



Ministry of State Ministère d'État

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CANADIAN INTERNATIONAL TRADE
CANADA'S SHARE OF WORLD TRADE

Janice Haritos

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CANADIAN INTERNATIONAL TRADE
CANADA'S SHARE OF WORLD TRADE

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Policy Research Group
Industry Projects Division
Industry Branch
Ministry of State for Science & Technology
September 21, 1977



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PART ONE

AN ANALYSIS OF CANADIAN INTERNATIONAL TRADE

A. AGGREGATE TRADE

1. Openness of the Canadian Economy

Canada has become more dependent on imports (and exports) in the sense that the Canadian economy has become increasingly open. In the last fifteen years the Canadian trade sector has increased at a faster rate than Canadian production.

Tables 1 and 2 outline the increasingly greater importance of the foreign trade sector in the Canadian economy. Over the 1961-1971 period total Canadian exports increased at a 12.4 percent average annual rate. Canadian imports increased at 12.1 percent while Canadian production increased at 10.5 percent annually. In volume terms, total exports grew at 7.1 percent annually, imports grew at 7.3 percent, while the domestic volume of production increased at a 5.1 percent average annual rate. Accordingly, total imports increased their share of Gross National Expenditure from 21.4 percent in the 1960-1965 period to 25.7 percent in the 1971-1976 period, while exports increased their share from 19.6 percent to 24.4 percent. Imports and exports increased from approximately 33 percent to 50 percent of the Canadian domestic production of goods in the period 1961-1976. Similar data, portraying the growth of the merchandise trade sector, are presented in Tables 3 and 4, and Charts I and II.

With its comparatively small population and geographically scattered domestic markets, the Canadian economy has benefited significantly from its greater degree of participation in international trade. On the other hand, the Canadian economy has become much more vulnerable to changes in conditions in the external economic environment.

2. Analysis of the Current Account of the Canadian Balance of Payments

As Tables 1 and 3 show, although imports and exports grew at approximately the same rate over the entire 1960-1976 period, import growth has exceeded export growth in the 1970's, reversing the superior export growth performance of the 1960's. Exports grew at an average annual rate of 15.4 percent while imports grew at 17.9 percent annually in the 1971-1976 period. In volume terms, imports grew at more than double the rate of exports for this period.

Table 5 shows the history of the balance of payments since 1961. The balance of service transactions has deteriorated steadily over the time period shown. The merchandise trade balance was positive on an annual basis from 1961-1974. However, since 1970 the merchandise trade balance has shown a deteriorating trend and, in 1975, there was a deficit of over \$500 million on the merchandise account. The net result has been a large deficits of \$4.8 and \$4.2 billion on the overall balance of payments for 1975 and 1976 respectively. For the first half of 1977, the deficit increased again to \$4.8 billion, seasonally adjusted at annual rates, despite a surplus on the merchandise account of \$2.3 billion seasonally adjusted at annual rates.

The overall deficit on current account in 1976 was about 2.2 percent of GNP which, excluding 1975, was higher than any year since 1961, yet was much lower than in the period 1955-1959 when the current account deficit averaged 3.7 percent of GNP. Although the bulk of the deficit in 1975 and 1976 was caused by the world recession of 1975, which caused a decline in the volume of Canadian exports at the same time as the milder recession in Canada kept imports rising, there is evidence that several structural problems are emerging in the country's international payments in the following areas:

- (i) the growing deficit on the services account, particularly in the travel sector and in interest liabilities;

- (ii) Canada's increasing dependence on imported oil;
- (iii) a worsening trade deficit in end products which exceeded \$10 billion in 1976.

B. TRADE IN MANUFACTURES AND NON-MANUFACTURES

Table 6 shows data on Canada's merchandise trade balances for non-manufactures and manufactures for the years 1971-1976, and a projection for 1977 based on data for the first seven months of 1977. The trade surplus in non-manufactures appears to have levelled off since 1974, partly as a result of the turnaround in the trade balance in crude petroleum from a surplus of \$0.8 billion in 1974 to a deficit of \$1.0 billion in 1976.

The trade surplus in "fabricated" manufactures increased from \$2.7 billion in 1971 to \$5.9 billion in 1976, while the deficit in "end products" manufactures increased from \$3.6 billion to \$10.3 billion over the same period. The net result was an increase in the trade deficit for total manufactures from \$1.0 billion in 1971 to \$6.3 and \$4.3 billion in 1975 and 1976.

Table 7 compares the annual rates of growth of exports, imports and domestic production of manufactured goods for the period 1963-1976 and sub-periods. Trade in manufactured goods grew at approximately double the rate of domestic production in the 1960's but slowed down considerably relative to production in the 1970's. In the 1963-1971 period, exports of manufactures increased faster than imports of manufactures; in the 1972-1976 period, manufactured imports grew faster than exports. As Table 8 shows, imports of manufactures as a percentage of domestic production of manufactures increased from 51.5 percent in the 1963-1967 period to 77.4 percent in the 1971-1975 period; exports increased from 41.6 percent to 65.3 percent for the corresponding periods. Charts III and IV illustrate the fact that manufactured exports gained relative to manufactured imports as a percentage of domestic production of manufactures in the 1965-1970 period and that a reversal of this trend occurred in the post-1970 period.

Chart V displays another indicator of "import penetration" of the Canadian manufacturing sector by measuring imports minus exports of manufactures expressed as a ratio of domestic production of manufactures. This indicator suggests decreasing "import penetration" of the Canadian manufacturing sector for the 1965-1970 period and increasing "import penetration" in the post-1970 period to a level exceeding that of the early 1960's.

C. FURTHER DISAGGREGATION OF TRADE IN MANUFACTURES AND NON-MANUFACTURES

Table 9 and Chart VI show the balance of trade for the 1964-1976 period and a forecast for 1977 for manufactures disaggregated as follows:

- (i) standard technology fabricated products,
- (ii) standard technology end products excluding motor vehicles and parts;
- (iii) technology-intensive products,
- (iv) motor vehicles and parts;

and for non-manufactures disaggregated as follows:

- (i) agricultural products,
- (ii) crude materials excluding petroleum and natural gas,
- (iii) crude petroleum, and
- (iv) natural gas.

- The surplus on standard technology fabricated products has increased over the period shown, with a substantial increase having occurred in 1976 and forecast again for 1977.
- The deficit on trade in standard technology end products, excluding motor vehicles, has increased steadily since 1971 with a particularly rapid increase since 1973.

- The trade balance on motor vehicles and parts improved during the late 1960's, attained a surplus in 1970 and 1971, and then went increasingly into deficit in the 1972 to 1975 period. Although the trade balance in autos and parts improved in 1976, the further improvement expected in 1977 over 1976 has not yet materialized.

- The trade deficit in technology-intensive* products widened in the 1972-1974 period, levelling off in 1975 and 1976 at \$2.6 billion. The outlook for this sector appears weak for 1977.

Table 10 compares the annual growth rates of merchandise exports and imports for each of these commodity groupings for the 1964-1976 period and sub-periods. In the 1972-1976 period, imports grew faster than exports for agricultural products, for crude materials excluding petroleum, for crude petroleum, for motor vehicles and parts and for technology-intensive products, while exports grew at a faster rate than imports for standard technology fabricated materials and end products.

Chart VII depicts measures of Canada's specialization in the above commodity groupings. The measure of specialization is the trade balance divided by total trade $(X-M/X+M)$ for each commodity grouping. The result is a dimensionless number between -1 (complete import specialization with no exports) and +1 (complete export specialization with no imports). A movement of the measure away from zero indicates an increase in specialization in trade while a movement towards zero indicates a decrease in the relative trade imbalance

*The definition of technology-intensive product used was that developed at the United States Department of Commerce (known as DOC-2) and applied to Canadian trade data by the Policy Research Group of the Industry Projects Division.

Chart VIII provides indicators of import penetration for three commodity groupings for which approximately comparable data on trade and domestic output are more readily available: machinery, textiles and transportation equipment.

- A high degree of import penetration exists in machinery relative to other manufactures. This import penetration declined in the 1960's but has increased in the 1970's although not quite to the pre-1965 level.
- A relatively high degree of import penetration relative to other manufactures exists in textiles. There has been a steady but modest increase in import penetration in textiles over the 1963-1976 period.
- The degree of import penetration in transportation equipment declined in the 1960's and increased in the 1970's. (This category is dominated by motor vehicles and parts.)

Charts IX, X and XI present some interesting information on imports of commodities by end use as a proportion of domestic consumption of those commodities.

- Imports of consumer goods (excluding motor vehicles and food) have increased from 6.75 percent of domestic consumption of consumer goods (excluding motor vehicles and food) in 1963 to over 12 percent in 1976. Imports of clothing have increased from slightly over 3 percent to over 12 percent of domestic consumption of clothing in the 1963-1976 period.

- Imports of producers' equipment have increased from approximately 21 percent to 24 percent of gross fixed non-residential capital formation over the 1963-1976 period.

D. TECHNOLOGY-INTENSIVE TRADE

Charts XII to XVI depict trade balances* in 24 categories of technology-intensive products within five major categories: Chemicals, Aircraft, Machinery, Electrical Products and Scientific and Professional Equipment. Canada's strongest areas in technology-intensive trade are: inorganic chemicals, aircraft engines and parts, commercial and industrial communications equipment and navigation equipment. The weakest areas are: synthetic rubber and plastics, complete aircraft, computers, televisions, radios and phonographs, electronic and related equipment, photographic equipment and measuring, controlling and laboratory equipment

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*Work is presently in progress within the Policy Research Group to develop indicators of "import penetration" for 31 categories of technology-intensive commodities, and to determine trends in Canada's share of world trade in each of these categories.

E) A SUMMARY CHART OF
THE ANALYSIS OF CANADA'S
INTERNATIONAL TRADE

AGGREGATE TRADE

1. Canada's economy has become more open since 1960's; exports and imports have increased from 18 and 21 percent respectively of GNE in 1960 to 24 and 26 percent respectively in 1976.
2. Canada has experienced large current account deficits in recent years: \$4.8 billion in 1975, \$4.2 billion in 1976 and \$4.8 billion, seasonally adjusted annual rates, for the first half of 1977. These deficits as a percentage of GNP are the largest since 1961.
3. The reasons for these deficits are due to both cyclical and fundamental structural causes. The 1975-76 deficits were largely a result of the 1974-75 world recession which was steeper than that which occurred in Canada. Structural problems that are evident in Canada's balance of payments are (i) the service deficit, (ii) oil, (iii) the deficit on "end product" manufactures.

MERCHANDISE TRADE

1. The merchandise trade balance has been positive since 1961 except for 1975.
2. The merchandise trade balance deteriorated from a surplus of \$3.0 billion in 1970 to a \$5.5 billion deficit in 1975; it registered a surplus of \$1.1 billion in 1976 and the outlook is for a surplus between \$2 and \$3 billion in 1977.
3. The major problem is that the merchandise trade surplus is not growing fast enough to cover the deficits on the service account. In fact, in the 1970's merchandise imports have been growing more rapidly than merchandise exports.

SERVICE TRADE

1. The service deficit has been negative over the last 25 years.
2. The service deficit increased rapidly in the 1970's; was \$5.8 billion in 1976 and may exceed \$7 billion in 1977.
3. The major problem areas are travel and interest liabilities.

NON-MANUFACTURES

1. The surplus on non-manufactures has declined since 1973.
2. A major problem is the increasing dependence on oil imports. The trade surplus of \$0.8 billion on crude petroleum turned to a deficit of \$1.0 billion in 1976.
3. The growth rates of imports of agricultural products and crude materials, excluding petroleum have exceeded growth rates of exports for both those categories in the 1972-76 period.
4. The deficit on imports of food products such as fruits and vegetables, sugar, coffee, etc. now exceeds \$1 billion. Exports of wheat and grains are sluggish.

MANUFACTURES

1. Canada's trade in manufactures has expanded rapidly relative to domestic production of manufactures. Exports increased from 36% to 69% of GDP in manufacturing over the 1963-76 period; imports increased from 44% to 81% of GDP in manufacturing over the same period.
2. Canada's overall trade in manufactures (includes "fabricated" and "end") increased from \$1.0 billion in 1971 to \$6.3 billion in 1975, declined to \$4.3 billion in 1976 and will probably decline to near \$3 billion in 1977. The surplus on "fabricated materials" has increased steadily from 1971-76 while the deficit on "end products" has increased rapidly over this period from \$3.6 billion in 1971 to \$10.3 billion in 1976.
3. Even if growth rates for imports and exports of manufactures were the same, the absolute trade deficit would increase. However in 1972-76 imports of manufactures have been growing faster than exports.
4. An indicator of "import penetration" in manufactures was constructed by subtracting exports from imports and expressing the result as a ratio of domestic production. The resulting indicator suggested a high level of import penetration for manufactures in the last 3 years.

MANUFACTURES END USE CLASSIFICATION

1. Imported consumer goods (excluding food & motor vehicles increased from about 6% of consumer expenditures (excluding food, motor vehicles and services) in 1963 to over 12% in 1976. Imported clothing increased from 3% to 12%.
2. Imported producers' equipment increased from about 21% to 24% of non-residential investment in the same period.
3. It suggests that there has been a higher than average rate of import penetration in the area of consumer goods than for the economy as a whole and a lower than average rate for producers' goods.

STANDARD TECHNOLOGY MANUFACTURES

1. Over the 1964-76 period exports of standard technology fabricated materials and standard technology end products (excluding motor vehicles and parts) have grown more rapidly than imports of both these categories. However, the superior growth rates of exports of standard technology end products (excluding motor vehicles and parts) have not been sufficient to prevent the absolute trade deficit in these products from widening considerably.
2. After greatly superior growth rates in exports over imports of motor vehicles and parts in the late 1960's (following the Auto Pact) which resulted in a surplus in 1970 and 1971, the trend reversed in the 1972-76 period and a substantial deficit has reappeared in motor vehicles and parts.
3. Trade specialization ratios were calculated which showed a slight trend towards decreased import specialization in standard technology end products (excluding motor vehicles and part) and a relatively level trend in trade specialization in standard technology fabricated materials.
4. "Import penetration" indicators were constructed for machinery and textiles. Import penetration appears to be decreasing in machinery and increasing in textiles.

