounted for 87% of exports. In 1986 there were only 17 groups contributing more than 1%, and they accounted for 88.4% of the total.

Within the framework of this very limited degree of diversification of exports, there have nevertheless been a number of significant

changes in their composition. A breakdown of total exports into the nine industrial divisions involved enables us to obtain an initial characterization of their sectoral structure.

In the first place, the industrialization of foodstuffs, beverages and tobacco products can be seen to be the most significant grouping: during the period 1973-1986 it accounted for 52.5% of industrial exports.

On the other hand, three of the divisions have not gone above a 1% share of industrial exports in any of the years considered. These divisions are the wood and furniture industry, the production of non-metallic minerals and the miscellaneous-industries division.

Some industries which produce intermediate goods, such as the chemical industry and, to a lesser extent, the metal basic industries, account for a growing share of industrial exports. In contrast, in spite of the slight recovery recorded during the last three years, metalmechanical production has fallen in rank, to the point where, after a peak share of 27.5% in 1975, it has represented little more than 10% of the total during the last few years. Lastly, the division of textiles, ready-to-wear clothing and leather has accounted during this period for somewhat more than 10% of the exports of the industrial sector.

An aggregated presentation of these data provides us only with a very general interpretive view, since it does not give a precise idea of the changes that have taken place during the period. This is why a more detailed breakdown is needed (table 9).

### 1. *The traditional industries*

It has already been mentioned that the division of foodstuffs, beverages and tobacco accounted for a high percentage of total industrial exports. In reality its contribution is closely associated with vegetable-oil producers and meat packers, which account for more than three fourths of food sales to foreign countries. The trajectory of these sales shows an important change in the contribution of each of these activities to exports. In this respect the shares represented by meat and oils thus exhibit a "countercurrent" behaviour, which in a sense is complementary, not because of their functionality but because of their capacity to generate foreign currency. During the period 1973-1979 the meat-packing

industry represents, on average, 25% of industrial exports; its share reaches a maximum of almost 40% in 1973 and drops to 12.4% in the five years between 1982 and 1986 (table 9). The situation of the international demand, strongly influenced by the policies of the European Economic Community, both with regard to import restrictions and with regard to subsidies for the export of basic commodities, plays a decisive role in this decline in the share accounted for by meat exports. Even though domestic consumption levels have remained as high as before, the meat-packing industry today has a large amount of unused capacity, a number of plants have been closed, indebtedness is growing, employment has been severely reduced, and there is a general deterioration in production.<sup>10</sup>

The oil industry, for its part, shows a totally opposite behaviour, both in production and in exports. Between 1973 and 1976 it accounts for 11% of the value of industrial exports, a share which rises to 15% between 1977 and 1982 and continues to grow with great vigour, so that it exceeds 30% of the total between 1983 and 1986. Whereas oil exports brought in US\$234 million in 1973, in 1986 the value was in excess of US\$1.4 billion, representing almost one third of the exports of industrial products. The increase in Argentina's production of oilseeds, a raw material vital for processing, served as the basis for this export dynamism. Supplementing this agricultural development, there was a consolidation in local industrial production, and a substantial percentage consisted of national enterprises, which in turn supplemented the small number of transnational enterprises linked to the international marketing of grains (Feldman, 1985). Similarly, during the past decades there has been a significant amount of investment, which has made possible the modernization, expansion and opening of industrial plants with international state-of-the-art technology, most of them situated near the areas of production and the ports of embarkation for their international marketing. It has likewise been reflected in the construction of infrastructure installations for the storage and transport of raw materials and finished products (INDEC-ECLAC, 1987).

<sup>10</sup>In this connection, see, among others, Cavadini and Sarachu (1986).

Table 9

## SHARE OF REPRESENTATIVE GROUPS IN THE TOTAL OF MANUFACTURED-GOODS EXPORTS, 1973-1986

(Percentages)

