The Other Side of Trade Flows in the New International Economic Order: A Case Study of Canadian Exports to Developing Countries

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The New International Economic Order seeks to improve the benefits accruing to developing countries (LDCs) from participation in world economic relations. One facet of such relations is merchandise trade, in which the desire of LDCs is to achieve a more rapid expansion of exports,[1] in particular a share of 25% of the world's trade in manufactured goods. The historical timing of these pressures is unfortunate, coinciding with a period of soft economic activity in most advanced countries (MDCs), who have therefore reacted less than enthusiastically to the prospects of even greater "flooding" of light-manufactures from LDC's. Indeed, it has been argued that a "new protectionism" atmosphere prevails,[2] rather than one of liberalization. In such a context, it is imperative to bring into the discussion not only the potential expansion of LDC exports, but also the reverse flow of expanded exports from

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1 For a review of the change in trade orientations to export promotion see Askari and Corbo (1978), Diaz-Alejandro (1975), Little, Scitovsky and Scott (1970) and special issue on "Latin-America in the Post-Import-Substitution Era" in *World Development* (1977, January-February).

2 Balassa (1978).

MDCs to LDCs occasioned by the faster growth of LDC economies which would accompany their invigorated exports. In the present paper, we propose merely a first step in this direction for the case of Canada, analyzing the past trends of Canadian exports to LDCs and isolating the net effect of various forces behind these trends, using the convenient summary techniques of market-share analysis.

The paper comprises three sections. Section I describes the size of the LDC market for Canadian exports, its commodity composition, the geographic distribution, and how these compare with the nature of exports to LDCs from all MDCs. In Section II we use a market-share model to analyze the changes in Canadian exports over time, and in particular to compare the main tendencies with those observed for exports to LDCs from all MDC sources. Finally, Section III presents the main conclusions.

I. Destination and Composition of Canada's Merchandise Export Flows

The analysis in this section will be done comparing the second half of the 1960's with the first part of the 1970's, using annual averages for the periods 1966-1970 and 1971-1975,[3] by commodity groups and by import areas of the world.

The developing world is a minor market for Canadian exports comprising only 7.5% of total exports in the period 1966-1970 and 8% in the period 1971-1975. (Table 1.) In comparison, for the period 1971-1975, for the entire developed world 21.3% of exports went to LDCs. For individual MDCs, this share was: USA 31.3%, Japan 44.3%, and EEC of nine 16.6% (Table 2).

One might expect this small LDC weight in Canada's exports *a priori*, inasmuch as both are major exporters of natural resource-based commodities (Group 1 to 3). If this explanation were correct, the smaller weight in Canada's export basket should be particularly

3 The source of our data is a set of tables prepared for us by the Department of Industry, Trade and Commerce (Government of Canada) giving trade between Canada and twelve LDC regions plus the developed and socialist world, for every year in the period 1966-1975 of the four-digit SITC level and by the Statistics of Canada definition of three stages of fabrication.

The grouping shown in our tables correspond to the SITC classification as follows: Group 1 -SITC 0 + 1; Group 2 - SITC 2 + 4. Group 3 - SITC 3. Group 4 - SITC 5; Group 5 - SITC 6; Group 6 - SITC 7; Group 7 - SITC 8 and Group 8 - SITC 9.

Table 1

DESTINATION OF CANADIAN EXPORTS BY COMMODITY GROUP
1966-1970 AND 1971-1975
(PERCENTAGES)

	Asia	Africa	Middle East	Latin America	Developing World	Developed And Soc. World	Total World (US$ Millions)
Total Exports (1966-70)	2.01	.94	.49	4.98	7.52	92.48	12520.3
Total Exports (1971-75)	1.99	1.05	.95	3.98	7.97	92.03	25628.7

Table 2

WEIGHT OF LDC IN DEVELOPED COUNTRIES
EXPORTS BY COMMODITY GROUP
1971-1975
(PERCENTAGES)

Commodity Group	Canada	USA	Japan	EEC of 9	All MDC's
1	19.98	36.47	41.20	13.15	20.94
2	4.23	23.93	56.16	7.59	12.67
3	0.20	16.62	76.83	5.13	6.76
4	10.88	38.97	52.27	19.37	25.80
5	9.79	33.79	49.28	15.03	21.01
6	7.66	31.52	43.45	21.99	25.87
7	6.71	25.58	32.49	10.38	14.27
Total Exports	7.97	31.22	44.30	16.56	21.34

