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MINOR COLOMBIAN MERCHANDISE EXPORTS*

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Chapter 3

Minor Colombian Merchandise Exports*

Chapter I discussed briefly the different behavior of "traditional" or major (coffee and crude petroleum) and "non-traditional" or minor Colombian merchandise exports since 1948. It was also noted that given the limited growth possibilities for coffee and oil exports, especially since the mid-nineteen fifties, the expansion of minor exports has been a key policy target. This chapter will explore the commodity composition of minor exports, their geographical destination, as well as other characteristics, hoping to draw up a typology of these very heterogeneous commodities. An attempt will be made to explain why the efforts to expand and diversify Colombian exports has been, on the whole, rather successful. Such an attempt will build on the substantial work of other authors.[1] Ideally one would like to account for the annual growth rate of about ten percent per annum in registered minor exports between 1950-51-52 and 1968-69-70, as well as for deviations around that trend. The chapter will close with a discussion of the outlook for non-traditional exports, and with an evaluation of the role minor exports can be expected to play in achieving Colombian growth, employment and distributional targets.

An Overall View

It may be seen from Table III-1 that during 1950-51-52 coffee represented 77 percent of Colombia's (non-contraband) merchandise exports, with crude petroleum accounting for an additional 15 percent. These figures were about unchanged for 1957-58-59. By 1968-69-70, however, the residual category, minor registered exports, had reached 31 percent, while the coffee share had slipped to 61 percent. Indeed, the expansion in the dollar value of minor exports between 1957-58-59 and 1968-69-70 accounts for more than the

Table III-1

Colombian Merchandise Exports, f.o.b.

(Million Current U.S. Dollars; Trade Returns)

	Total Registered Merchandise Exports	Registered Coffee	Registered Crude Petroleum	Registered "Minor" Exports	Non-Registered Merchandise Exports
1950	393.6	306.3	64.5	22.8	n.a.
1951	483.8	359.4	73.5	50.9	n.a.
1952	483.0	379.9	71.5	31.6	n.a.
1953	605.5	492.3	76.3	36.9	n.a.
1954	669.1	550.2	75.8	43.1	2.4
1955	596.7	487.4	61.5	47.8	8.6
1956	551.6	413.1	69.9	68.6	70.6
1957	511.1	388.8	76.3	46.0	78.8
1958	460.7	354.5	66.6	39.6	66.4
1959	473.0	361.2	73.3	38.5	69.0
1960	464.6	332.3	80.0	52.3	55.0
1961	434.5	308.0	68.2	58.2	35.0
1962	463.4	332.2	60.6	70.6	35.0
1963	446.7	303.1	77.2	66.3	25.0
1964	548.1	394.4	75.0	78.8	35.0
1965	539.1	344.0	88.2	107.0	40.0
1966	507.6	328.3	71.7	107.6	42.0
1967	509.9	322.4	61.2	126.3	43.0
1968	558.2	351.5	36.3	170.3	40.0
1969	607.5	343.9	56.7	206.9	43.0
1970	731.6	466.9	58.6	206.1	59.0
1971		399.1	51.2		

Sources and Method: IMF-IFS and IMF-BOPY. Note that the latter publication also corrects for timing and valuation when translating coffee exports, as shown in trade returns, into those presented in the Balance of Payments. The timing correction arises from changes in coffee stocks held abroad by Colombian institutions.

growth in total registered exports between those two dates, as the very slight increase in coffee exports was insufficient to compensate the decline in crude petroleum exports. The average annual growth rate in the value of registered minor exports, which was a meagre 2.4 percent between 1950-51-52 and 1957-58-59, rose to an impressive 15.1 percent between the latter date and 1968-69-70.