Group	Designation	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
3	Manufacturing	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
311	Food manufacturing	61.70	54.09	48.69	51.73	53.22	48.65	53.68	49.30	45.04	44.04	56.01	55.87	44.80	51.05
3111	Slaughtering, preparing and preserving meat	39.45	20.43	18.93	24.01	20.69	23.11	28.48	21.67	20.90	17.71	15.38	9.87	8.16	10.74
3115	Manufacture of vegetable and animal oils and fats	10.76	11.06	10.57	11.85	17.30	14.96	15.84	15.16	12.54	15.72	25.40	33.95	29.54	31.26
321	Manufacture of textiles	4.71	3.40	6.00	7.06	7.40	8.53	4.61	5.94	4.31	4.43	3.29	4.41	4.94	3.66
3211	Spinning, weaving and finishing textiles	4.56	3.26	5.89	6.87	7.10	8.20	4.52	5.89	4.23	4.31	3.17	4.29	4.78	3.36
323	Leather	4.98	4.12	4.10	6.32	6.32	7.44	10.30	7.70	7.62	6.50	6.48	6.51	6.20	8.00
3231	Tanneries and leather finishing	4.67	3.73	3.81	5.63	5.43	6.40	8.90	6.11	6.70	5.92	6.13	6.38	5.96	7.63
3232	Fur dressing and dyeing industries	0.05	0.11	0.10	0.38	0.57	0.60	0.98	1.26	0.81	0.53	0.30	0.10	0.21	0.32
3233	Manufacture of products of leather and leather substitutes	0.26	0.28	0.18	0.29	0.31	0.43	0.41	0.32	0.10	0.04	0.04	0.03	0.03	0.05
3240	Footwear	0.97	1.25	0.32	0.29	0.66	0.55	0.19	0.05	0.05	0.13	0.12	0.05	0.05	0.19
351	Manufacture of industrial chemicals	2.92	4.39	4.19	4.10	3.66	3.50	3.47	4.40	4.75	5.48	6.28	5.58	6.72	6.09
3511	Manufacture of basic industrial chemicals except fertilizers	2.00	3.01	3.77	3.75	3.08	3.03	2.99	3.93	4.24	4.54	4.67	4.05	5.23	4.50
3513	Manufacture of synthetic resins plastic materials man-made fibres except glass	0.85	1.31	0.35	0.30	0.49	0.40	0.40	0.40	0.46	0.90	1.56	1.47	1.39	1.41
3529	Manufacture of chemical products not elsewhere specified	0.67	0.82	0.94	0.72	0.71	0.81	0.98	1.66	1.24	0.81	1.39	1.19	0.80	1.15
3530	Petroleum refineries	0.12	0.21	0.10	0.44	0.42	0.74	0.67	5.22	12.18	10.86	7.25	6.82	10.76	2.82
3710	Iron and steel basic industries	5.08	5.69	1.36	3.77	2.37	5.60	4.14	2.84	5.41	6.91	4.54	4.02	6.95	7.17
3720	Non-ferrous metal basic industries	0.25	0.27	0.03	0.19	0.21	0.52	1.21	2.76	2.63	2.17	1.99	1.99	2.60	2.40
382	Machinery and equipment except electrical not elsewhere specified	6.19	8.28	13.47	7.86	6.54	6.80	5.94	6.26	5.62	7.52	4.11	4.04	4.95	5.49
3821	Manufacture of engines and turbines	0.38	0.54	0.70	0.32	0.28	0.62	0.20	0.52	0.21	0.23	0.22	0.06	0.007	0.10
3822	Manufacture of agricultural machinery and equipment	1.00	1.72	2.53	1.18	0.71	0.92	0.90	0.34	0.27	0.75	0.04	0.09	0.15	0.61
3825	Manufacture of office, computing and accounting machinery	1.50	1.81	3.32	1.82	1.32	1.11	1.07	1.25	1.96	2.04	1.82	1.85	2.38	2.36
383	Manufacture of electrical machinery, apparatus, appliances and supplies	1.42	1.92	2.15	1.47	1.22	1.54	1.45	1.28	1.01	0.88	0.68	0.72	1.14	1.07
3832	Manufacture of radio, television and communication equipment and apparatus	0.66	0.72	0.62	0.53	0.29	0.42	0.63	0.30	0.24	0.18	0.19	0.22	0.05	0.15
384	Manufacture of transport equipment	4.36	5.86	9.11	7.97	6.29	4.80	3.16	3.25	2.39	3.16	2.19	3.85	4.11	4.56
3841	Ship building and repairing	0.05	0.04	0.69	0.83	0.17	0.24	0.15	0.46	0.93	0.27	0.55	1.60	1.94	1.96
3842	Manufacture of railroad and equipment	-1	0.07	0.54	0.95	1.39	0.62	0.18	0.13	0.01	-1	0.01	0.05	0.02	0.02
3843	Manufacture of motor vehicles	4.29	5.72	7.85	6.15	4.69	3.92	2.73	2.58	1.34	1.91	1.61	2.18	2.11	2.57

Source: Data prepared by the Industrial Development Area of the ECLAC Buenos Aires Office, on the basis of data from INDEC.