Sources: Values for Canada are from Table 2, in Corbo and Hawrylyshyn (1978), for other columns the raw data was obtained from OECD, *Commodity Trade, Exports, Detailed Analysis by Products* (different issues).

accentuated for primary commodities, whereas for others it should probably be higher in at least certain cases. Disaggregated data suggest almost the opposite tendency as shown in Table 2. For every commodity group LDCs account for a smaller share of Canadian exports than is the case for any other MDC region. A slight exception to this is Group 1 (Food, Live Animals, Beverages and Tobacco), for which the LDC share is somewhat higher (19.98) than that of EEC (13.15).

Turning to the regional distribution of Canada's exports to the developing world, we see from Table 1 that Latin-America is the main trade partner accounting for about 50% of exports in both periods. This predominance holds true for most of the commodity groups.[4] The only significant change over time has been the approximate doubling of the Middle East share in exports to LDCs.

In Tables 3 and 4 we present the commodity composition of Canadian exports to the different areas of the developing world. As may be expected, the weight of total manufacturing is higher for the developing countries than for the developed and socialist countries (DSC), but the difference is extremely small. Further disaggregation begins to show important differences; thus, the weight for durable consumer goods is far lower for the developing world, especially in the period 1971-1975. (9.96 versus 19.56 in Table 4), while for capital goods the higher weight in the developing world is accentuated vis-à-vis the average of total manufacturing.

For primary commodities the LDC weight is lower than the DSC one, but again the difference is only slight. Within this group a substantial difference in pattern is evident. Food items (Group 1) is a far more important component in the export basket to LDCs (25% to 30%) than to DSC (10% to 12%). On the other hand, Industrial Materials and Fuels show the reverse.

In Table 5 we compare, for the period 1971-1975, the commodity composition of Canada's exports to LDCs with the one of USA, Japan, EEC of 9, and all MDC's exports to LDCs. From this table we observe that primary commodities are much more important in Canada's exports to LDCs than in the export basket of other MDCs. The reverse is true for Total Manufactures, where, in every group but Group 5 (Manufactured Materials), Canada's export share is lower than that of other MDCs. The difference is especially accentuated for Group 6 which has a weight of 29.5% in Canada's

4 For details of Canadian export flows by commodity group and by region see Tables 2.1 and 2.2 in Corbo and Hawrylyshyn (1978).

Table 3

COMPOSITION OF CANADIAN EXPORTS BY AREA, 1971-1975 (PERCENTAGES)

Commodity Group	Asia	Africa	Middle East	Latin America	Overloping World	Developed and Soc. World	Total World
1. Food, Live Animals Beverages and Tobacco	31.97	35.81	34.19	27.21	30.37	10.54	12.12
2. Industrial Materials	18.63	10.83	8.26	8.33	11.23	22.01	21.15
3. Fuels and Related Goods	.03	.08	.22	.54	.31	13.52	12.47
Total Primary Commodities	50.63	46.72	42.88	36.08	41.90	46.07	45.74
4. Chemicals	7.09	2.61	1.64	4.15	4.39	3.11	3.21
5. Manufactured Materials	22.30	14.70	19.78	25.03	22.36	17.84	18.20
6. Machinery and Transport Equipment	18.96	33.61	35.00	32.41	29.51	30.85	30.74
6-1. Durable Consumer Goods	(2.52)	(9.06)	(8.11)	(14.36)	(9.96)	(19.56)	(18.79)
6-2. Capital Goods	(16.44)	(24.54)	(26.89)	(18.05)	(19.56)	(11.29)	(11.95)
7. Miscellaneous Manufactured Articles	.76	1.56	.69	2.02	1.49	1.79	1.77
Total Manufactures	49.12	52.48	57.11	63.61	57.75	53.68	53.93
8. Other Commodities	.25	.80	.22	.32	.35	.33	.34
Total Exports	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Stage of Fabrication							
9. Raw Materials	41.26	37.11	34.52	20.77	29.68	31.69	31.53
10. Semi-Finished Products	38.06	22.38	25.32	39.28	35.08	32.67	32.86
11. End Products	20.68	40.51	40.16	39.95	35.24	35.64	35.61
Total Exports in US$ '000	510664.8	269571.8	243433.2	1019885.8	2043555.6	23585114.0	25628669.6

export basket to LDCs and a weight of over 40% in the export basket of other MDCs.