TECHNOLOGY-INTENSIVE MANUFACTURES

1. The trade deficit in technology-intensive products widened in 1972-74 and then levelled off in 1975 and 1976 at around \$2.6 billion.
2. Although it has not been possible to calculate measures of import penetration at this stage, trade balances in technology-intensive goods disaggregated by 24 categories suggest that Canada is increasingly less competitive in the following commodities: synthetic rubber and plastics, computers, television radios and phonographs, electronic and related equipment, measuring, controlling and laboratory equipment, and photographic equipment.

TABLE 1

A COMPARISON OF ANNUAL GROWTH RATES OF
TOTAL IMPORTS, EXPORTS AND GROSS NATIONAL EXPENDITURE, 1960-1976

<u>CURRENT DOLLARS</u>	<u>1960-1976a</u>	<u>1960-1965a</u>	<u>1965-1970a</u>	<u>1971-1976a</u>
Imports	12.1	8.8	10.4	17.9
Exports	12.4	9.8	13.6	15.4
Gross National Expenditure	10.5	7.6	9.1	15.0

CONSTANT DOLLARS

Imports	7.3	6.4	7.8	7.9
Exports	7.1	7.7	11.0	3.3
Gross National Expenditure	5.1	5.6	4.8	4.6
Domestic Production of Goods	4.8	6.4	4.2	3.3

Percentage changes are computed from the least squares trend of the logarithms of the actual data.

SOURCE: Statistics Canada

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TABLE 2

TOTAL IMPORTS AND EXPORTS AS A PROPORTION OF GROSS NATIONAL
EXPENDITURE

	<u>1960-1965 (a)</u>	<u>1965-1970 (a)</u>	<u>1971-1976 (a)</u>
<u>CURRENT DOLLARS</u>			
Imports as % of GNE	21.4	23.4	25.7
Exports as % of GNE	19.6	22.4	24.4

<u>CONSTANT DOLLARS</u>			
Imports as % of GNE	19.1	22.2	25.7
Exports as % of GNE	17.3	21.0	22.9

a) Average share for the period indicated.

SOURCE: Statistics Canada: National Income and Expenditure Accounts

TABLE 3

A COMPARISON OF ANNUAL GROWTH RATES OF
MERCHANDISE IMPORTS, EXPORTS AND GROSS NATIONAL EXPENDITURE, 1960-1976

<u>CURRENT DOLLARS</u>	<u>1960-1976^a</u>	<u>1960-1965^a</u>	<u>1965-1970^a</u>	<u>1971-1976^a</u>
Imports	12.6	9.3	10.0	19.2
Exports	13.0	10.2	14.1	16.3
Gross National Expenditure	10.5	7.6	9.1	15.0

CONSTANT DOLLARS

Imports	8.0	7.1	10.1	8.9
Exports	7.9	8.3	12.1	3.7
Gross National Expenditure	5.1	5.6	4.8	4.6
Domestic Production of Goods	4.8	6.4	4.2	3.3

a. Percentage changes are computed from the least squares trend of the logarithms of the actual data.

SOURCE: Statistics Canada

TABLE 4

MERCHANDISE IMPORTS AND EXPORTS AS A PROPORTION OF GROSS NATIONAL EXPENDITURE

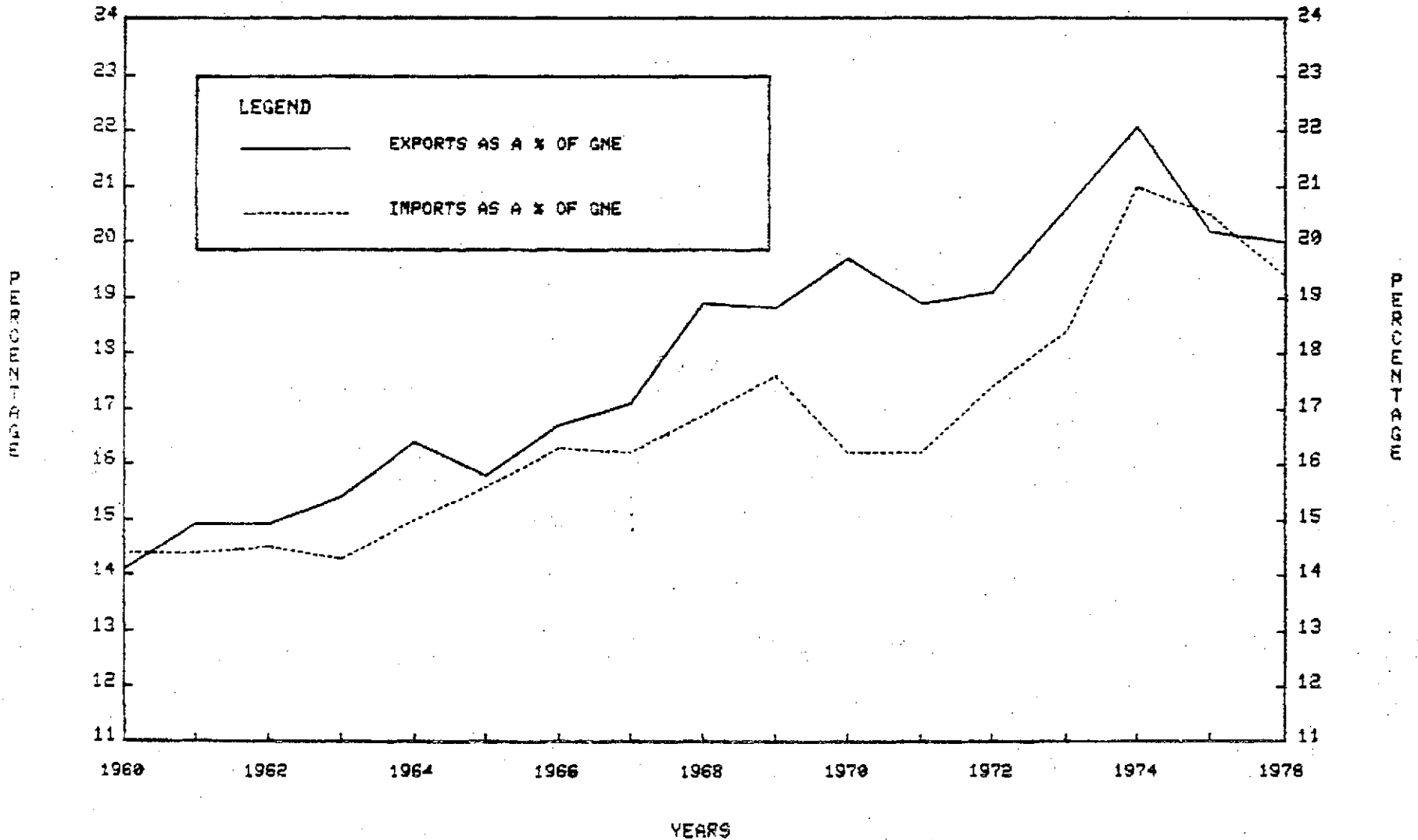
	<u>1960-1965¹</u>	<u>1965-1970¹</u>	<u>1971-1976¹</u>
<u>CURRENT DOLLARS</u>			
Imports as percent of GNE	14.7	16.5	18.8
Exports as percent of GNE	15.2	17.8	20.2
<u>CONSTANT DOLLARS</u>			
Imports as percent of GNE	12.6	15.3	18.7
Exports as percent of GNE	12.9	16.3	18.7

1. Average share for the period indicated.

SOURCE: Statistics Canada: National Income and Expenditure Accounts

CHART I

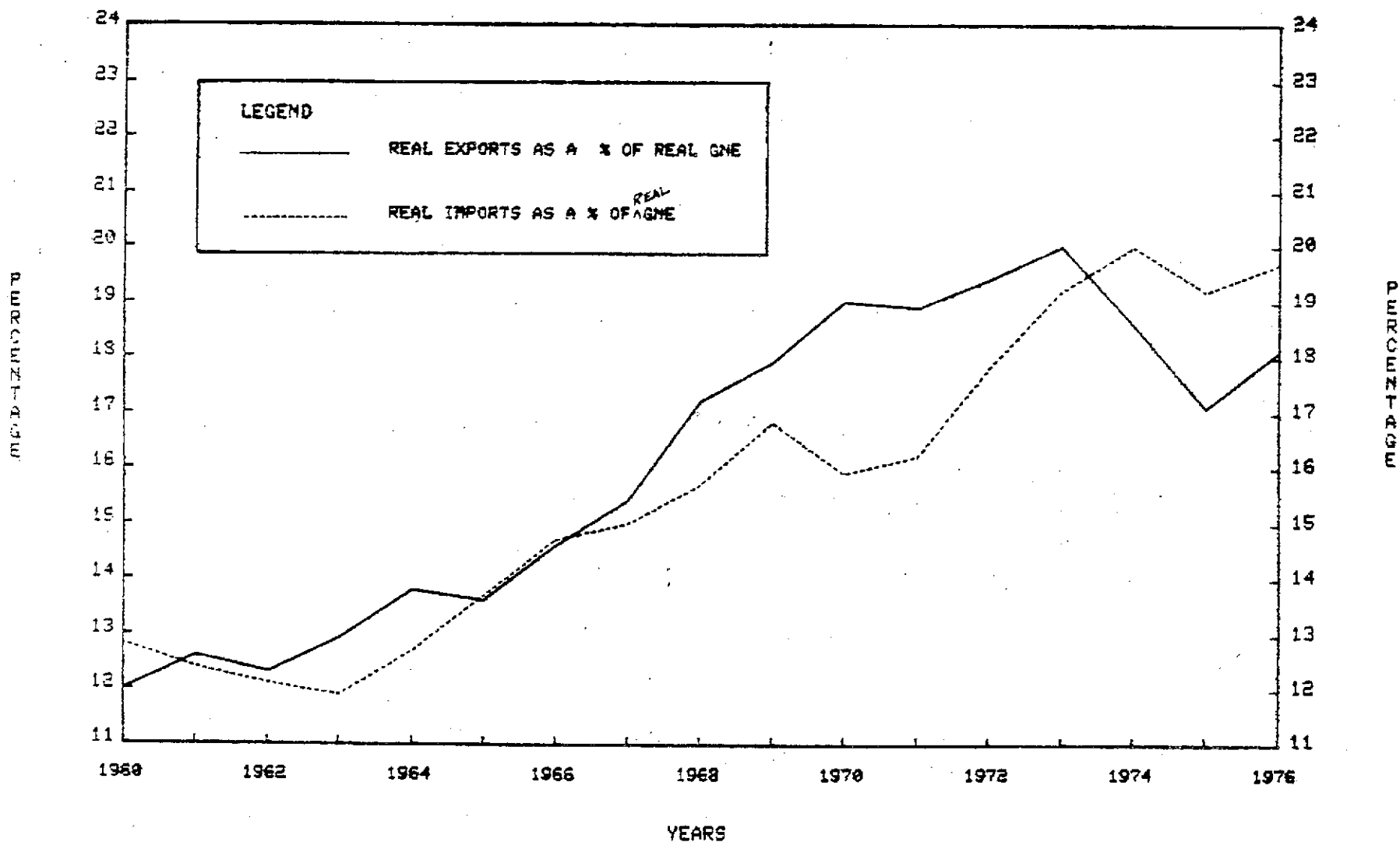
MERCHANDISE EXPORTS AND IMPORTS AS A PROPORTION OF GNE
(current \$)



SOURCE : STATISTICS CANADA

CHART II

MERCHANDISE EXPORTS AND IMPORTS AS A PROPORTION OF GNE
(Constant \$)



SOURCE : STATISTICS CANADA

TABLE 5

1961-1976
AN OVERVIEW OF THE CANADIAN
BALANCE OF PAYMENTS
(\$Million)

CURRENT ACCOUNT RECEIPTS								
	1961	1962	1963	1964	1965	1966	1967	1968
MERCHANDISE EXPORTS	5,889	6,387	7,882	8,238	8,745	10,326	11,338	13,720
SERVICE RECEIPTS	1,735	1,847	1,986	2,265	2,437	2,719	3,325	3,070
TRANSFER RECEIPTS	280	314	348	384	466	555	648	674
TOTAL RECEIPTS	7,904	8,548	9,416	10,887	11,648	13,600	15,303	17,464
	1969	1970	1971	1972	1973	1974	1975	1976
MERCHANDISE EXPORTS	15,035	16,921	17,877	20,129	25,461	32,591	33,428	37,975
SERVICE RECEIPTS	3,695	4,246	4,304	4,451	5,257	6,339	6,936	7,410
TRANSFER RECEIPTS	695	765	870	903	1,058	1,356	1,386	1,489
TOTAL RECEIPTS	19,425	21,932	23,051	25,483	31,776	40,286	41,750	46,874
CURRENT ACCOUNT PAYMENTS								
	1961	1962	1963	1964	1965	1966	1967	1968
MERCHANDISE IMPORTS	5,716	6,203	6,579	7,537	8,627	10,102	10,772	12,249
SERVICE PAYMENTS	2,764	2,842	2,982	3,376	3,714	4,157	4,462	4,822
TRANSFER PAYMENTS	352	333	376	398	437	503	568	490
TOTAL PAYMENTS	8,832	9,378	9,937	11,311	12,778	14,762	15,802	17,561
	1969	1970	1971	1972	1973	1974	1975	1976
MERCHANDISE IMPORTS	14,071	13,869	15,314	18,272	22,726	30,902	33,962	36,886
SERVICE PAYMENTS	5,719	6,345	6,702	6,978	8,228	10,104	11,571	13,208
TRANSFER PAYMENTS	552	612	604	619	714	793	996	967
TOTAL PAYMENTS	20,342	20,826	22,620	25,869	31,668	41,799	46,529	51,061
CURRENT ACCOUNT BALANCE OF PAYMENTS								
	1961	1962	1963	1964	1965	1966	1967	1968
MERCHANDISE	173	184	503	701	118	224	566	1,471
SERVICE	-1,029	-995	-996	-1,111	-1,277	-1,438	-1,137	-1,752
TRANSFERS	-72	-19	-28	-14	29	52	72	184
TOTAL BALANCE	-928	-830	-521	-424	-1,130	-1,162	-499	-97
TOTAL BALANCE/GNP	-2.34	-1.93	-1.13	-0.84	-2.84	-1.88	-0.75	-0.13
	1969	1970	1971	1972	1973	1974	1975	1976
MERCHANDISE	964	3,052	2,563	1,857	2,735	1,689	-534	1,089
SERVICE	-2,024	-2,099	-2,398	-2,527	-2,971	-3,765	-4,635	-5,798
TRANSFERS	143	153	266	284	344	563	390	522
TOTAL BALANCE	-917	1,106	431	-386	108	-1,513	-4,779	-4,187
TOTAL BALANCE/GNP	-1.15	1.29	0.46	-0.37	0.09	-1.03	-2.89	-2.20