In addition to the "countercurrent" behaviour of the oil and meat-packing sectors, the various groupings of foodstuffs, beverages and tobacco exhibit rather different trajectories. Thus, the shares represented by products of the fishing industry has increased from less than 1% during the period 1973-1981 to 3.4% during the five years between 1982 and 1986. At the same time, the dairy industry's share, which was 1.7% between 1973 and 1978—reaching a maximum of 2.8% in 1976—drops to an average of 0.7% in 1979-1986. There are also categories whose behaviour remains stable, such as coffee, tea and mate (1 to 1.5%) and milled products (2 to 3%).

The exports of the sugar industry exhibit sharp ups and downs, resulting from changes in international market conditions and in the quotas allowed. This activity generated an average of 4% of the exports, a figure which conceals very wide fluctuations, ranging from 12.6% in 1974 to less than 0.6% during the past two years.

Lastly, attention should be given to a large group of activities which have a slight or non-existent share of foreign sales. In no year of the series did any of the remaining eight industrial groups of the food complex exceed 1% of industrial exports (tobacco and alcoholic beverages; non-alcoholic beverages; beer and malt; wines and cider; balanced foodstuffs; cacao and confectionery products; and baked goods).

Among the exports of the grouping consisting of textiles, ready-to-wear clothing and leather goods, 90% was accounted for by two groups: the group of yarns, fabrics and finished clothing (essentially yarns and washed wool) and the group of leather tanning. The exports of yarns and fabrics—with an average share of about 5% of the total between 1973 and 1986—has had a cyclic behaviour similar to that of the entire grouping and goes far towards explaining the overall performance of the textile sector. On the other hand, in the leather sector the internal behaviour is more heterogeneous. The exports of products requiring a higher degree of processing tend to decrease in importance in comparison with those of tannery products. Indeed, exports of shoes, which during the six years from 1973 to 1978 represented 0.7% of the total, with a maximum value of 1.3% in 1974, now show a marked decrease, to the point where in 1979-1986 the average value was only 0.1%. At the same time, the share represented by semi-

finished leather exports, which in the three years from 1973 to 1975 amounted to 4% of exports, increased to a little over 10% in 1979 and then stabilized at about 6 to 7%. The figures in absolute values speak for themselves. In 1986 leather exports accounted for nearly US\$350 million, while the footwear industry's exports amounted to barely US\$8.8 million.

## 2. *Industries producing industrial inputs*

We have already mentioned the particular and dynamic behaviour of the chemical complex. Indeed, the chemical industry increased its share from 6.8% of the total exports of manufactured goods during the period between 1973 and 1979 to 16.8% during the period from 1980 to 1986. This behaviour is accounted for solely by petrochemical plants and the refining of fuels derived from petroleum. Petrochemical plants have doubled their share of industrial exports in recent years, while the refineries, which until 1979 had represented less than 0.5% of foreign sales, increased their share to 8.8% during the six years from 1980 to 1985, dropping to 2.8% during the last year.

The explanation of this growth can be found in an analysis of two crucial aspects: the situation of the domestic market and the maturing of some investment projects in the industrial sector. Thus, the export behaviour of the chemical industry is based in large measure on the critical evolution of the Argentine domestic market, which has been characterized by permanent drops in levels of activity. In the case of continuous-process industries the foreign market emerges as an anticyclical alternative, since it serves as an outlet for surpluses not sold in the domestic market. In turn, near the end of the 1970s we see the start of the operative phase of a series of large plants producing widely used industrial inputs, which had been planned at the beginning of the decade on the assumption that the rates of growth of demand observed during the 1960s would be maintained. This extension of the process of import substitution to cover several activities which produced intermediate goods was confronted, at the moment when it went into operation, by a local market that was much smaller than the one originally planned, and added to this were serious lags in the timing

of several connected projects. Similarly, the production of fuels, which was aimed at self-sufficiency, encountered a reduced domestic demand, and as a result, not only was this initial objective satisfied but, in addition, considerable surpluses were left over for export (ECLAC, 1986b).