Let us consider the pattern for each of the LDCs areas in turn. In exports to Asia, as shown in Tables 3 and 4, the weight of Food, Fuels, Manufactured Goods (Groups 1, 3, 5 and 7) is very close to that of the LDC average. On the other hand, Industrial Materials and Chemicals are considerably more important while Machinery and Transport equipment is of lesser importance; this is particularly so for the period 1971-1975. For Africa the pattern changes over time. In the first period, primary commodities were slightly below the LDC average and Manufactured Goods slightly above, with the

Table 4

COMPOSITION OF CANADIAN EXPORTS BY AREA, 1966-1975 (PERCENTAGES)

Commodity Group	Asia	Africa	Middle East	Latin America	Developing World	Developed and Soc. World	Total World
1. Food, Live Animals Beverages and Tobacco	30.70	19.37	71.48	23.70	25.53	11.71	12.75
2. Industrial Materials	15.82	14.65	18.26	7.92	11.02	24.20	23.21
3. Fuels and Related Goods	.01	.02	.01	.06	.04	5.85	5.41
Total Primary Commodities	46.53	34.04	89.75	31.68	36.59	41.76	41.37
4. Chemicals	6.71	7.59	2.16	3.94	4.52	3.32	3.41
5. Manufactured Materials	23.27	27.60	20.15	27.45	25.87	23.00	23.21
6. Machinery and Transport Equipment	22.57	32.77	32.55	34.03	30.72	29.78	29.85
6-1. Durable Consumer Goods	(4.45)	(17.72)	(6.49)	(17.78)	(13.48)	(17.52)	(17.22)
6-2. Capital Goods	(18.12)	(15.05)	(26.06)	(16.25)	(17.24)	(12.26)	(12.64)
7. Miscellaneous Manufactured Articles	.78	1.75	1.16	2.32	1.71	1.39	1.42
Total Manufactures	53.33	65.71	55.91	67.74	62.82	57.50	57.90
8. Other Commodities	.14	.65	2.33	.58	.59	.74	.73
Total Exports	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Stage of Fabrication							
9. Raw Materials	38.56	19.22	72.95	13.66	22.25	27.94	27.51
10. Semi-Finished Products	35.97	43.30	28.24	42.07	39.70	37.20	37.39
11. End Products	25.47	37.48	38.81	44.27	38.15	34.86	35.10
Total Exports in US$ '000	251202.4	118181.0	61219.2	511312.0	941894.6	11578383.0	12520277.6

exact opposite situation in the second period. The difference is mainly due to the substantial rise in the weight of Food from 19.37% to 35.81%. This is attributable to much higher Canadian exports to Africa of wheat (SITC 041) which rose from about 14 million dollars in the first period (12% of the basket) to 82 million in the second period (30% of the basket).

For the Middle East primary commodities are of slightly higher weight and manufactures slightly lower weight than the LDC average although in the second period the difference is very small. At a higher level of disaggregation the major variation from the average occur for Food and Live Animals and Manufactured

Table 5

COMMODITY COMPOSITION OF MDC'S EXPORTS TO LDC'S: 1971-1975 (PERCENTAGES)

Commodity Group	Canada	USA	Japan	EEC of 9	All MDC's
1	30.37	18.07	1.76	8.47	10.67
2	11.23	8.93	2.36	1.80	4.36
3	.31	1.84	.60	1.47	1.38
Total Primary Comm.	41.91	28.84	4.72	11.74	16.41
4	4.39	10.66	7.86	13.18	11.00
5	22.36	11.40	34.84	21.26	21.53
6	29.51	42.11	46.43	46.53	43.88
7	1.49	4.69	5.29	6.09	5.71
Total Manufactures	57.74	68.86	94.42	87.06	82.13
8	.35	2.30	.86	1.20	1.47
Total	100.00	100.00	100.00	100.00	100.00

Sources: Values for Canada are from Table 4, for other columns the raw data was obtained from OECD, *Commodity Trade Exports, Detailed Analysis by Products* (different issues).