SOURCE: Statistics Canada

TABLE 6

CANADIAN BALANCE OF MERCHANDISE TRADE IN NON-MANUFACTURES
AND MANUFACTURES 1971-77*
(\$Billion)

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977*</u>
NON-MANUFACTURES	2.9	3.0	4.2	5.1	4.3	4.6	n.a.
MANUFACTURES	-1.0	-1.8	-2.5	-4.9	-6.3	-4.3	-3.0
Fabricated	2.7	3.0	3.9	4.2	3.9	5.9	8.1
End	-3.6	-4.8	-6.4	-9.1	-10.2	-10.3	-11.1

* Forecast for 1977, MOSST Policy Research Group

SOURCE: Statistics Canada

TABLE 7

A COMPARISON OF
ANNUAL GROWTH RATES OF IMPORTS, EXPORTS & DOMESTIC PRODUCTION OF MANUFACTURES
(Percentage Changes of Current \$ Data)

	<u>1963-1976</u>	<u>1963-1967</u>	<u>1967-1971</u>	<u>1972-1976</u>
Imports of Manufactures	14.9	16.9	10.0	16.9
Exports of Manufactures	15.3	17.3	13.0	15.8
Gross Domestic Production in Manufacturing	9.3 (a)	8.0	6.7	13.2 (b)
Shipments of Manufactures	10.2	8.6	6.6	15.1

a) Growth rate for the 1963-1975 period; the 1976 data point is not available.

b) Growth rate for the 1971-1975 period.

SOURCE: Statistics Canada

TABLE 8

THE RATIO OF IMPORTS AND EXPORTS OF MANUFACTURES (a)
TO DOMESTIC OUTPUT OF CANADIAN MANUFACTURING INDUSTRIES

	<u>1963-1967</u> (b)	<u>1967-1971</u> (b)	<u>1971-1975</u> (b)
Imports of Manufactures as % of GDP in Manufac- turing	51.5	65.1	77.4
Exports of Manufactures as % of GDP in Manufac- turing	41.6	59.2	65.3

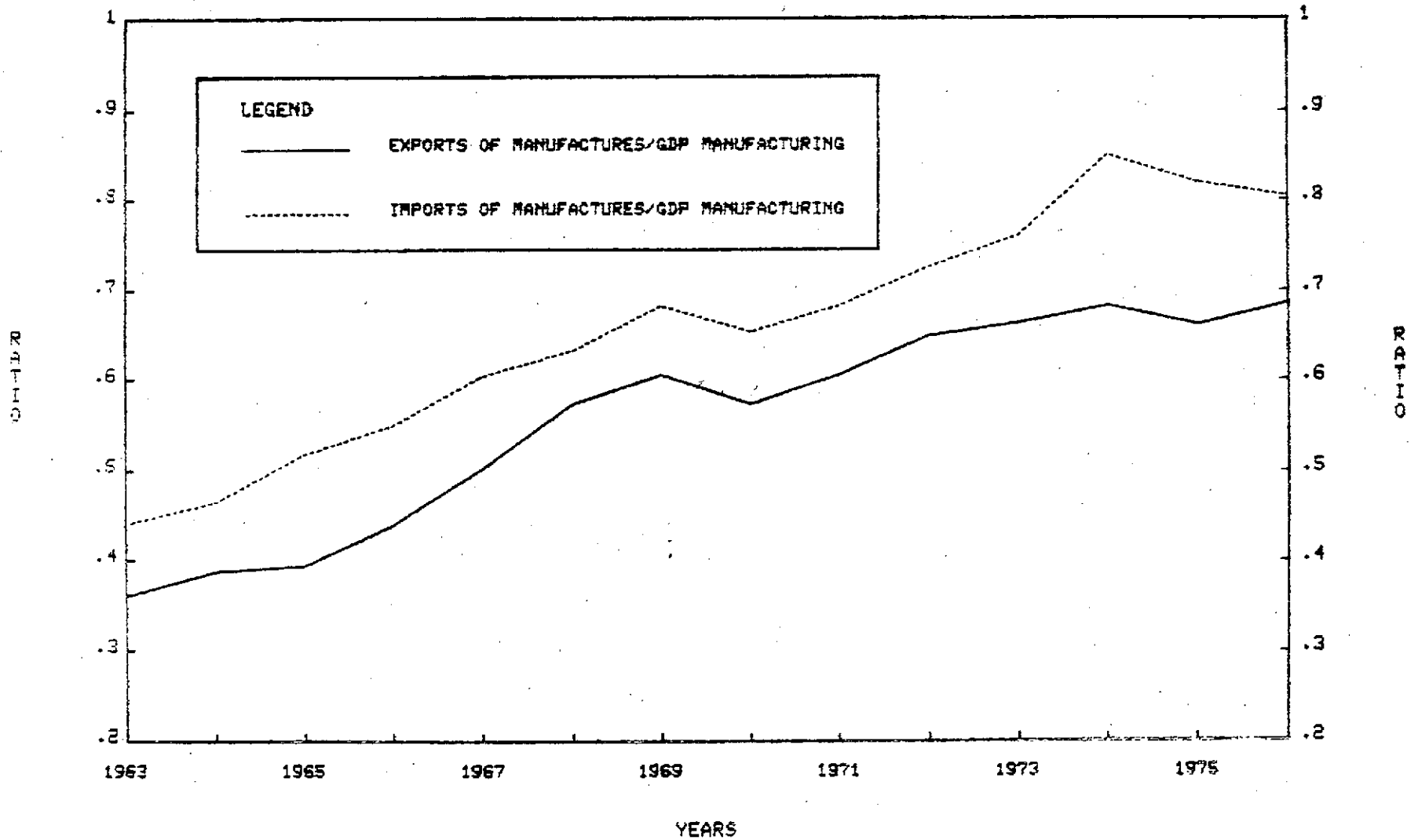
a) Manufactures are defined as all commodities included in the "fabricated products" and "end products" categories of the Canadian Standard Industrial Trade Classification. ;

b) Five-year average.

SOURCE: Statistics Canada

CHART III

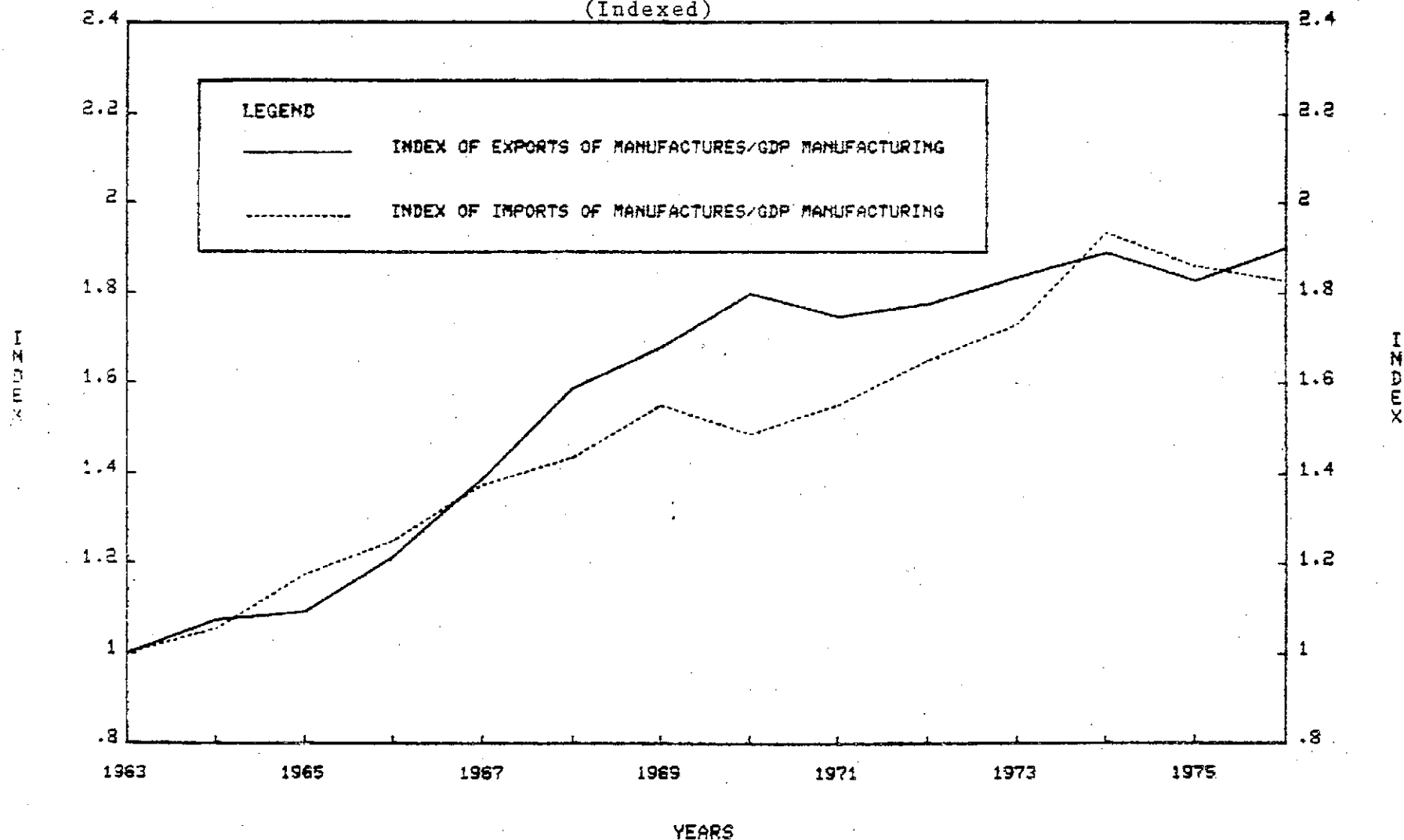
TRADE IN MANUFACTURES RELATIVE TO MANUFACTURING OUTPUT
(EXPORTS & IMPORTS AS A RATIO OF GDP IN MANUFACTURING)



SOURCE : STATISTICS CANADA

CHART IV

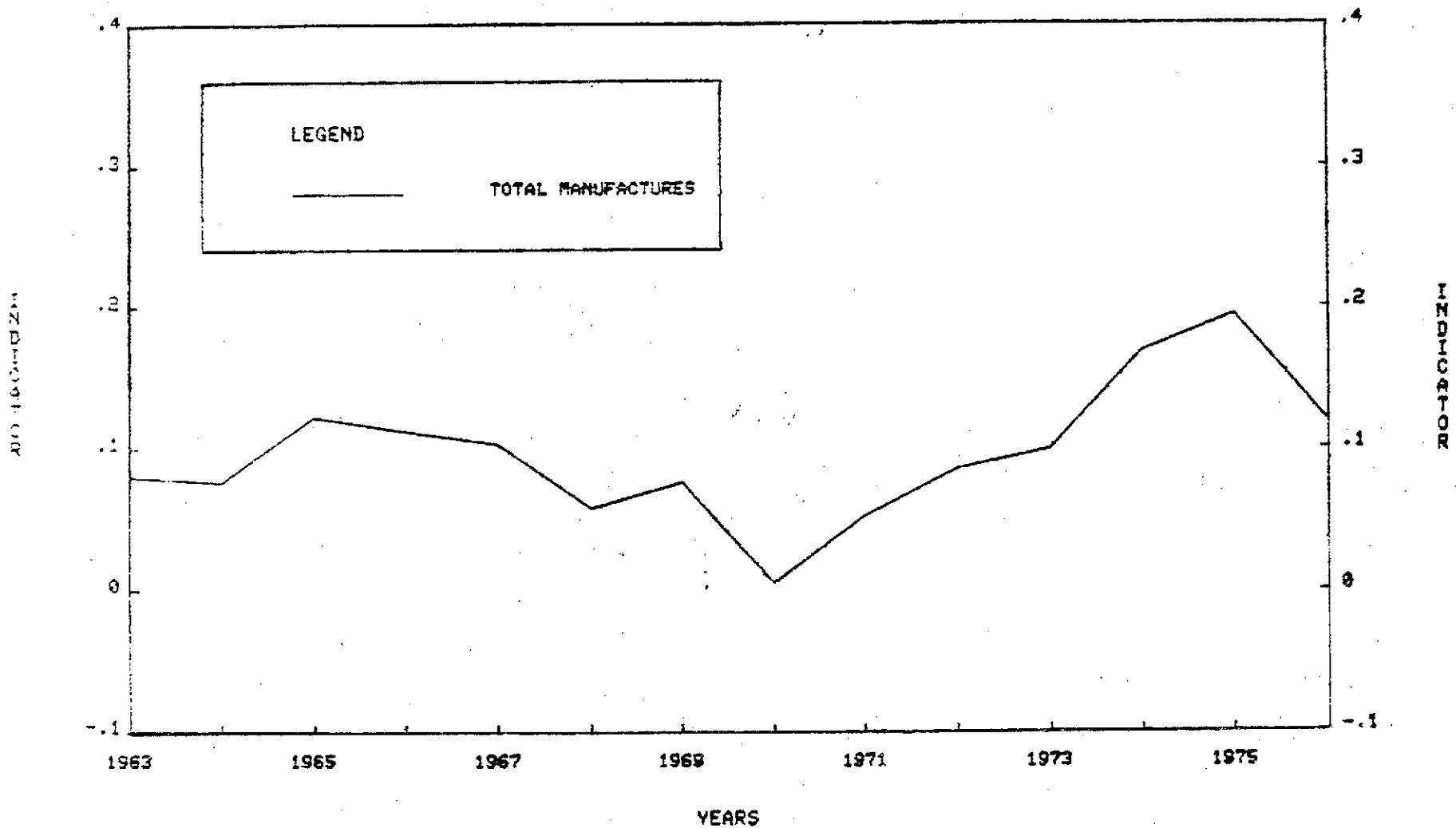
TRADE IN MANUFACTURES RELATIVE TO MANUFACTURING OUTPUT
(EXPORTS & IMPORTS AS A RATIO OF GDP IN MANUFACTURING)
(Indexed)