Basic metal industries have also substantially increased their share of industrial exports. Such a process is observed most particularly from 1978 on. Up to that point we should recognize two clearly differentiated subperiods: the two years from 1973 to 1974, during which such industries contributed more than 5% of industrial exports, and the three years from 1975 to 1977, during which governmental restrictions on the foreign sale of products that could be used for the iron and steel industry helped to bring about a decrease in the impact of basic metal industries to a figure of the order of 2.6%. The exports of this branch increased to almost 6% of the industry's total during the three years from 1978 to 1980, almost 8% between 1981 and 1984 and almost 10% during the two years from 1985 to 1986. The explanation of this growing importance is not very different from the explanation given for the petrochemical sector. The entry into operation of new plants, especially for the manufacture of aluminium, which resulted from the restructuring of the iron and steel industry, and the low level of local demand were responsible for the exports of intermediate products with a low degree of processing, marketed in practice as "commodities" in a competitive international market, where the prevailing price levels were much lower than those in the local market.

### 3. *The metalmechanical industries*

Very different from these is the behaviour of the output of metal products, machinery and equipment. After continued losses in importance in comparison with other industrial exports, the sector shows a slight recovery during the last three years. Whereas during the period between 1973 and 1978 its share amounted to 18.2%, with a maximum of 27.5% in 1975, the share between 1979 and 1986 amounts only to 10.9%, notwithstanding the systematic recovery observed during the last four years (7.7% in 1983 and 12.1% in 1986). The phenomenon is common to almost all the groups making up this

grouping. The occasional and negotiated exports of the shipbuilding industry and the dynamic export behaviour of a few enterprises (IBM, Hughes Tool, Saab Scania, Volkswagen, Ford Motor, etc.) may be viewed as exceptions —and delaying factors— to the decrease in the metal-mechanical complex.<sup>11</sup>

This decrease in the share represented by the metalmechanical sector emerges as a logical result of the process of de-industrialization that characterizes the performance of Argentine industry. The subsidies and reimbursements to the exports of the sector, which enabled it to assume the leadership role in foreign sales, were not associated with a transformation and modernization of its productive base. On the contrary, as a result of the implementation policies that decreased the incentives for industrial activity, investment proved to be insignificant, research and development teams were disbanded, and the country found itself bypassed by the international technological revolution in the industrial organization of these production processes (Katz, 1988; Nochteff, 1984).

To sum up, during the period from 1973 to 1986 there have been a number of changes in the sectoral composition of industrial exports. At the level of foodstuffs production, which is the activity with the greatest relative weight, special importance attaches to the regression of the meat-packing industry and, in the opposite direction, the behaviour of the oil industry. Similarly, in recent years there has been a greater share accounted for by exports originating in the industries that manufacture intermediate products, where the foreign market generally operates as an anticyclical outlet to compensate for the low levels of domestic demand. In contrast, a substantial part of the limitations of the recent model of Argentine industrialization has been evidenced in the loss of positions by the metal-mechanical complex and by the industries with the greatest capacity for generating aggregate value. These changes have taken place in a permanent context of low-degree sectoral diversification of industrial exports, which, in any case, are generated essentially by a small number of enterprises.

<sup>11</sup>The exports of these firms are to be viewed as part of the framework of strategies for the international division of labour within the major corporations of which they are a part.

## IV

## The real evolution of exports of manufactured goods

The rigorous analysis of the behaviour of industrial exports over more than a decade requires, first of all, establishing the true trajectory they have followed, and to do this, we must subject the figures to adjustments which will correct the effects of changes in international prices.

The deflator or price indicator used for this purpose depends on the phenomenon whose hierarchy we wish to describe. This is why in the present study we have decided to consider two distinct factors used for conversion to homogeneous units: i) the United States Wholesale Price Index, regarded as a "representative" indicator of international inflation and tending to reflect the "purchasing power" of Argentina's industrial exports; and ii) The Unit Value Index in dollars (base: 1970 = 100) of Argentine exports, prepared by ECLAC for a wide range of industrial goods.<sup>12</sup> In this last case, the results obtained tend to denote the sectoral evolution of the physical volume of production which is oriented towards foreign markets.

The results will differ substantially, depending on which indicator is used. This fact is even more valid during the past decade, in view of the fact that these years have seen profound changes and readjustments in the structure of relative prices prevailing in the international markets. These phenomena bring on changes of greater or lesser importance and of a highly diverse nature in the real value of the foreign sales made by the countries which export manufactured goods; the scope and direction of these changes will depend on the composition of foreign sales and on the trajectory of their respective unit values.