Materials. The former is considerably above and the latter is somewhat below the average. An important variation over time is the increase in the weight of Machinery and Transport equipment which is above the average for both periods but far more so in the second period. This no doubt reflects the increased purchasing power of oil producing countries and their substantial investment in infrastructure. Latin America, which as we noted is the major market for Canada's exports, purchases relatively less primary commodities and relatively more manufactured goods than the LDC average. The most important difference in the Latin America basket is the higher weight for Manufactured Materials.

In fact, Latin America is the only area where this value is above the average in the second period. The importance of this is largely attributable to Paper and Paper Board products (SITC 641, which includes newsprints) accounting for about 10% of exports to Latin America in both periods.

Despite this variation across the areas the overall pattern for LDC is not far from being representative of the individual areas.

At the bottom of Tables 3 and 4 the commodities are grouped in accordance with the Statistics Canada classification by stage of fabrication. In relative terms the major portion of Canadian exports to LDC is in semi-finished and finished (end) products, which account for nearly 78% of the total in the first period and 70% in the second. For the DSC the importance of these goods is slightly lower but show the same trend going from 72% in the first period to 68% in the second period. Within the developing world, a far greater variation around the LDC average than revealed by the commodity group analysis is apparent. Asia stands out as being substantially above the average for Raw Materials and substantially below the average for End Products. Africa's basket composition is unstable over time with raw materials below average in the first period and far above in the second. This result is due again to the large increase in wheat exports. Semi-finished goods show the opposite tendency falling from 43% to 22% of the basket. Thirteen of these percentage points are due to the drop in the weight of Aluminium (SITC 684) which went from 14.5% to 1.5%.

The composition of the Middle East basket does not change very much over time and is not nearly as different from the LDC average as it is the case for Asia and Africa. Raw materials are somewhat higher than the average, semi-finished products are below average and end products above the average, particularly in the second period. We have seen earlier that Latin America is the only area where the weights of primary commodities is below the LDC average. This is shown even more dramatically by the stage of fabrication data: thus, whereas raw materials account for 22% and 30% of the LDC basket in the two periods, the comparable values for Latin America are 14% and 21%.

At a higher level of disaggregation (three-digit SITC) the three main commodity categories with respect to total exports of Canada to the developing world are (1) Wheat (SITC 041) with a share of 12.3% in the period 1966-1970 and a share of 19.7% in the period 1971-1975; (2) Road Motor Vehicles (SITC 732) with a share of

13.4% in the period 1966-1970 and a share of 9.9% in the period 1971-1975; (3) Paper and Paper board products (SITC 641) with a share of 8.6% in 1966-1970 and a share of 8.4% in the period 1971-1975. In total these products accounted for 34% and 38% of Canadian exports to LDC in the two periods. The same three products comprised 31% and 30% of Canadian exports to the DSC. Clearly, they are important not only in Canadian exports to the LDC world but in the total of Canada's export basket.

To conclude our analysis of Canada's export to the developing world one may observe three principal characteristics of these trade flows. First, the composition of these exports is not nearly as different from exports to DSC as one might expect, Primary Commodities accounting for about 35% to 40% in the LDC basket as compared to 40% to 45% in the total export baskets. Underlying the total for Primary Commodities, however, Food items are far more important in the LDC basket while Industrial Materials are far less important. Second, over time the importance of the Primary Commodity group has increased in the basket both to the DSCs and the LDCs. Third, over 30% of total exports is accounted for by only three commodity categories in both baskets - Wheat, Road Motor Vehicles and Paper and Paper Board products. Finally, one may add that these three characteristics are equally applicable to the individual areas within the developing world.

II. Market Share Analysis of Canada's Export Flows to the Developing World

In this section we use a market share model to analyse the evolution of Canada's exports to the developing world. In a market share analysis the export performance of a given country (Canada in our case) in a given market (the whole developing world in our case) is compared with the export performance of its main competitors (OECD countries in our case). In this analysis four factors are used to account for export growth:[5] growth of all exports to the developing world, concentration of exports in commodities in which trade is grown at a rate higher than the average growth of exports, buoyancy in particular importing markets and the country's own competitiveness. Let us specify the market share model

5 On this method, see especially Richardson (1971a, 1971b) and Hickman, B. G., Y. Kuroda and L. S. Lau (1977). For a recent evaluation see Magee, S. (1975).

more fully.[6]

We define the following variables:

q_{is} , Q_{is} = Canada's and developed-world (including Canada) exports of commodity group i to developing region s.