SOURCE : STATISTICS CANADA

CHART V

INDICATOR OF IMPORT PENETRATION IN CANADIAN MANUFACTURES (IMPORTS LESS EXPORTS DIVIDED BY DOMESTIC SHIPMENTS OF MANUFACTURES)



SOURCE: Statistics Canada and MOSST Policy Research Group

TABLE 9

BALANCE OF MERCHANDISE TRADE BY
9 COMMODITY GROUPINGS, 1964-1977

	1964	1965	1966	1967	1968	1969	1970
Non-manufactures	1,045,600	939,300	1,161,300	760,500	695,100	401,900	752,900
(AGRICULTURAL	621,724	609,612	802,313	691,553	1,120,851	1,084,656	1,490,024
(RAW MAT EX PET GAS	-58,500	-32,400	22,700	42,400	73,900	132,500	233,900
(CRUDE PETROLEUM	97,600	104,300	108,700	123,800	153,800	176,200	205,900
(NATURAL GAS	1,729,227	1,684,702	1,859,493	2,022,672	2,547,237	2,408,912	3,161,138
(STD TECH FABRICATED PROD	-1,646,269	-1,894,037	-2,095,909	-2,188,360	-2,205,305	-2,527,519	-2,443,700
Manufactures	-640,500	-768,900	-569,300	-429,300	-329,300	-31,800	247,100
(STD TECH END PROD EX MV	-350,482	-587,877	-770,797	-932,065	-950,083	-1,174,850	-1,067,862
(MOTOR VEHICLES AND PARTS	-192,200	-242,900	-296,000	-244,900	-221,200	-156,700	-130,300
(HIGH TECHNOLOGY PROD	Special transactions						
Total	815,500	133,500	477,100	345,500	1,247,100	740,700	2,868,100

	1971	1972	1973	1974	1975	1976	1977 (a)
Non-Manufactures	955,600	954,400	1,175,900	1,354,500	1,429,800	1,377,400	809,000
(AGRICULTURAL	1,464,041	1,415,046	2,151,933	2,489,102	2,070,453	2,594,788	3,253,015
(RAW MAT EX PET GAS	246,400	327,100	539,500	773,600	-250,400	-987,300	-1,123,000
(CRUDE PETROLEUM	250,700	306,700	350,800	453,700	1,092,300	1,616,600	2,026,000
(NATURAL GAS	2,795,691	3,173,432	4,148,894	4,609,062	4,238,894	6,180,114	8,533,679
(STD TECH FABRICATED PROD	-2,704,194	-3,412,225	-3,991,538	-5,440,184	-6,109,856	-6,767,377	-7,253,898
Manufactures	60,900	-215,900	-666,100	-1,407,600	-1,780,400	-1,168,500	-1,406,000
(STD TECH END PROD EX MV	-1,153,838	-1,306,653	-1,995,489	-2,708,600	-2,669,391	-2,610,825	-3,232,796
(MOTOR VEHICLES AND PARTS	-136,800	-160,400	-201,600	-210,200	-246,100	-375,500	-427,000
(HIGH TECHNOLOGY PROD	SPECIAL TRANSACTIONS						
TOTAL (b)	2,202,800	1,480,500	2,095,200	720,100	-1,445,400	677,400	2,074,000

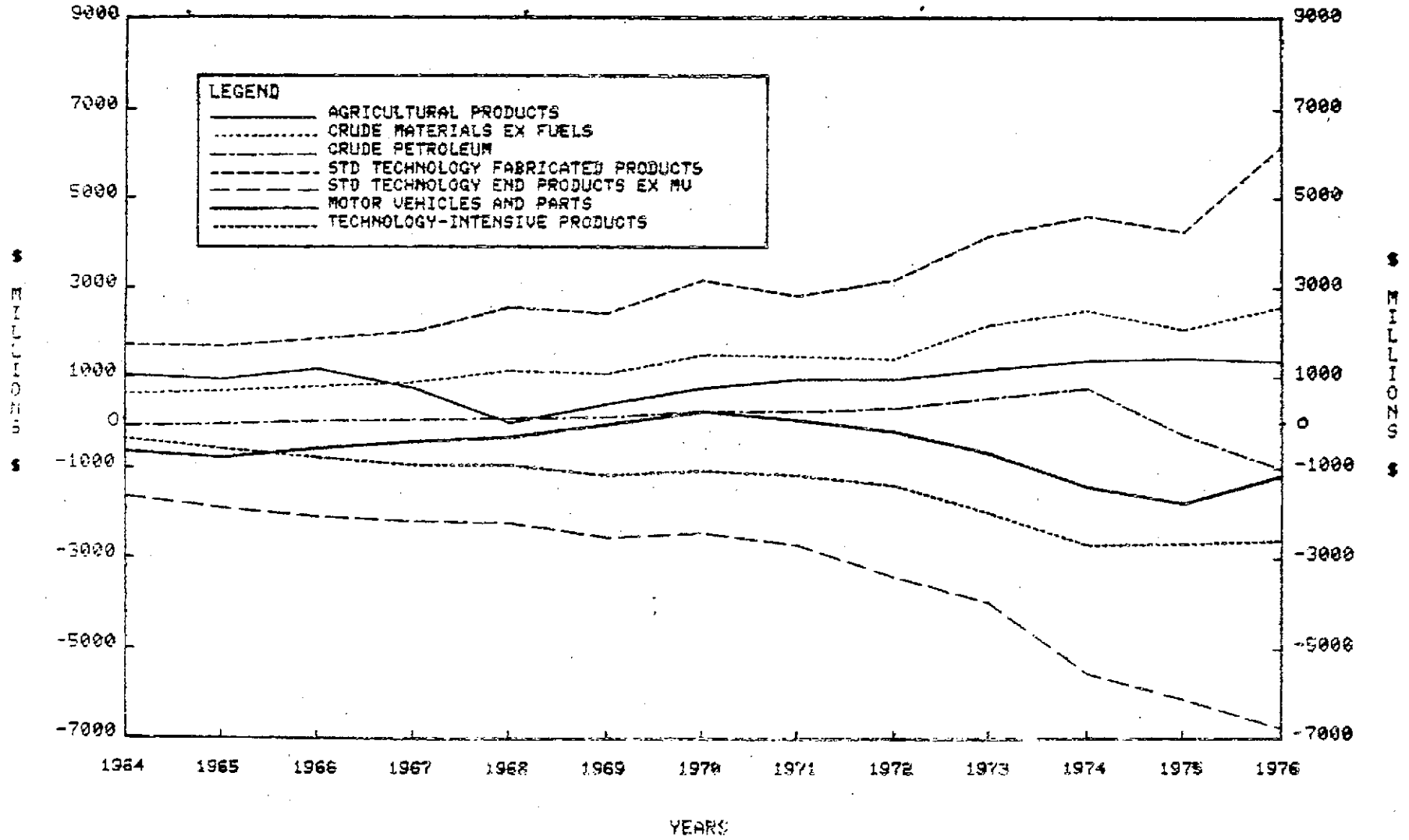
SOURCE: Statistics Canada and MOSST Policy Research Group

a) Forecasts for 1977, MOSST Policy Research Group

b) Total includes re-exports.

CHART VI

CANADIAN BALANCE OF MERCHANDISE TRADE BY COMMODITY, 1964 TO 1976
(MILLIONS OF DOLLARS)



SOURCE : STATISTICS CANADA AND MOSST, POLICY RESEARCH GROUP

TABLE 10

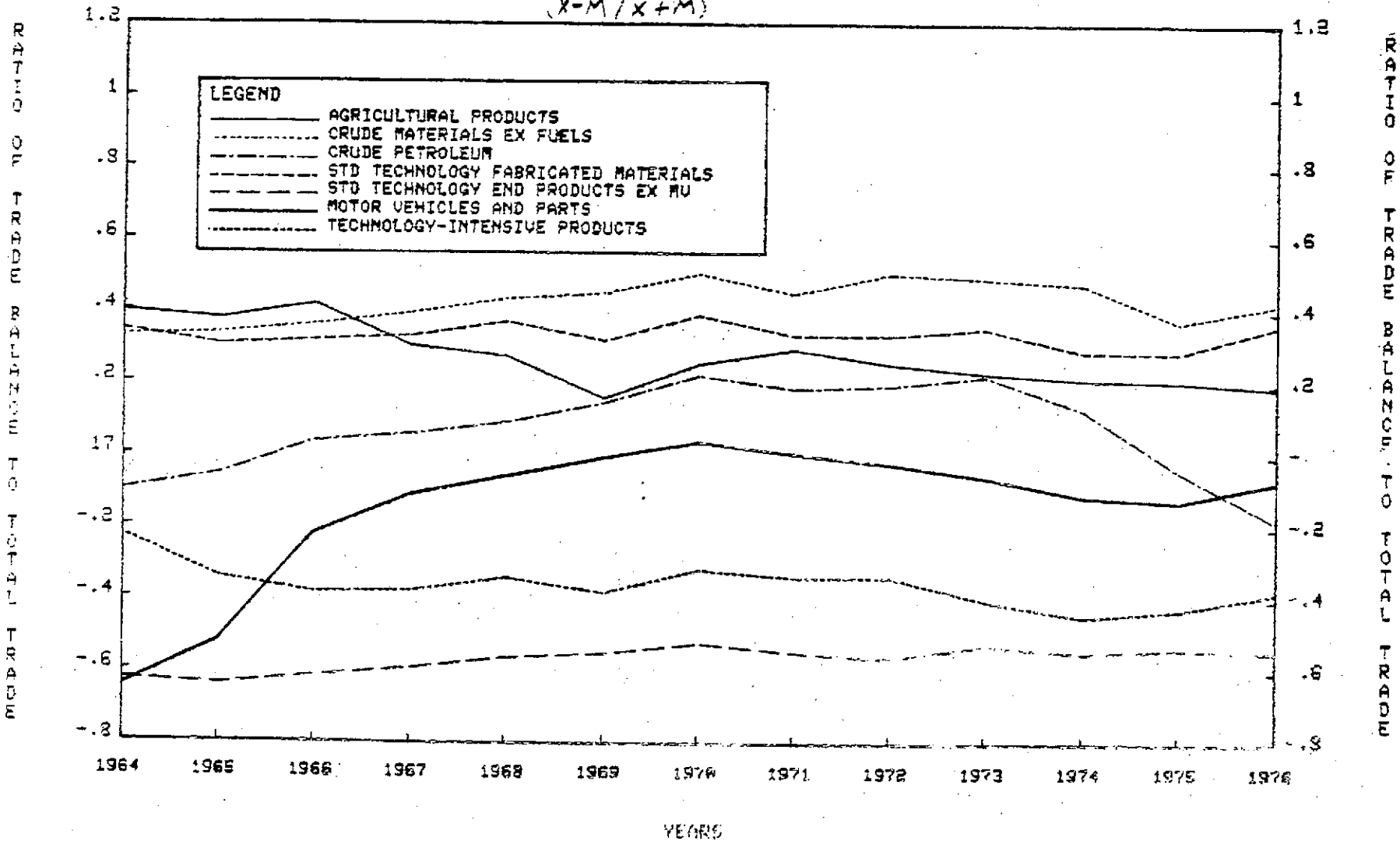
ANNUAL GROWTH RATES OF MERCHANDISE TRADE BY COMMODITY GROUPINGS
1964-1976 (a)

<u>COMMODITY GROUP</u>	<u>1964-1976</u>		<u>1964-1968</u>		<u>1968-1972</u>		<u>1972-1976</u>	
	<u>Imports</u>	<u>Exports</u>	<u>Imports</u>	<u>Exports</u>	<u>Imports</u>	<u>Exports</u>	<u>Imports</u>	<u>Exports</u>
Agricultural Products	11.3	7.2	3.7	- 3.2	11.1	9.9	19.7	15.9
Crude materials excluding fuels	8.9	10.9	3.9	10.5	2.9	4.7	20.8	18.0
Crude Petroleum	21.4	19.8	3.8	14.2	16.3	22.6	48.1	22.7
Natural Gas	-	26.3	-	12.0	-	18.8	-	51.5
Standard Technology fabricated products	10.5	10.9	7.4	8.9	10.0	7.7	14.3	16.2
Standard Technology end products less motor vehicles	13.3	15.7	9.3	14.6	11.6	11.7	19.3	21.0
Motor Vehicles	22.5	37.6	38.4	97.0	13.2	15.3	17.3	14.7
Technology-intensive products	14.4	11.2	18.5	11.3	10.1	10.2	14.8	12.2

(a) Data prior to 1963 are not available on the CANSIM system; the Standard International Trade Classification (SITC) was changed in 1963. 1963 Data are not presented here due to difficulties in separation of data for the technology-intensive category for that year.