The figures in table 10, which show the annual evolution of the exports of Argentine manufactured goods, expressed in current dol-

lars, demonstrate the different effects derived from the indicator used to homogenize them. Whereas the real "purchasing power" of industrial exports was reduced by 6.4% at the end of a decade and a half, the "physical volume" exported is found to have increased by more than 80%.

The gap in the behaviour of the two series becomes particularly wide during the present decade. Thus, during the subperiod from 1973 to 1980 the real "purchasing power" of industrial exports increased by 17.1%, while the "physical volume" increased by 24%. Between 1980 and 1986, on the other hand, while the volume exported increased by slightly over 45%, the purchasing power of the exports decreased by 20%. In other words, in order to preserve during the period from 1980 to 1986 the "purchasing power" that industrial exports had during the initial year, the "physical volume" of these exports —with identical structural composition— would have had to be increased by almost 83%.

#### 1. "Export effort" and "purchasing power" depending on sectors of origin

The comparative analysis of the trajectory of the "purchasing power" and the "export effort" exhibited by the different industrial activities that make up the productive spectrum of the sector enables us to identify the industries in which we find the most intensive contrasts —in other words, the sectors which have undergone the greatest disturbances in their relative prices at the international level. Table 11 reflects the form taken between 1973 and 1986 by the evolution of the exports of the nine industrial divisions.

The foodstuffs industry is seen to be the only industrial division in which we find a "counter-current" behaviour between the physical volume exported (an increase of almost 77%) and the resulting purchasing power (a drop of the order of 22%). In other activities the difference is manifested only in terms of relative intensity.

<sup>12</sup>This index was prepared by the ECLAC Buenos Aires Office within the framework of the programme on "Information and short-term analysis of the Argentine economy". These are indices obtained according to the Paasche formula, that is to say, with variable weights. In contrast, the United States Wholesale Price Index has a fixed product composition (the Laspeyres formula).

Table 10  
EVOLUTION OF INDUSTRIAL EXPORTS AT CURRENT AND CONSTANT VALUES, 1973-1986

(Millions of current US dollars; index, base 1973 = 100)

Years	Current values	Constant values			
		1973 <sup>a</sup>		1984 <sup>b</sup>	
		Millions of US dollars	Index	Millions of US dollars	Index
1973	2 171.7	2 171.7	100.0	5 002.2	100.0
1974	2 342.9	1 935.8	89.1	4 536.4	90.7
1975	1 627.9	1 563.5	72.0	2 883.7	57.6
1976	2 360.6	2 480.5	114.2	4 000.3	80.0
1977	3 417.4	3 217.7	148.2	5 454.6	109.8
1978	3 909.8	3 662.6	168.7	5 791.9	115.8
1979	4 782.7	3 187.2	146.8	6 300.5	126.0
1980	5 075.4	2 692.7	124.0	5 857.1	117.1
1981	5 037.4	2 614.7	120.4	5 328.3	106.5
1982	4 816.4	3 050.1	140.5	4 993.8	99.8
1983	4 182.0	3 180.4	146.5	4 282.2	85.6
1984	4 571.8	3 219.5	148.3	4 571.8	91.4
1985	4 908.0	3 815.4	175.7	4 929.2	98.5
1986	4 521.9	3 931.1	181.0	4 680.0	93.6
Cumulative annual rate (per cent)	5.8	4.7		-0.5	

Source: Data prepared by the Industrial Development Area of the ECLAC Buenos Aires Office on the basis of data furnished by INDEC and by the United States Department of Commerce.

<sup>a</sup>In 1973 dollars, deflated in accordance with the index of unit value of exports according to type of goods, prepared by ECLAC.

<sup>b</sup>In 1984 dollars, according to the United States Wholesale Price Index.

Table 11  
INDICES OF PURCHASING POWER AND EXPORT EFFORT IMPLICIT IN FOREIGN SALES ACCORDING TO INDUSTRIAL DIVISION OF ORIGIN, 1986

(Base, 1973 = 100)

	I Purchasing power 1973 = 100	II Export effort 1973 = 100	III = II/I
Foodstuffs, beverages and tobacco	78.2	176.6	2.26
Textiles, ready-to-wear clothing and leather	104.0	206.1	1.98
Wood and furniture	457.3	675.4	1.48
Paper, printing and publications	61.5	54.1	0.88
Chemical industries	209.6	373.6	1.78
Non-metallic minerals	107.1	158.4	1.48
Metal basic industries	167.5	268.8	1.60
Metal products, machinery and equipment	85.5	88.2	1.03
Other manufacturing industries	40.3	59.6	1.48
Total for all industries	93.6	181.8	1.94

Source: Data prepared by the Industrial Development Area of the ECLAC Buenos Aires Office.