$q_{i.}$, $Q_{i.}$ = Canada's and developed-world exports of commodity group i to the developing world.

$q_{R.}$, $Q_{R.}$ = Canada's and developed-world exports of commodity subset R to the developing world.

q , Q = Canada's and developed-world total exports to the developing world.

α_{is} = Share of Canadian exports in developed-world exports of commodity group i to developing region s.

$\alpha_{i.}$ = Share of Canadian exports in developed-world exports of commodity group i to the whole developing world.

α_{R} = Share of Canadian exports in developed-world exports of commodity subset R to the whole developing world.

α = Share of Canadian total exports in developed-world total exports to the whole developing world.

In developing the model we start with the following identity for Canada's exports of commodity i to region s

$$q_{is} \equiv \alpha_{is} Q_{is}$$

Differentiating this identity, we obtain:[7]

$$\dot{q}_{is} \equiv \alpha_{is} \dot{Q}_{s} + \dot{\alpha}_{is} Q_{is} \qquad (1)$$

Then adding over all regions s we have:

$$\dot{q}_{i} \equiv \sum_{s} \dot{q}_{is} \equiv \sum_{s} \alpha_{is} \dot{Q}_{is} + \sum_{s} \dot{\alpha}_{is} Q_{is}$$

Finally, adding and subtracting $\alpha_{i.} \dot{Q}_{i.}$ we have:

$$\dot{q}_{i} \equiv \alpha_{i.} \dot{Q}_{i.} + \Sigma \alpha_{is} \dot{Q}_{is} - \alpha_{i.} \dot{Q}_{i.} + \Sigma \dot{\alpha}_{is} Q_{is}$$

6 In this paper we develop a current price model for ease of presentation although in the actual computation a constant price version is used.

7 We follow the standard convention by which a dot over a variable indicates its rate of change per unit of time.

where $\alpha_{i\cdot} \cdot \dot{Q}_{i\cdot}$ = "World growth effect" for commodity i

$\sum_s \alpha_{is} \dot{Q}_{is} - \alpha_{i\cdot} \cdot \dot{Q}_{i\cdot}$ = "Market effect" for commodity i

$\sum_s \dot{\alpha}_{is} Q_{is}$ = "Competitive effect" for commodity i.

If we aggregate over a subset R of commodities we obtain:

$$\dot{q}_{R\cdot} \equiv \sum_{i \in R} \dot{q}_{i\cdot} \equiv \sum_{i \in R} \alpha_{i\cdot} \dot{Q}_{i\cdot} + \left[\sum_{i \in P} \sum_s \alpha_{is} \dot{Q}_{is} - \sum_{i \in P} \alpha_{i\cdot} \dot{Q}_{i\cdot} \right] + \sum_{i \in R} \sum_s \dot{\alpha}_{is} Q_{is}$$

Now adding and subtracting $\alpha_{R\cdot} \dot{Q}_{R\cdot}$ we obtain:

$$\dot{q}_{R\cdot} \equiv \alpha_{R\cdot} \dot{Q}_{R\cdot} + \left[\sum_{i \in R} \alpha_{i\cdot} \dot{Q}_{i\cdot} - \alpha_{R\cdot} \dot{Q}_{R\cdot} \right] \qquad (2)$$

$$+ \left[\sum_{i \in R} \sum_s \alpha_{is} \dot{Q}_{is} - \sum_{i \in R} \alpha_{i\cdot} \dot{Q}_{i\cdot} \right] + \sum_{i \in R} \sum_s \dot{\alpha}_{is} Q_{is}$$

In our calculations we carry out this computation for R = 1, 2 and 3 in accordance with the Statistics Canada grouping of commodities by stage of fabrication.