SOURCE: Statistics Canada and MOSST Policy Research Group

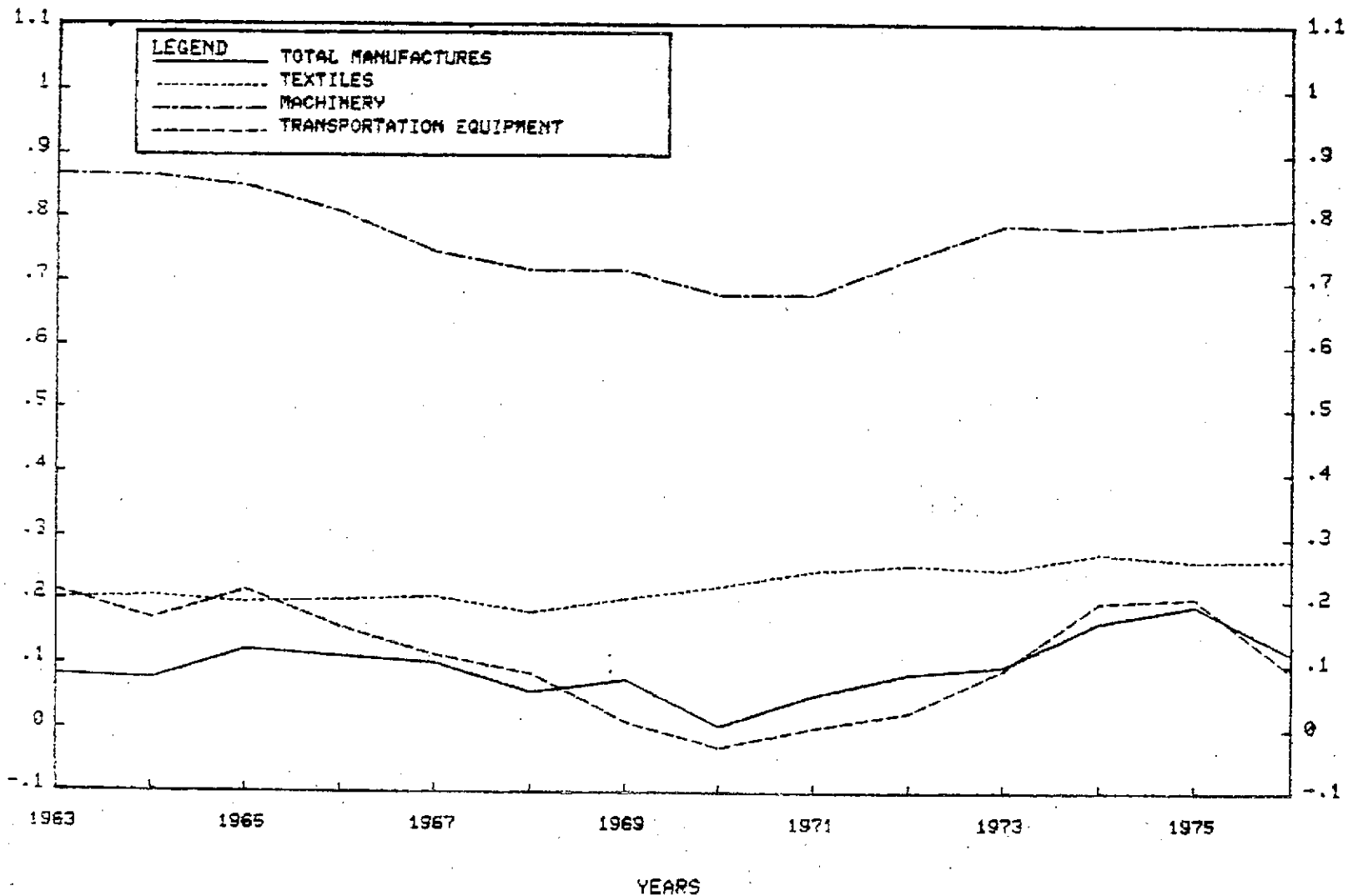
PATTERNS OF SPECIALIZATION IN CANADA'S TRADE
 (TRADE BALANCE NORMALIZED ON TOTAL TRADE)
 $(X-M / X+M)$



SOURCE : STATISTICS CANADA AND MOSSY POLICY RESEARCH GROUP

CHART VIII

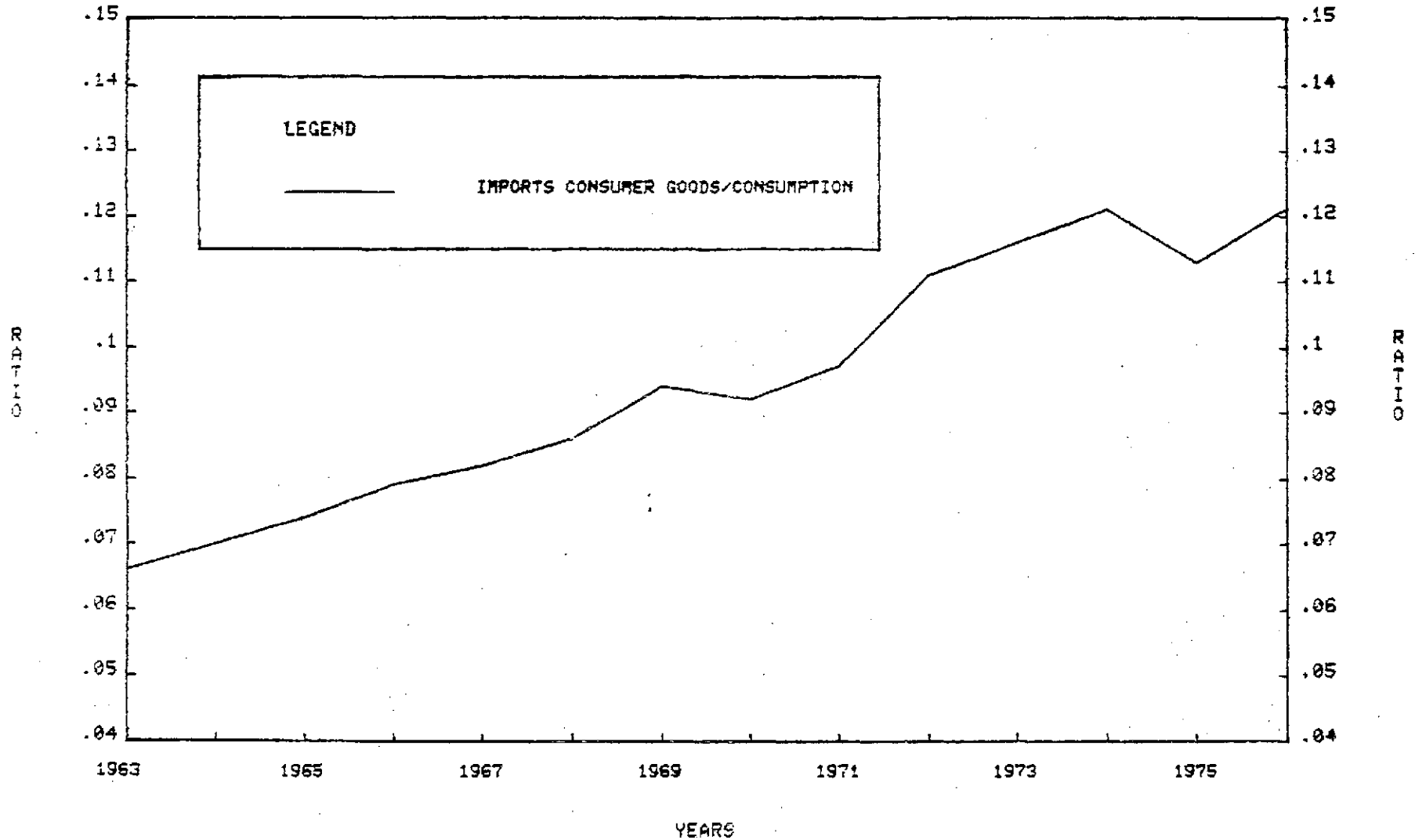
MEASURES OF IMPORT PENETRATION
(IMPORTS - EXPORTS / DOMESTIC SHIPMENTS)



SOURCE: Statistics Canada and MOSST Policy Research Group

CHART IX

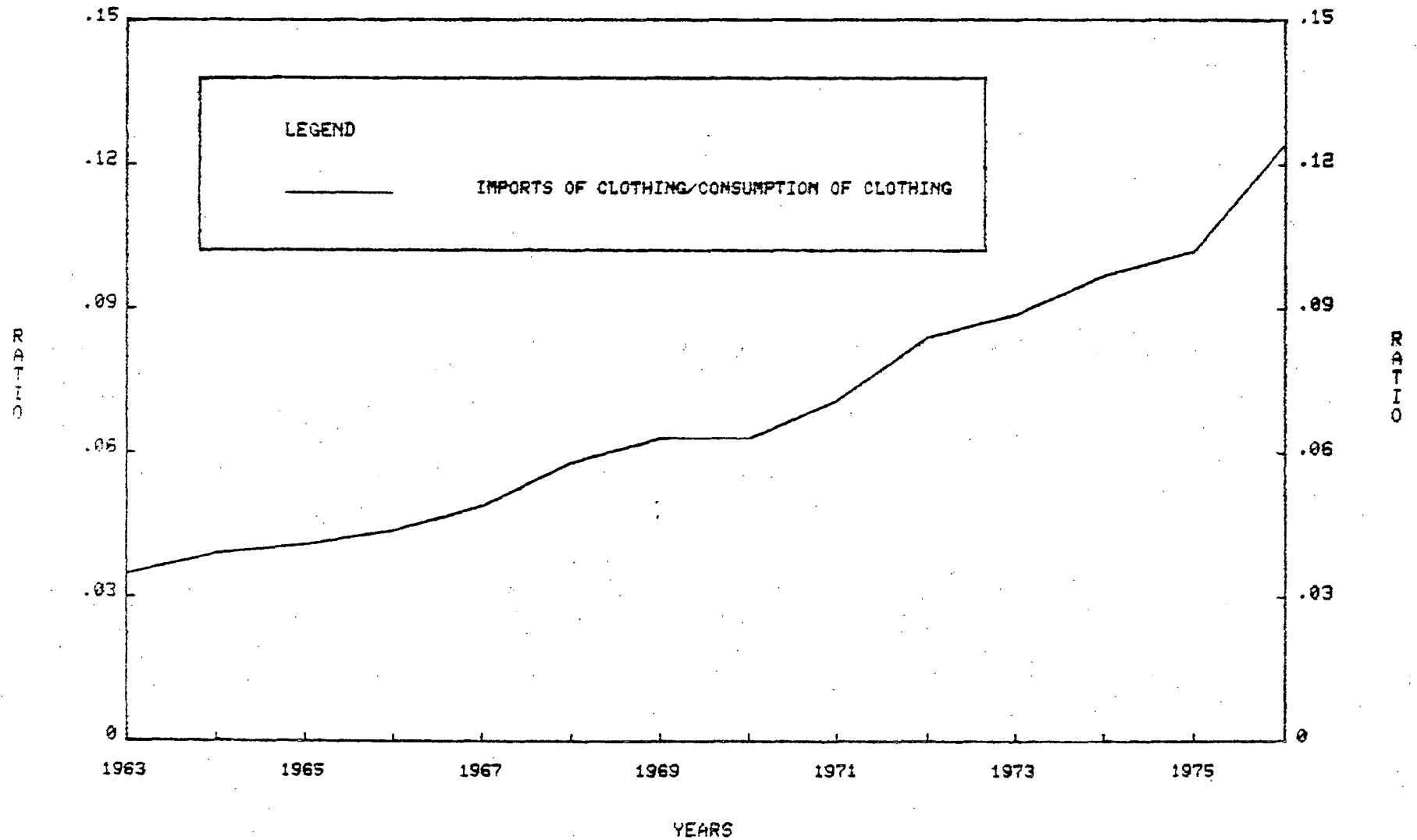
IMPORTS OF CONSUMER GOODS AS A RATIO OF CONSUMER EXPENDITURE
(FOOD AND MOTOR VEHICLES EXCLUDED)