Thus, in five divisions the improvement in the "purchasing power" of exports is associated with the exertion of a much greater export effort. On the other hand, in two industrial divisions (that of metal products, machinery and equipment and that of other manufacturing industries) the reduction in the physical volume exported results in a greater deterioration in purchasing power. Lastly, only in one industrial division—the paper industry, which accounts for barely 1% of total exports—has the drop in physical volume been greater than the drop in purchasing power.

To sum up, in all the industrial divisions, with a single exception, the rate of increase (or decrease) in the export effort is always higher (lower) than its effect in terms of implicit purchasing power. In other words, whatever industrial division we are considering, the trajectory of unit export prices is lower than the trajectory of United States wholesale prices.

This phenomenon of general deterioration in unit export prices is manifested in highly diverse forms in the various industrial activities. Along this line, the relationship between the increase (decrease) in export effort and the corresponding increase (decrease) in purchasing power merely reflects the intensity that this phenomenon assumes in the various industries. On this analytical basis, the only two divisions that reveal a difference—a deterioration in relative prices—greater than the result at the global level are precisely those industries which are most important in terms of their relative contribution to the total of manufactured-goods exports: the industry of foodstuffs, beverages and tobacco and the industry of textiles, ready-to-wear clothing and leather.

It is in these industries that we find most sharply demarcated the fact that there will not necessarily be a correspondence between the intensity of the export effort and the results. Thus, a significant export movement, such as may be presumed from an average annual increase of more than 5%, proved insufficient to compensate for the deterioration experienced in international prices.

By reason of its implications and the magnitude of the values involved, we should emphasize the case of the foodstuffs industry. This expanded its physical volume of exports by almost 80%, which implies a little more than

US\$1 billion, at 1973 prices. Nevertheless, the "purchasing power" of these sales to foreign countries decreased by approximately US\$700 million in 1984. Thus it is evident that the changes made in the relative price structure of the world economy have had an especially heavy impact on food products, and hence on those countries for which foods constitute the main category of exports, as is the case with Argentina.

Even the oil industry, which has come to be an easy leader in the country's export profile, is affected by this dichotomy. In fact, between 1983 and 1986 the physical volume of its exports increased by a factor of 7.2, while the purchasing power of those exports was less than tripled.

Even though the magnitude of the values involved is very different from the preceding example, identical considerations are found in the case of textile industries. The increase in the physical volume exported implies an average rate of 5.7% per year, but the resultant improvement in purchasing power is insignificant. In this case, doubling the physical volume of exports (an increase of 106.1%) was enough only to keep the purchasing power derived from them practically constant (a gain of 4.0%).

This is the reason for the conclusion that the considerable export effort exerted by most of the groups included in the food industry<sup>13</sup> and the textile industry (17 of the 22 groups increased the physical volume of their exports) resulted in a drop in the implicit purchasing power (seven groups) or an increase in purchasing power much smaller than the increase in physical

<sup>13</sup>One of the most striking characteristics of international trade from 1980 to today consists in the persistent deterioration of the prices of most basic products, especially those which directly or indirectly, through their local industrial processing, take on a leading role in Argentina's export profile. Simply as an illustration, and on the basis of information published by UNCTAD in its *Monthly Bulletin of Basic Commodity Prices*, we note the following evolution of some commodities:

Years	Beef U.S. cents/ lb.	Maize US\$/ ton	Wheat, US\$/ ton	Sugar, U.S. cents/ lb.	Soy beans, US\$/ ton
1980	125.87	210.3	206	28.86	296
1981	112.15	181.0	191	16.89	288
1982	108.39	137.4	167	8.41	245
1983	110.72	162.4	140	8.46	282
1984	102.57	167.3	136	5.20	282
1985	97.40	135.1	111	3.79	228
1986	95.00	111.1	89	6.05	208

volume (nine groups). The relative international prices of the industrial activity that is omitted (fishing), as well as of the dairy industry, the only one of the five in which we find a reduction both in the physical volume of exports and in the implicit purchasing power, exhibit a certain degree of recovery between 1973 and 1986.