Finally we can add across all commodities to obtain a decomposition of the total change in Canada's export. Thus we have:

$$\dot{q} \equiv \alpha \dot{Q} + \left(\sum_i \alpha_{i\cdot} \dot{Q}_{i\cdot} - \alpha \dot{Q} \right) \qquad (3)$$

$$+ \left[\sum_i \sum_s \alpha_{is} \dot{Q}_{is} - \sum_i \alpha_{i\cdot} \dot{Q}_{i\cdot} \right] + \sum_i \sum_s \dot{\alpha}_{is} Q_{is}$$

where

$$\alpha\dot{Q} = \text{"world growth effect"}$$

$$\sum_i \alpha_{i.} \dot{Q}_{i.} - \alpha\dot{Q} = \text{"commodity-composition effect"}$$

$$\sum_i \sum_s \alpha_{is} \dot{Q}_{is} - \sum_i \alpha_{i.} \dot{Q}_{i.} = \text{"market effect"}$$

$$\sum_i \sum_s \dot{\alpha}_{is} Q_{is} = \text{"competitive effect"}$$

Equations (2) and (3) give only a decomposition of a country's change in exports to a given market, but no cause-effect relation should be inferred from this decomposition. Furthermore, the results may be sensitive to whether the "commodity-composition effect" or the "market effect" is calculated first.

In the above equations the "commodity effect" is computed first. Similar equations can be derived with the "market effect" computed first.[8] In our computation we will use both formulae and then we will study how sensitive our results are to the order of the computations. Finally, since each of the separate effects are measured at constant prices, we add a "price effect" to account for current dollar changes. In order to apply this model in discrete time we must face and additional complication, namely, the choice of weights. As the results may differ by using end of period, beginning of period or combination of these weights and there is no *a priori* rationale to choose one set of weights, we perform a sensitivity analysis by using three alternative sets.

In summary this market-share model permits us to measure the relative importance of five separate factors accounting for Canadian export growth.

1. The "world-growth effect" measures what Canada's growth in total exports would have been if it had maintained its past share in total exports from the developed world to the developing countries.

8 See for example Corbo and Hawrylyshyn (1978, Appendix H).

2. The "commodity-composition effect" measures that part of Canada's export change that can be accounted for by Canada's export composition diverging from the composition of all exports from the developed to the developing world.

3. The "market effect" measures that part of Canada's export performance that is due to the fact of its exports being more concentrated in geographic markets that are more (or less) buoyant than the world average.

4. And the "competitive effect," in essence the residual term, is a measure of that portion of export performance that is due to an improvement (deterioration) in competitiveness. This could be due to factors such as: lower prices over time, quality improvements over time, improvements in marketing efficiency over time, and so on.

5. The "price effect" measures the part of the change in current dollars exports that can be accounted for by price change, keeping the export volume constant.

Now we turn to an analysis of the results. Table 6 presents the dollar values for the five effects, while Table 7 shows this in percentage terms. In these tables we compare annual averages for the period 1971-1974 with annual averages for the period 1966-1970.

As an example of interpretation of the results we take the case of raw materials using 1966-70 weights, the first panel in the tables. The actual change in Canada's exports of raw materials to the developing world between the two periods was 336.6 million dollars. The value of 84.4 million dollars in the column of the "world growth effect" indicates how much Canada's exports of raw materials to the developing world should have increased in order that Canada keep its share of developed world exports of total raw materials to the developing world. The 15.0 millions of dollars in the "market effect column" indicates how much Canada's exports to LDC's should have increased, for Canada to keep its share in each regional market. The positive value for this effect indicates that Canada's exports of raw materials have been directed to markets where exports from the developed world have grown at rates higher than the average for the whole developing world. The 210.4 millions of dollars under the "price effect" column indicates how much Canada's exports of raw materials should have increased by straight re-pricing of the export flow of the first period. Finally, the 26.8 millions of dollars under the column of the "com-

Table 6

MARKET SHARES ANALYSIS OF CANADIAN EXPORTS TO DEVELOPING COUNTRIES COMPARISON OF 1966-70 WITH 1971-74, USING SHARES AT CONSTANT PRICES (IN THOUSANDS OF $US)