A glance at Table III-1 will show that the expansion of registered minor exports has been far from steady. The point emerges more clearly from the following tabulation, indicating the number of years which registered the year-to-year percentage changes shown:

Year-to-year percentage change in value of registered minor exports of:	Whole Period	1951 through 1960	1961 through 1970
More than 40 percent	2	2	0
From 20 to 40 percent	5	1	4
From 10 to 20 percent	6	3	3
From 0 to 10 percent	1	0	1
From -10 to 0 percent	3	1	2
Less than -10 percent	3	3	0
	20 years	10 years	10 years

While the diversification and bigger base of minor exports during the 1960's yielded less desparate year-to-year changes in their total value, a considerable spread remained. During that more recent period one may note three major export surges, preceded and followed by absolute declines or stagnation in the export level: those of 1960 through 1962; 1964-65 and, the most impressive of all, 1967 through 1969.

The ample opportunities which Colombian geography provides for inward smuggling activities were noted in Chapter II. Overvalued exchange rates, export taxes and prohibitions, as well as export quotas on some commodities (such as coffee) and old-fashioned criminal activities (as with emeralds)

have provided the incentives for outward smuggling, or non-registered merchandise exports. It is common knowledge that considerable amounts of cattle, textiles, coffee and other goods cross every year, unregistered, from Colombia to Venezuela and Ecuador. Colombian emeralds find their way to European markets in mysterious, unregistered ways. Estimates of the value of such trade are naturally gross; unusual external events, such as the Venezuelan boom of 1956-58, as well as changes in domestic policies lead to variations in the level of smuggling, but only the rough outlines of those fluctuations have been estimated. The last column of Table III-1 presents the most reputable of those calculations, covering all commodities. According to those figures, non-registered exports reached 14 percent of the value of registered exports during 1956 through 1960, and declined to 7 percent during 1968-69-70.

Most non-registered exports can be classified as minor, as may be seen in the last column of Table III-2. Thus, during 1957 through 1959 more minor exports seem to have left Colombia unregistered than registered. While not too much weight should be placed on the smuggling estimates, it does appear that a small part of the expansion in registered minor exports observed between 1957-58-59 and 1968-69-70 took place at the expense of smuggling. Adding up registered and unregistered minor exports, one obtains growth rates of 15.8 percent per annum between 1950-51-52 and 1957-58-59, and of 8.2 percent per annum between 1957-58-59 and 1968-69-70. This latter growth rate, while not as spectacular as the 15.1 percent per annum obtained for just registered minor exports, is still remarkable. In particular, while the surge observed for registered minor exports during 1960 through 1962 may represent to an important extent the replacement of smuggling for legal

Table III-2

Colombian Minor Exports, f.o.b.

(Million Current U.S. Dollars)

	Registered Tobacco, Sugar, Cotton and Fresh Fruit (mainly Bananas)		Registered Other Minor Exports		Non-Registered Minor Exports
	Non-LAFTA Countries	LAFTA Countries	Non-LAFTA Countries	LAFTA Countries	
1950	----------10.6---------		-------12.2-----		n.a.
1951	----------10.8---------		-------40.1-----		n.a.
1952	----------10.9---------		-------20.7-----		n.a.
1953	----------14.1---------		-------22.8-----		n.a.
1954	----------15.7---------		-------27.4-----		2.4
1955	----------19.0---------		-------28.8-----		8.6
1956	----------31.7---------		-------36.9-----		16.0
1957	29.4	---	11.5	5.2	60.0
1958	17.5	---	18.2	4.0	55,0
1959	15.9	---	18.8	3.8	55.0
1960	28.8	---	17.9	5.6	45.0
1961	33.0	0.9	18.1	6.2	25.0
1962	38.6	0.9	24.5	6.6	25.0
1963	34.3	1.1	25.6	5.4	15.0
1964	31.1	0.4	37.1	10.2	25.0
1965	41.5	0.2	48.1	17.2	12.0
1966	36.8	0.2	44.7	25.9	13.0
1967	57.1	0.7	48.7	19.8	28.0
1968	68.0	5.6	72.0	24.7	30.0
1969	73.5	2.1	96.7	34.6	33.0
1970					53.0

Sources and Method: Basic data obtained from DANE-ADCE, several issues, and UN-FAO-TY, also several issues.

exports, post-1963 advances cannot be questioned on those grounds. The combined series for all minor exports shows an average annual growth rate of 18 percent between 1963 and 1970.