Apart from the examples relating to the industries which contribute the largest share of the export profile, there is a series of groupings and branches of industry in which we also find clear divergences between the evolution of the physical volume and the trajectory of the "purchasing power" of their exports. Three cases that deserve mention are: i) basic chemicals, for which the physical exports multiplied almost fivefold but the implicit purchasing power was barely doubled; ii) the iron and steel industry,

whose export effort increased at an average cumulative rate of 6.5% per year while its "purchasing power" increased at an average rate only slightly over 2% per year; iii) the transport-materials industry, in which a virtual stagnation in the physical volume of exports (an increase of barely 0.8%) is matched by a drop equivalent to 0.2% per year in the implicit "purchasing power". These results are, strictly speaking, based on two opposite types of behaviour. On the one hand we have the shipbuilding industry, whose exports increased at an average rate of more than 30% per year, with the two indicators agreeing. On the other hand, we have the automobile industry, whose physical volume of exports has shrunk at an annual rate of slightly more than 4%, while its "purchasing power" is dropping at a slightly higher rate (4.3% cumulative annual rate).

## V

### Some final considerations

The study of the trajectory and composition of the exports of manufactured goods during the period between 1973 and 1986 enables us to draw a series of useful conclusions. Taken together, they help us to obtain a better characterization of the profile of external sales, the principal patterns of behaviour, the consequent modifications in the composition and, summing up, those aspects which must be interpreted as an indispensable prerequisite for the design and formulation of policies that affect their future behaviour.

The quantitative data corroborate the orientation of Argentina's industrial production primarily towards the domestic market. Its opening towards exports has not changed substantially in recent years, unlike what happened in the agricultural and stock-raising sector, which, in addition to contributing a larger share of the exports sent to foreign markets, has shown greater dynamism, thanks to its agricultural subsector.

In contrast, industry inhibits a heterogeneous pattern with regard to its share of exports. On the one hand, we note the greater importance of

MAO activities in comparison with MIO activities. On the other hand, only a small number of activities have gained a significant share of foreign markets, in a context of industrial activities which cater almost exclusively to domestic demand. This last fact became evident when we quantified the high percentage of industrial production that is generated in the activities with a reduced opening towards exports and, asymmetrically, the high concentration of exports in a small number of industrial groups that exhibit high export coefficients.

Similarly, although during the past few years there has been no substantial change in the export orientation of the industrial sector, there have been important changes in the structure of its sales to foreign countries. Within the MAO groups we find the special export dynamics of the oil industry, in contrast with the sharp loss of foreign markets suffered by the meat-packing industry. While within the MIO groups we observe a drop in the metalmechanical complex, foreign markets take on a growing importance for some industries that manufacture widely used intermediate products. These have been

established in recent years on the basis of market forecasts more optimistic than the eventual facts justified, and as a result they have begun to export their output, in response to the stagnation in domestic demand. Likewise, attention should be given to the strong impact of some firms which are decisive in the export conduct of various industrial groups and in the total value of exports.

The recessive context in which the world economy has been developing since the mid-1970s and the growing proliferation of restrictive trade practices constitute two of the central elements found on the international scene during the period under analysis. It is in this framework that we must view the slowdown in the international flow of goods, which had a particularly heavy impact on the flows of manufactured goods originating in some of the countries where industrialization has been late in coming. This fact is also reproduced in the Argentine example, in which this loss of dynamism is so severe that the increase found in exports at current values between 1973 and 1986 (5.4% per year) has proved insufficient to compensate for international inflation. Thus, evaluated in 1984 dollars, the exports of manufactured goods are *decreasing* at an average cumulative rate of 0.4% per year.

This decrease in the "purchasing power" that is implied by the foreign sales of industrial goods is in sharp contrast with the trajectory of physical exports, which increased more than 80% between 1973 and 1986. This phenomenon becomes particularly marked during the 1980s and reflects the profound changes occurring in the structure of relative prices prevailing in world trade.

The interaction between the relative deterioration of the international prices of primary commodities and the decisive influence of the various processing industries on the sectoral profile of the country's industrial exports has proved to be a key factor. In fact, it explains why an increase of more than 80% in physical volume was insufficient to preserve the "purchasing power" of the exports of manufactured goods.<sup>14</sup>

<sup>14</sup>During the present decade this severe deterioration in export prices associated with the country's growing foreign indebtedness has become a highly damaging limitation on the growth of the Argentine economy.