	Actual Change in Exports	World Growth Effect	Commodity Composition Effect	Market Effect	Competitive Effect	Price Effect
		Evaluated at Period 1966-70 Prices				
Weights Using Shares in 1966-70						
Commodity Effect Computed First						
Group 1-Raw Materials	336620.95	84429.98		15018.16	26812.06	210360.74
Group 2-Semi-Finished Goods	280776.68	194447.36		-36689.72	-34024.76	157043.80
Group 3-End Products	228306.72	239872.49		-50596.42	-82404.37	121435.02
Total Exports	845704.34	831322.21	-112572.39	-72267.98	-89617.07	488839.56
Market Effect Computed First						
Total Exports	845704.34	631322.21	-95013.58	-89826.78	-89617.07	488839.56
Weights Using Average of Shares In 1966-70 and in 1971-74						
Commodity Effect Computed First						
Group 1-Raw Materials	336544.70	91231.41		2311.29	32641.26	210360.74
Group 2-Semi-Finished Goods	280954.90	178323.87		-28107.71	-26305.05	157043.80
Group 3-End Products	228307.84	212171.29		-36624.43	-68674.04	121435.02
Total Exports	845807.44	748123.14	-266396.57	-62420.85	-62337.84	488839.56
Market Effect Computed First						
Total Exports	845807.44	748123.14	-250829.04	-78188.38	-62337.84	488839.56
Weights Using Shares in 1971-74						
Commodity Effect Computed First						
Group 1-Raw Materials	336468.46	98032.85		-10395.59	38470.45	210368.74
Group 2-Semi-Finished Goods	281133.13	162200.37		-19525.70	-18585.34	157643.80
Group 3-End Products	228308.96	184470.09		-22652.44	-54943.71	121435.02
Total Effect Computed First	845910.55	864924.07	-420220.75	-52573.73	-35058.60	488839.56
Market Effect Computed First						
Total Exports	845910.55	864924.07	-406244.49	-66549.98	-35058.60	488839.56

petitive effect" indicates the part of the increase in Canada's exports of raw materials to the LDC's that cannot be accounted for by the previous four effects.

In the second row of Table 6, we see that for the case of semi-finished products, the "world growth effect" is positive. On the other hand, a loss of 36.7 million dollars of exports to LDC's can be accounted for by the "market effect"; an increase of 157.0 million dollars can be accounted for by the "price effect," and a loss of 34.0 million dollars can be attributed to the "competitive effect."

The third row of Table 6, shows that for finished products the "world growth effect" is positive and higher than the actual change

Table 7

PROPORTIONAL CONTRIBUTION OF THE COMPONENTS IN THE MARKET SHARES ANALYSIS OF CANADIAN EXPORTS TO DEVELOPING WORLD, COMPARING 1966-76 WITH 1971-74 AND USING SHARES AT CONSTANT PRICES (IN PERCENTAGES OF ACTUAL CHANGE)

	Actual Change in Exports	World Growth Effect	Commodity Composition Effect	Market Effect	Competitive Effect	Price Effect
		Evaluated at Period 1966-70 Prices				
Weights Using Shares in 1966-70						
Commodity Effect Computed First						
Group 1-Raw Materials	336620.95	25.08		4.46	7.97	62.49
Group 2-Semi-Finished Goods	280776.68	69.25		-13.07	-12.12	55.93
Group 3-End Products	228306.72	105.07		-22.16	-36.09	53.19
Total Exports	845704.34	74.65	-13.91	-8.55	-10.68	57.80
Market Effect Computed First						
Total Exports	845704.34	74.65	-11.23	-10.62	-10.60	57.80
Weights Using Average of Shares In 1966-70 and in 1971-74						
Commodity Effect Computed First						
Group 1-Raw Materials	336544.70	27.11		.69	9.70	62.49
Group 2-Semi-Finished Goods	280954.90	63.47		-10.00	-9.36	55.93
Group 3-End Products	228307.84	92.93		-16.04	-30.08	53.19
Market Effect Computed First	845807.44	88.45	-31.50	-7.38	-7.37	57.80
Total Exports	845807.44	88.45	-29.63	-9.24	-7.37	57.80
Weights Using Shares in 1971-74						
Commodity Effect Computed First						
Group 1-Raw Materials	336468.46	29.14		-3.09	11.43	62.49
Group 2-Semi-Finished Goods	281133.13	57.70		-6.95	-6.61	55.93
Group 3-End Products	228308.96	80.80		-9.92	-24.07	53.19
Total Exports	845910.55	102.25	-49.68	-6.22	-4.14	57.80
Market Effect Computed First						
Total Exports	845910.55	102.25	-48.02	-7.87	-4.14	57.80

in exports. In contrast, after accounting for a positive "price effect," the "market effect" and the "competitive effect" are both negative. Thus, Canada's exports of these types of products have been going to slow growing markets in the developing world. Furthermore, even in these slow growing markets, Canada has been unable to keep its 1966-70 share of total developed world exports.