SOURCE : STATISTICS CANADA AND BANK OF CANADA

CHART X

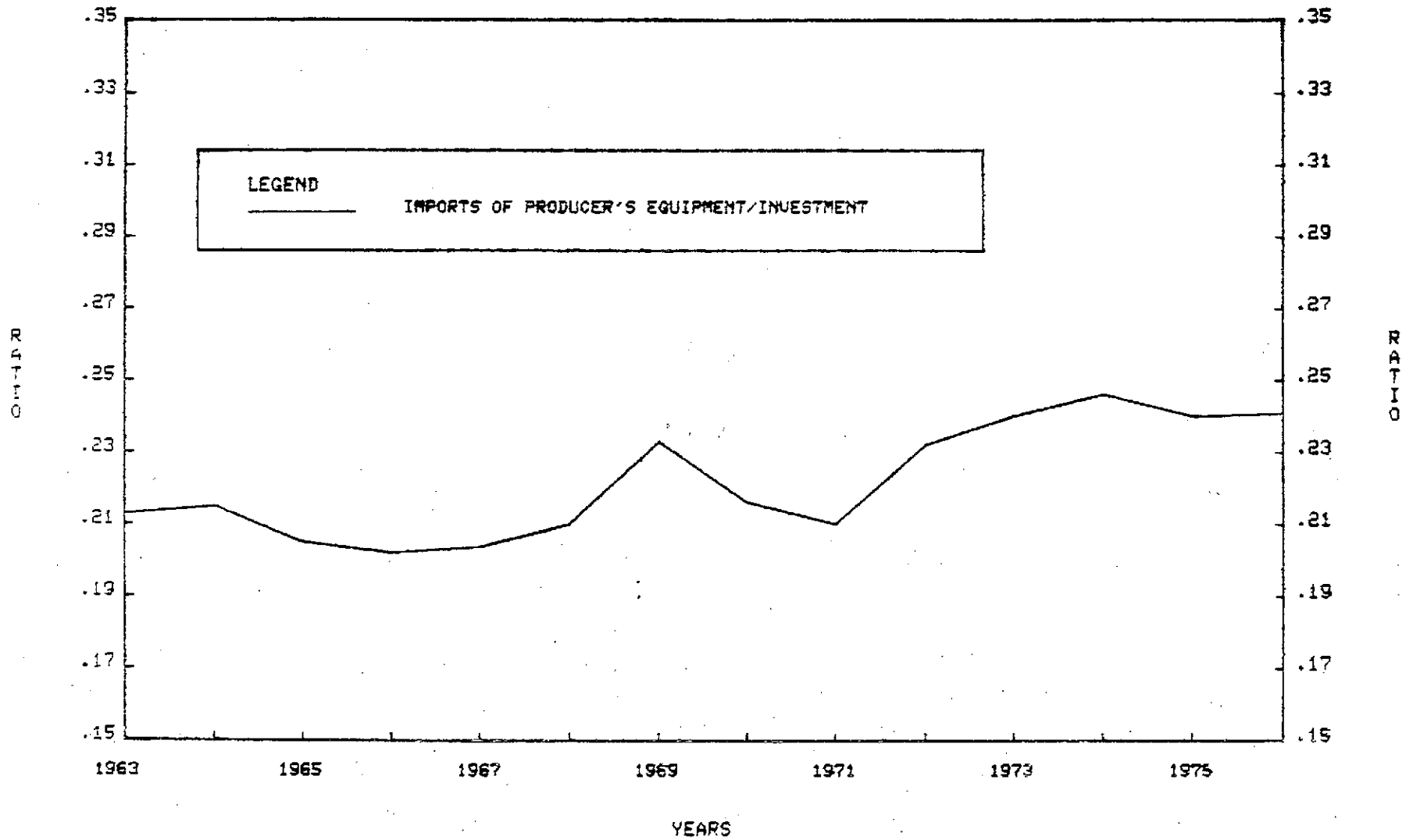
IMPORTS OF CLOTHING AS A PROPORTION OF CONSUMPTION OF CLOTHING



SOURCE : STATISTICS CANADA

CHART XI

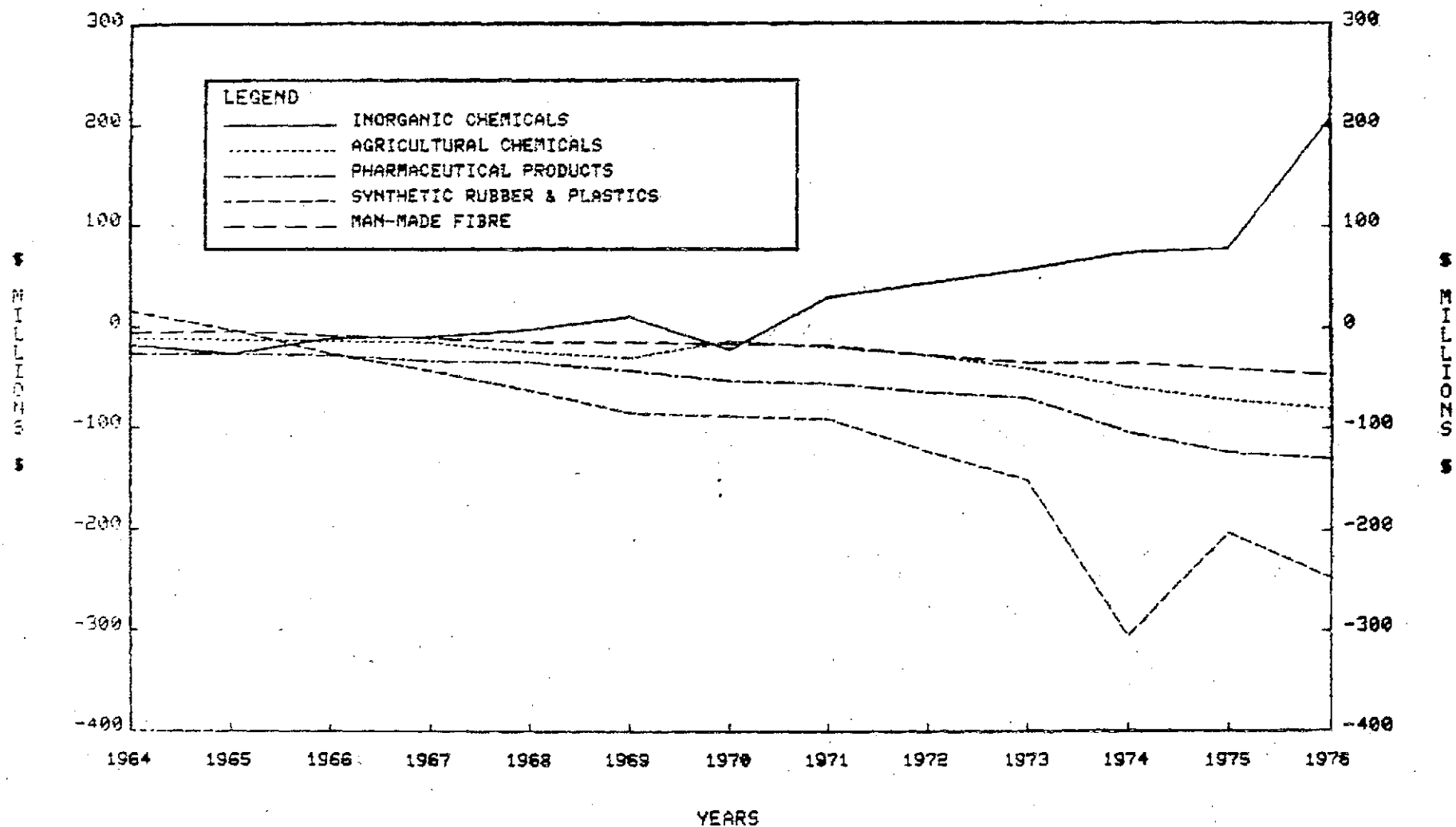
IMPORTS OF PRODUCER'S EQUIPMENT RELATIVE TO CAPITAL INVESTMENT



SOURCE : STATISTICS CANADA AND BANK OF CANADA

CHART XII

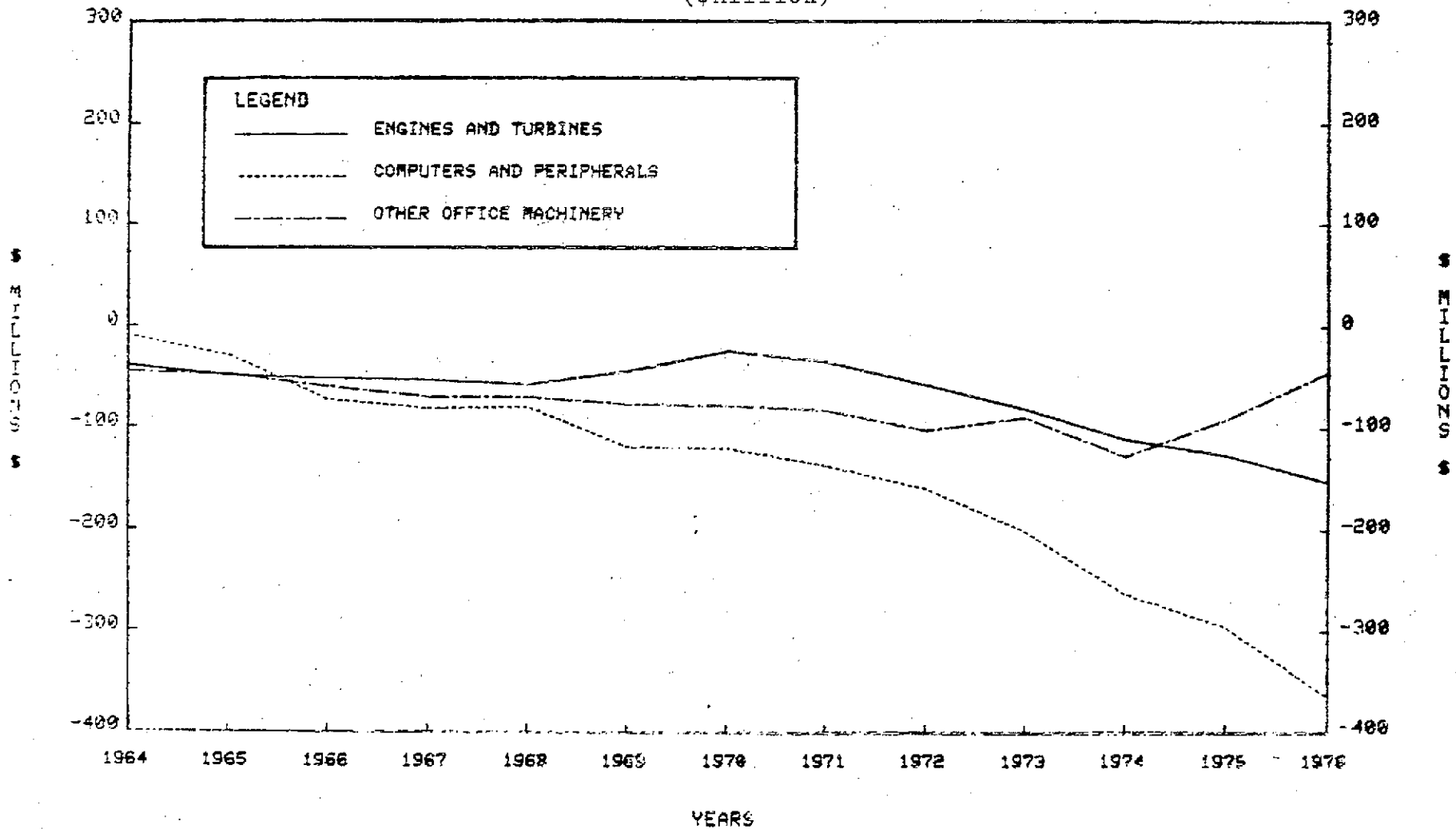
BALANCE OF TRADE IN TECHNOLOGY-INTENSIVE CHEMICALS AND CHEMICAL PRODUCTS
(MILLIONS OF DOLLARS)



SOURCE : TRADE OF CANADA DATA, STATISTICS CANADA

CHART XIII

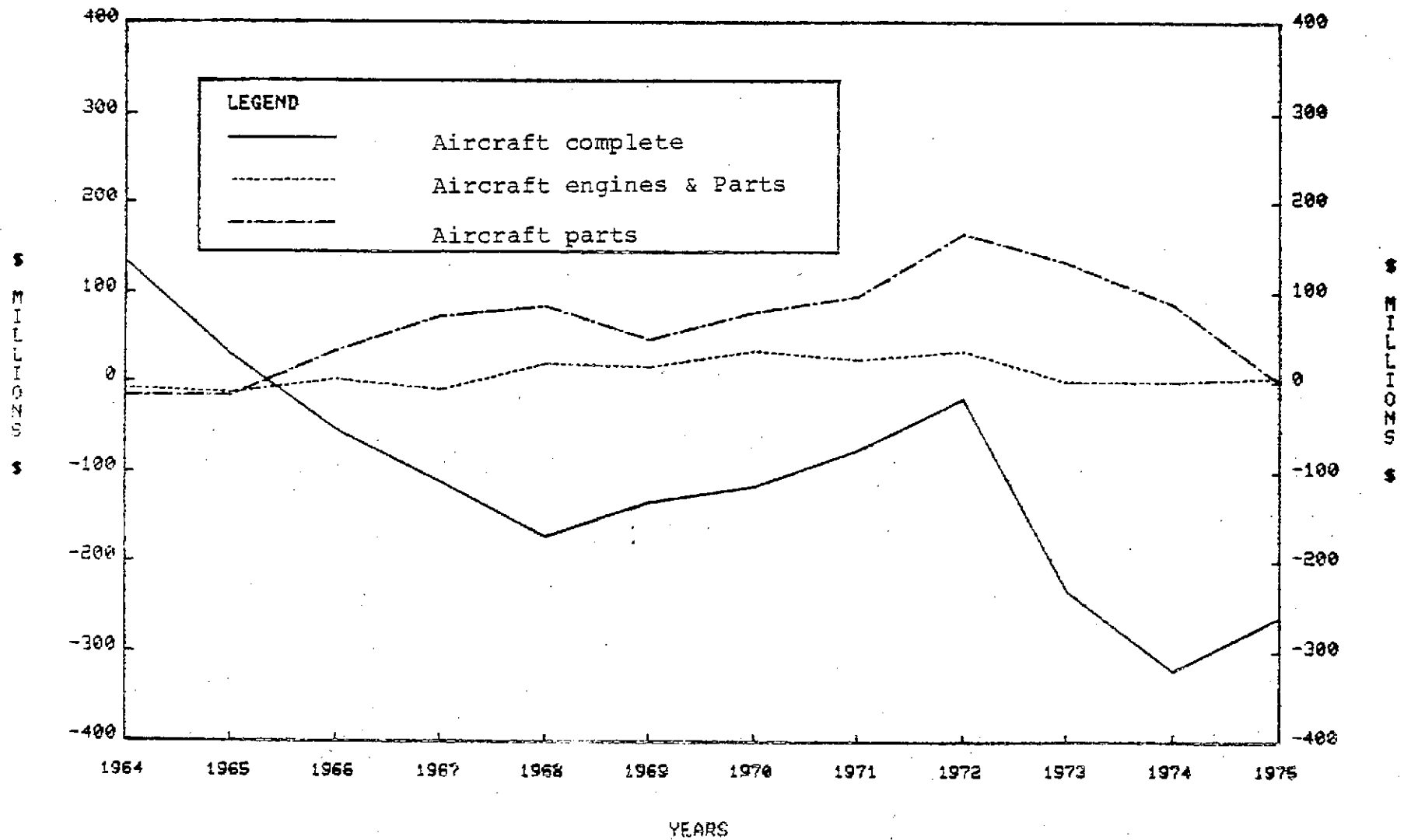
BALANCE OF TRADE IN TECHNOLOGY-INTENSIVE
MACHINERY
(\$Million)