We must also consider the alterations that have taken place in the structure of industrial exports: in the field of MAO exports, the increase in oil and the drop in frozen meats; in the field of MIO exports, the reduction in metal-mechanical products of high aggregate value and their increasing replacement by widely used industrial inputs. These phenomena gave rise to changes of great importance in the destination of Argentina's foreign sales. Thus we see a significant drop in the share represented by Latin American countries (both for MAO and for MIO) and an increasing impact of the United States market (essentially MIO) and the Asian and Soviet markets.<sup>15</sup>

We cannot ignore the fact that at the end of the last decade and a half we have seen profound alterations in the profile of manufactured-goods exports. Nevertheless, their magnitude and intensity are not sufficient to change one of the essential characteristics of this profile: the fact that it is not highly diversified—in other words, that it is highly concentrated in a very small number of industrial activities.

The same thing is happening with regard to its configuration in terms of enterprises, where we again see a significant concentration of exports in a very small number of firms.<sup>16</sup> One structural aspect consists in the fact that transnational enterprises represent only a small share of Argentina's export flow, that is to say, they account for one fifth of the total, a value less than their relative share of industrial output.<sup>17</sup> The

<sup>15</sup>In many of these cases this presupposes going from a position of "profitable" sales to a situation of "price-takers". See ECLAC, Buenos Aires Office, *Destino de las exportaciones argentinas de manufacturas, 1973-1983* ("Destination of Argentine exports of manufactured goods, 1973-1983"), Industrial Development Area, July 1986b (mimeo).

<sup>16</sup>About four fifths of industrial exports are generated by some 200 firms. If the analysis is restricted to the information obtained from a questionnaire sent to the principal exporting firms—which, taken together, account for 76.9% of industrial sales abroad in 1984—we find that 29 of them generate more than half of the total value of exports (INDEC-ECLAC, 1987).

<sup>17</sup>At the same time when they were established in the country, one of the arguments cited in their favour was that they would promote the dissemination of technical progress in the local sphere. However, their preferential orientation towards the domestic market and their technological "lag" on the international scene explain why they have such a weak position in world markets.

exports of these enterprises consist chiefly of sales made to associated firms established in other countries, as is the case with the exports of computing and office machinery, parts and pieces for motor vehicles, petroleum equipment, etc. (ECLAC 1985; INDEC-ECLAC, 1987).

In the current debate on the possibilities of expansion of the Argentine economy, it is believed that increasing the country's industrial exports constitutes an urgent imperative for overcoming the restrictions imposed by the external imbalance, as well as for recovery of the level of activity and employment, and even for modernization of the productive apparatus.

At this level, there are wide areas of agreement. However, in practice there is no quantification of the potentialities existing in the present industrial structure for greater dynamism in its export behaviour. In a recent study (ECLAC, 1986a) it is estimated that a repetition of the best performances reached in some year of the period from 1973 to 1986 in each of the activities would require doubling the exports made in 1986.

Historically, however, the maximum export values attained in many industrial branches have tended to coincide with the periods of most decided support for the export of manufactured goods. Consequently it is probable that a repetition of such successes would require, as a necessary but not sufficient condition, the application of the various mechanisms of income transfer (Bisang, 1986) to export enterprises, by means of reimbursements, financial subsidies or increased domestic prices, depending on the type of exchange, so as to compensate the profitabil-

ity equation of these firms (INDEC-ECLAC, 1987, especially section 6). The use of each of these mechanisms will certainly encounter fiscal restrictions; similarly, the possible gain in foreign currency will have a social cost. On the other hand, it must be borne in mind that several of the groups which in some years made decisive contributions to foreign sales are now imposing serious limitations, either because of changes in international demand or because of the erratic nature of domestic supply. This is the case of the meat-packing and sugar industries, various metalmechanical branches, etc.

The foregoing reflections sound a note of caution with respect to the validity of those hypotheses which formulate the hierarchy for the application of trade-promotion mechanisms dissociated from the obvious changes that have taken place in the conditions of production supply.

Such changes make it evident that we must determine those activities in which the country is capable of achieving a sustained increase in its export flow. The definition of a new industrial profile and the design of a sectoral policy which will channel private investment in that direction constitute the framework in which the promotion of exports can generate the conditions necessary for overcoming current inadequacies.

Giving due regard to the current budget restrictions, the choice of those activities in which it would be feasible to gain advantages and allocate resources more efficiently, redefining the country's position in the world trade in manufactured goods, constitutes one of the greatest challenges to Argentine society today.

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