In the case of Canada's total exports to LDC's, the actual change in exports is an increase of 845.3 million dollars. Using initial period weights, this actual change can be decomposed in an increase of 631.3 million dollars, which is accounted for by the

"world growth effect," a decrease of 112.6 million dollars, Canada's total exports being more concentrated on commodities whose trade growth is at a rate lower than the average for total exports. A decrease of 72.3 million dollars can be accounted for by the "market effect," an increase of 488.8 million dollars by the "price effect" can be attributed to the "competitive effect."

In the fifth line of this table, the constant market share decomposition is computed with the "market effect" computed first. Comparing the fourth and fifth lines of this table, we conclude that the results are fairly insensitive to the order of the computations. In the second panel of Table 6, we repeat all our computation, using as weights the average of the 1966-70 and the 1971-74 weights. Finally, in the panel we use, as weights, the shares in the final period (that of 1971-74). The results do show some sensitivity to the choice of weights, however, the major tendencies are not changed.

To summarize in accounting for Canada's export growth, we observe three salient characteristics:

1) Independently of the weights chosen and the order of the computations only the "world growth effect" and the "price effect" are always positive.

2) After accounting for price changes, if Canada had been able to keep its 1966-70 share in MDC's exports to the LDC's world, its exports to LDC's in the period 1971-74 should have been, on an annual average, 275.1 million dollars higher than they were. That is, Canada's exports to the LDC world have grown less than the MDC's exports to the LDC world.

3) Canada's exports to LDC's have been concentrated in commodities whose markets in the LDC world have grown relatively slow. Also, Canada's exports to LDC's have been concentrated in regional markets that have experienced relatively slow growth in the period considered. Finally, the negative competitive effect reflects a failure of Canada to maintain its LDC market share in individual commodities and regions.

III. Conclusions

Exports to LDCs are far less important to Canada than to other

developed countries, and this share has not grown despite a rapid expansion of LDC markets in the decade 1965-1975. Thus, it appears that Canada has been exploiting the potential LDC markets far less than other industrialized countries. The commodity composition of Canada's export basket to LDCs further evinces a hint of this exploitation: manufactured goods account for about 58% of such exports in the period 1971-75, only slightly higher than the 54% weight in exports to advanced countries. That Canada should continue to export large volumes of natural resources is to be expected, but that it has been unable to increase the relative importance of manufactures in exports to LDCs with far lower capital endowments than its own, suggests an inability to exploit its comparative advantage in such markets.

The dynamic effects summarized by a market-share analysis solidify the above conclusions. One finds that export expansion's predominant influences are the world growth effect and price effect, with market effects, commodity composition effect and competitive effects having negative values. In other words, Canadian exports are growing largely because of the growth in the market for exports to less developed countries, and to a lesser extent because the prices of these export goods have increased. Negative values for the market effect and commodity composition effects in the analysis mean that Canada's export links have continued to be with the slowest growing LDC markets for developed country exports, and have been concentrated in commodities with the lowest growth in trade. The negative value for competitive effect points to a declining ability of Canadian exports to compete in developing country markets. This result is consistent with our finding of a declining share of manufactured products in the basket of exports to developing countries. Thus, in the manufactured goods which have been growing fastest in world trade, Canada has fared least well. Even in trade with the Third World whose endowments of capital and skills are far lower, Canada has not been able to increase the exports of highly processed manufactured goods, and retains the characteristics historically described as being "hewers of wood and drawers of water."

Thus it does not appear that Canada has been successful in exploiting growing markets for its exports to developing countries. Closer investigation is required to determine the reasons for this, which will be in two broad categories: these markets were highly protected by developing country policies such as import-substitution; or Canadian sellers (private firms and government

promoters) were insufficiently dynamic in taking advantage of these new opportunities. If the first reason is predominant, this will unfortunately provide support for the arguments against the New Economic Order. If on the other hand the second factor shows itself more significant, this will give a hollow ring to the cries in Canada (and elsewhere) for protection against the flood of cheap imports from the Third World.

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