SOURCE : STATISTICS CANADA

CHART XIV

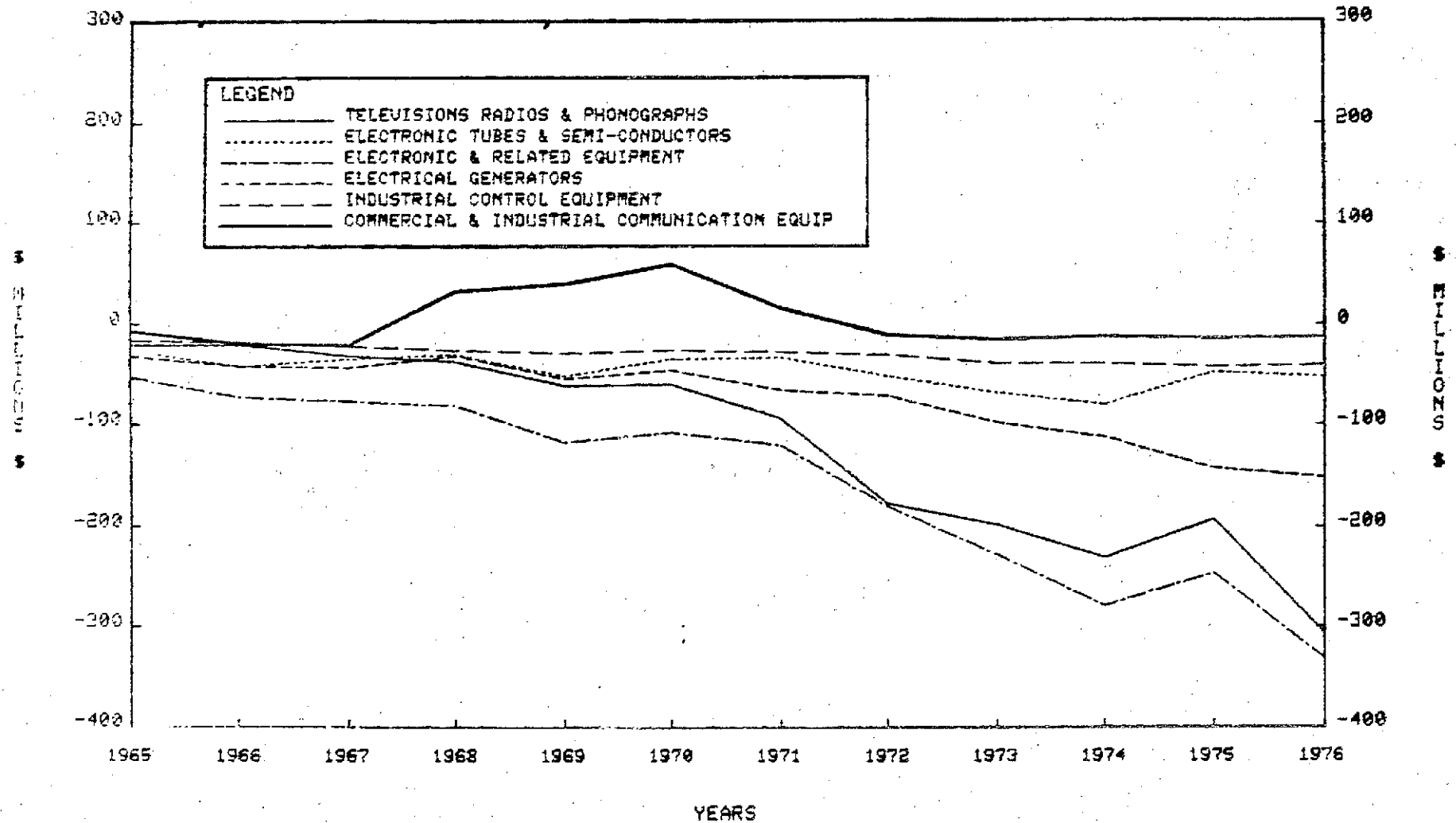
BALANCE OF TRADE IN AIRCRAFT
(\$Million)



SOURCE : TRADE OF CANADA DATA, STATISTICS CANADA

CHART XV

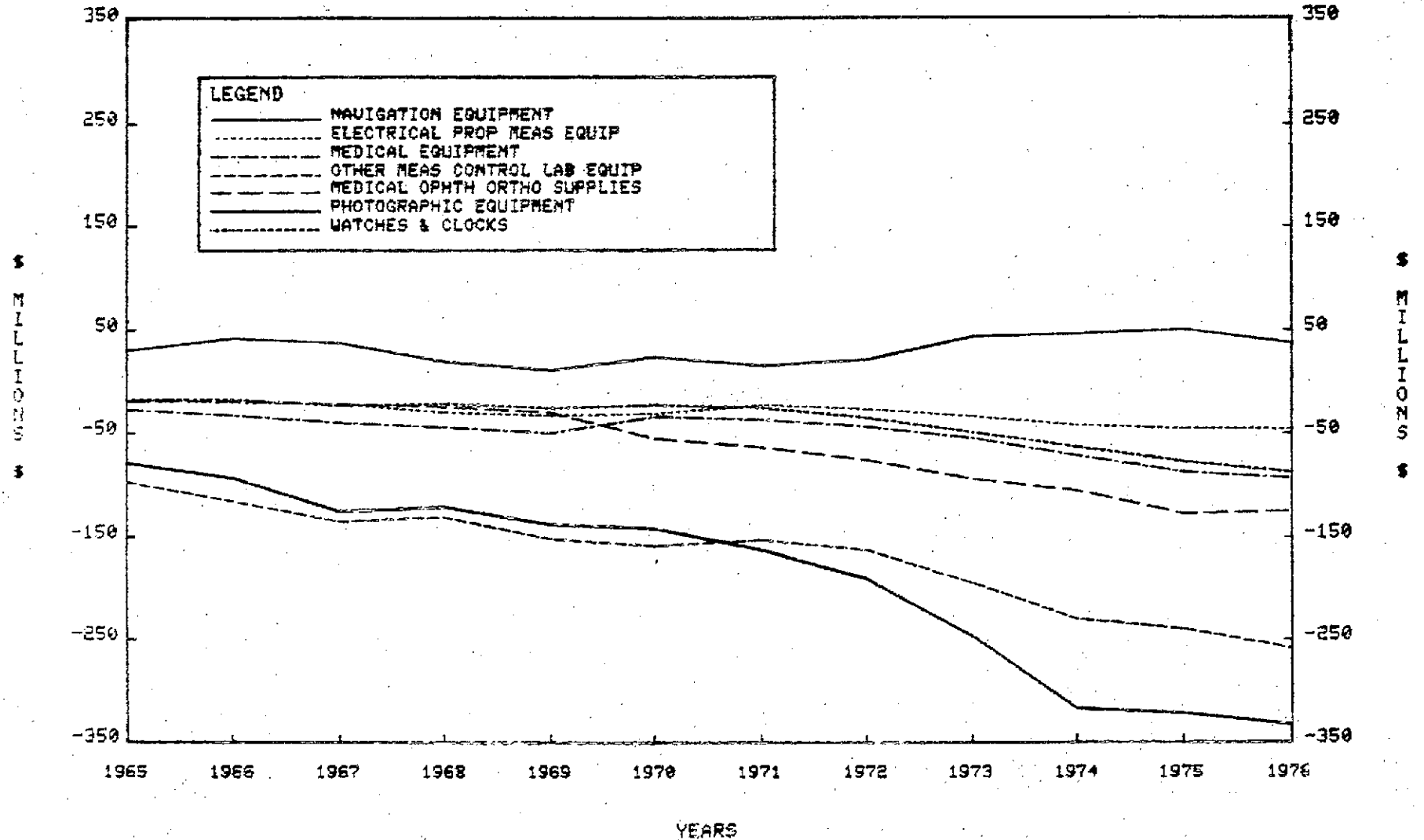
BALANCE OF TRADE IN TECHNOLOGY-INTENSIVE ELECTRICAL PRODUCTS
(MILLIONS OF DOLLARS)



SOURCE : TRADE OF CANADA DATA, STATISTICS CANADA

CHART XVI

BALANCE OF TRADE IN SCIENTIFIC AND PROFESSIONAL EQUIPMENT
(MILLIONS OF DOLLARS)



SOURCE : TRADE OF CANADA DATA, STATISTICS CANADA

PART TWO

CANADA'S EXPORTS

AS A SHARE OF WORLD EXPORTS

CANADA'S EXPORTS AS A SHARE OF WORLD EXPORTS

As Table 1 and Chart I show, Canada's exports increased as a percentage of world exports in the 1960's and declined in the 1970's. Canada's share of world exports was an average of 5.11 percent in the 1961-65 period, increased to 5.84 percent in the 1966-1970 period and declined to 4.78 percent in the 1971-76 period.

Tables 2, 3 and 4 and Chart II outline Canada's export performance compared to the export performance of all developed market economies by major commodity grouping. The only commodity grouping for which Canada increased her export share over the three successive sub-periods considered is that of mineral fuels. With Canada's increasing dependence on oil imports and government policy limiting oil exports, however, this situation has now reversed and our share of oil exports is in decline. Additionally, the definition of "developed market economies" to which these statistics refer, do not include the OPEC nations which are the world's major suppliers of crude petroleum. Canada's share of exports for "crude Materials" and "machinery and transportation equipment" increased in the 1966-70 period and declined moderately in the 1971-75 period. In the "food, feed and beverages", "chemicals" and "other manufactured goods" commodity groupings, Canada's export share declined progressively over the three sub-periods of the 1961-75 period. Canada's share of world export markets for total manufactured goods declined steadily from 5.79 percent in 1969 to 3.83 percent in 1975.

Table 5 compares the export performance in manufactured goods in volume terms for eleven countries. The growth rate in the volume of exports of Canadian manufactured goods has lagged behind that of all the countries shown for the 1970-75 period except for Switzerland. Since Canada has experienced slower growth in export volume than these other countries, it is clear that her export share in manufactures in real terms has also fallen.

Table 6 gives statistics on export shares of the world market for three technology-intensive commodities: telecommunications equipment, aircraft and office machines.

Canada's share of the world market for telecommunications equipment has nearly halved between 1968 and 1973. Except for the year 1973, there appears to be a downward trend in Canada's share of the world aircraft market. In 1968 Canada's share of aircraft exports was 7.8 percent; in 1974 it was 4.1 percent. In the category of office machines, Canada's export share increased progressively over the 1968 to 1972 period and then declined in 1973 and 1974.

TABLE 1

CANADA'S EXPORTS AS A PERCENTAGE OF WORLD EXPORTS - 1961-1976*

<u>1961-1965</u> <u>(Average)</u>	<u>1966-1970</u> <u>(Average)</u>	<u>1971-1976</u> <u>(Average)</u>	<u>1974</u> <u>(Actual)</u>	<u>1975</u> <u>(Actual)</u>	<u>1976</u> <u>(Actual)</u>
5.11	5.84	4.78	4.47	4.28	4.46

A COMPARISON OF ANNUAL GROWTH RATES IN WORLD & CANADIAN EXPORTS*
1961-1976

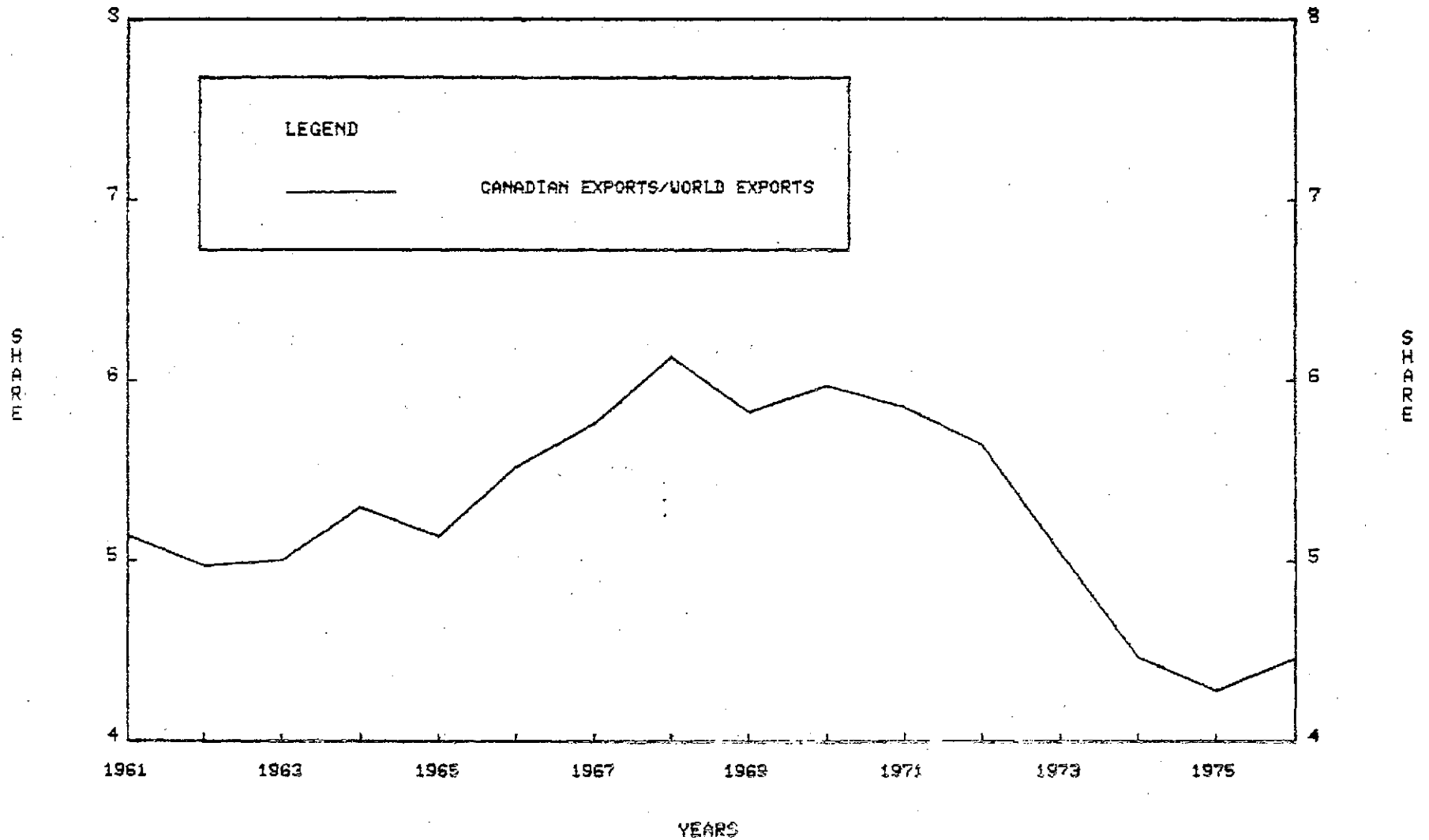
	<u>1961-1976</u>	<u>1961-1965</u>	<u>1966-1970</u>	<u>1972-1976</u>
World Exports	14.5	8.7	11.6	24.5
Canadian Exports	13.4	8.7	13.9	17.4

SOURCE: International Financial Statistics, International Monetary Fund.

*All data have been converted to \$U.S.

CHART I

CANADA'S EXPORTS AS A PERCENTAGE OF WORLD EXPORTS



SOURCE : INTERNATIONAL FINANCIAL STATISTICS, INTERNATIONAL MONETARY FUND

TABLE 2

A COMPARISON OF ANNUAL GROWTH RATES OF CANADIAN EXPORTS WITH
EXPORTS FROM ALL DEVELOPED MARKET ECONOMIES 1961-75

<u>Commodity</u>	<u>Origin of Exports</u>	<u>1961-1975</u>	<u>1961-1965</u>	<u>1966-1970</u>	<u>1971-1975</u>
Food, feed, beverages	DME*	12.4	8.2	6.2	24.6
	Canada	8.8	6.6	- 0.3	17.9
Crude materials	DME	9.3	4.6	8.0	18.8
	Canada	9.2	6.1	10.5	12.8
Mineral fuels and related materials	DME	16.4	5.3	13.9	35.0
	Canada	25.2	15.9	20.8	43.4
Chemicals	DME	15.7	11.3	12.9	25.4
	Canada	13.3	11.9	12.4	15.9
Machinery and trans- portation equipment	DME	16.1	10.6	15.1	23.5
	Canada	23.6	24.2	28.4	12.4
Other manufactured goods (a	DME	13.7	9.5	12.6	21.3
	Canada	8.8	6.1	11.5	11.9

* Developed Market Economies

a) This category includes "basic" manufactures such as wood and paper, textiles, iron and steel, non-ferrous metals and basic metal manufactures as well as "end" products such as clothing, furniture, sporting goods, printed matter and other miscellaneous end products.

SOURCE: Monthly Bulletin of Statistics, United Nations

TABLE 3

CANADIAN EXPORTS AS A PERCENTAGE OF EXPORTS OF ALL DEVELOPED
MARKET ECONOMIES 1961-1975

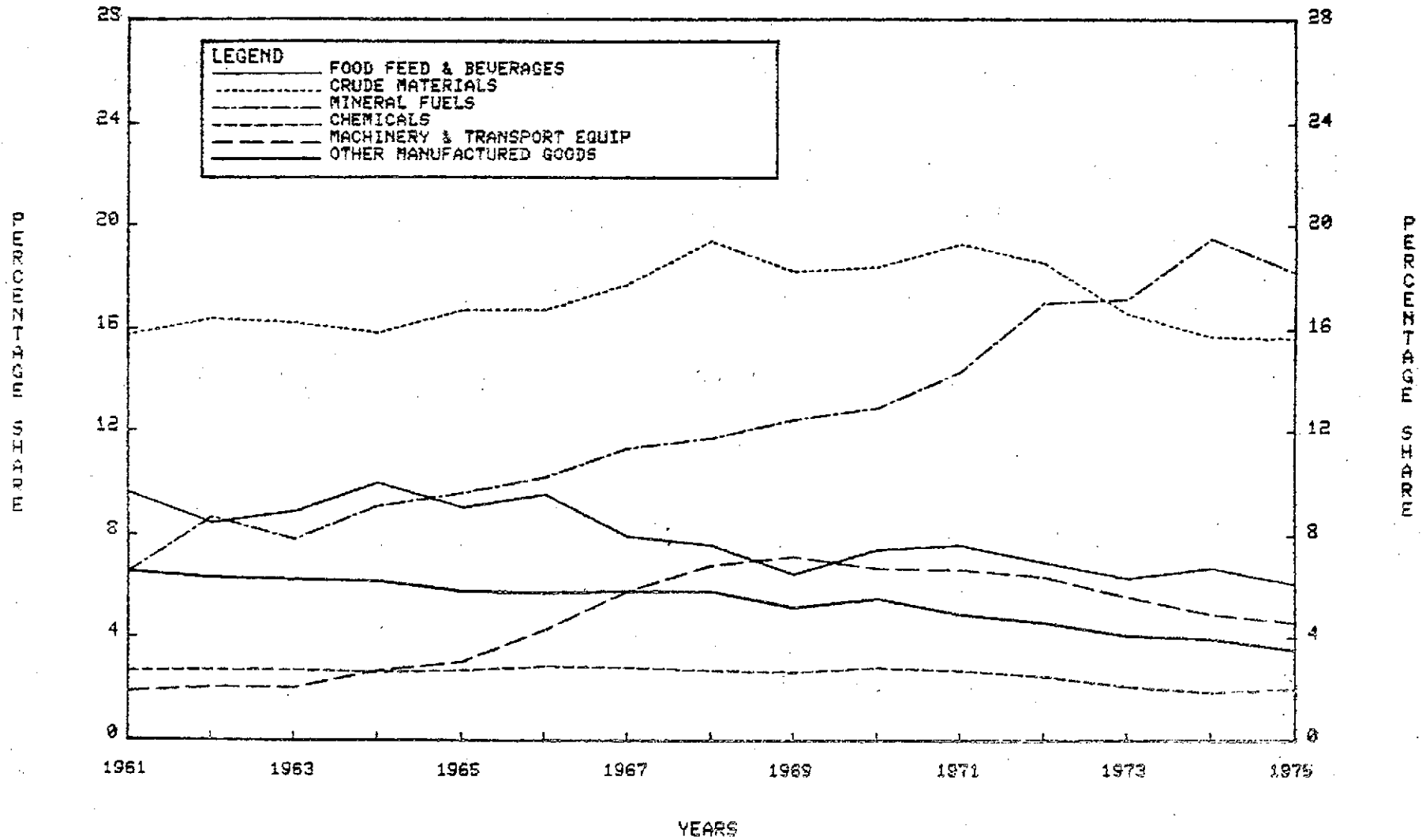
<u>COMMODITY</u>	<u>1961-1965</u> ¹	<u>1966-1970</u> ¹	<u>1971-1975</u> ¹
Food, feed, beverages	9.2	7.8	6.7
Crude materials	16.2	18.1	17.1
Mineral fuels and related materials	8.3	11.7	17.2
Chemicals	2.7	2.8	2.3
Machinery and transportation equipment	2.3	6.1	5.6
Other manufactured goods	6.2	5.6	4.2

¹ Five-year averages

SOURCE: Monthly Bulletin of Statistics, United Nations

CHART II

CANADIAN SHARE OF EXPORTS OF ALL DEVELOPED MARKET ECONOMIES BY MAJOR COMMODITY GROUPING



SOURCE : MONTHLY BULLETIN OF STATISTICS, UNITED NATIONS

INDEXES OF THE PRICES AND VOLUME OF EXPORTS OF MANUFACTURED
GOODS FOR THE WORLD MARKET ECONOMY AND SELECTED COUNTRIES
(1970=100)

	1963	1966	1967	1968	1969	1971	1972	1973	1974	1975
C. Manufactured goods — Produits manufacturés										
UNIT VALUE INDEXES										
Total..	86	90	91	91	94	105	113	133	162	182
Belgium-Luxembourg..	86	91	91	90	94	101	112	137	171	185
Canada	80	85	88	91	93	103	107	112	134	141
France	88	96	95	96	97	105	115	143	162	197
Germany, Fed. Rep. of	88	91	90	98	92	108	117	147	172	195
Italy	92	91	91	90	93	106	114	126	154	181
Japan	90	87	90	91	95	114	116	141	181	178
Netherlands	94	98	97	95	97	104	117	139	178	196
Sweden	81	86	89	89	92	105	120	143	173	206
Switzerland	83	91	93	97	96	109	122	154	185	220
United Kingdom	88	94	95	90	93	106	116	127	153	177
United States	81	87	89	91	95	122	104	113	137	159
QUANTUM INDEXES										
Total..	49	66	70	81	93	108	118	134	148	141
Belgium-Luxembourg..	41	64	66	78	92	106	123	139	141	128
Canada	36	58	69	83	94	105	113	126	127	121
France	49	62	66	73	85	103	123	135	156	151
Germany, Fed. Rep. of	48	65	71	82	93	106	115	133	150	133
Italy	38	64	69	84	95	103	124	133	142	144
Japan	31	57	60	74	87	121	129	136	160	164
Netherlands	43	60	64	76	90	114	129	147	158	148
Sweden	52	68	72	78	89	105	109	126	135	129
Switzerland	57	70	73	80	94	104	111	122	133	119
United Kingdom	67	79	78	88	99	109	109	124	128	176
United States	61	75	79	88	96	101	110	135	158	152

SOURCE: Yearbook of International Trade Statistics 1975
United Nations

TABLE 6

Export shares of world market for telecommunications equipment (%)

Country	1968	1973	Change 1973 compared to 1968
Australia	----- Negligible export share -----		
Belgium	3.5	4.7	+ 34
Canada	5.4	2.8	- 48
France	3.9	3.7	- 6
Germany	12.7	14.5	+ 14
Italy	3.6	4.4	+ 22
Japan	27.2	34.4	+ 26
Netherlands	6.9	4.2	- 29
UK	8.1	6.4	- 21
US	16.6	15.5	- 7
Total	86.9	90.6	+ 4

Source: UTM analysis of statistics in *Yearbook of International Trade Statistics*, United Nations.

Aircraft: share of world exports as a percentage

Country	1969	1969	1970	1971	1972	1973	1974
Australia	0.34	0.6	0.87	0.4	1.0	1.2	1.2 ^a
Belgium-Lux	1.3	1.3	1.2	0.9	1.4	0.9	0.7
Canada	7.8	6.1	6.9	5.2	8.0	5.1	4.1
France	5.6	6.6	7.4	5.4	6.9	6.7	4.7
Germany	2.7	2.2	2.8	1.7	2.1	0.3	2.8
Italy	2.0	3.0	2.1	2.5	2.5	2.2	2.4
Japan	1.6	1.2	0.81	0.8	0.7	0.6	0.6 ^a
Netherlands	2.5	3.1	2.4	2.3	2.6	3.0	2.6 ^a
UK	9.2	11.1	7.7	8.0	9.7	9.5	8.3
US	64.1	62.6	64.3	68.9	61.0	66.0	69.0
Total by 10 countries	97.1	97.7	96.3	95.9	95.8	93.5	96.0 ^a assumption

Source: Derived from data in various editions of *Yearbook of International Trade Statistics*, United Nations.

continued next page

TABLE 6 (continued)

Office machines — share of world exports as a percentage

Country	1968	1969	1970	1971	1972	1973	1974
Australia	0.21	0.19	0.15	0.2	0.17	0.15 ^a	
Belgium—Lux	0.59	0.74	0.97	1.27	1.5	1.47	1.46
Canada	2.38	2.71	2.98	3.64	4.0	3.40	3.32
France	8.43	8.36	7.58	8.25	8.63	8.04	7.47
Germany	16.1	15.6	14.8	16.1	18.3	17.4	17.5
Italy	10.5	8.27	8.39	7.63	6.0	4.78	5.07
Japan	4.9	6.64	7.77	8.29	8.9	11.2	8.43
Netherlands	3.68	3.52	3.0	3.62	3.07	2.82	
UK	9.88	9.15	8.8	9.45	9.25	9.7	9.8
US	32.4	35.2	36.5	33.0	29.8	29.3	31.7
Total	89.1	90.4	90.7	91.4	89.6	88.3	88 ^a assumption

Source: Derived from data in various editions of *Yearbook of International Trade Statistics*, United Nations.