Types of Minor Exports

Colombian minor exports are made up by a diversified list of commodities. The five major items in that list during 1969 (cotton, bananas, sugar, fuel-oil and cotton textiles) accounted for less than half of registered minor exports. Furthermore, during the 1960's new items were constantly added to the list, which by now includes such various products as gold, paper and cardboard, meat, tobacco, wood, shoes, seafood, glass, oilseed cakes, chemicals, furs, cement, hides, precious stones, tires, books, flowers and dog toys. Note that many minor exports are hardly "non-traditional"; Colombia has been exporting tobacco, for example, since she was a Spanish colony.

There are a priori reasons to suspect that some types of minor exports are likely to have different domestic supply price-elasticities than others. Factor proportions as well as foreign demand income-elasticities are also likely to differ sharply between, say, cement and flowers. Data needed to classify minor exports according to those different criteria are not yet available, so somewhat looser but more convenient classificatory schemes will be pursued.

One such scheme (among the many possible) can be derived from Tables III-2 and III-3, and is summarized as follows:

	Share in Registered Minor Exports		Average Annual Growth Rate 1957-58-59/ 1967-68-69
	1957-58-59	1967-68-69	
Bananas, cotton, sugar, tobacco	50.6%	41.1%	12.7%
Manufactured goods	34.2	43.3	17.8
Minor/minor	15.2	15.6	15.4
Total	100.0%	100.0%	15.0%

Four important primary products still account for more than forty percent of registered minor exports; it is remarkable that, in spite of their being labelled primary products, their dollar value grew at an impressive annual rate. Both manufactured goods and the residual, minor/minor, category are far from homogeneous groups; a closer look at each of the three sub-groups is in order.

Bananas, Cotton, Sugar and Tobacco (BCST)

It is sometimes asserted that before a developing country can expand its exports and diversify away from its traditional staple, it must go through a process of import-substituting industrialization. Clearly industrialization was not a precondition for expanding Colombian BCST exports from annual levels of $11 Million during 1950-51-52 to $21 Million during 1957-58-59 and $69 Million for 1967-68-69. The expansion of BCST exports between the last two dates accounted for 38 percent of the total increase in registered minor exports; cotton, by itself, is responsible for 20 percent of that expansion, with sugar providing another 12 percent. Import substitution in bananas, sugar or tobacco was not a preliminary step to exporting; for cotton, however, the story is different, as it will be seen below.

Comparative advantage for these four commodities is rooted in the availability of Colombian natural resources, working within a certain range

Table III-3

Registered Minor Colombian Merchandise Exports, f.o.b., according to SITC (Revised)

(Million Current U.S. Dollars)

	1969	1968	1967	1966	1965	1964	1963	1962	1961	1960	1959	1958	1957
0 Food and live animals, excl. coffee	63.1	53.5	45.3	41.3	40.1	18.6	22.4	20.9	21.1	15.4	15.5	16.1	26.9
051 Fresh fruits and nuts (bananas)	19.9	24.7	25.0	20.0	18.6	12.4	13.3	10.7	14.1	13.7	13.9	15.5	26.2
061 Sugar and honey	15.6	15.9	12.9	9.1	7.8	3.3	5.5	7.4	5.2	0	0	0	0.3
--- Other	27.6	12.9	7.4	12.2	13.7	2.9	3.6	2.8	1.8	1.7	1.6	0.6	0.4
1 Beverages and tobacco	7.3	4.9	4.4	5.6	7.2	9.5	7.3	5.7	4.1	2.4	2.0	2.0	2.9
12.1 Tobacco, unmanufactured	7.3	4.9	4.4	5.6	7.2	9.4	7.2	5.7	4.0	2.4	2.0	2.0	2.9
---Other	0	0	0	0	0	0.1	0.1	0	0.1	0	0	0	0
2 Crude materials, inedible, excl. fuels	45.9	38.7	21.6	8.4	15.7	13.2	13.9	19.2	13.9	15.8	2.8	2.6	3.2
26.3 Cotton	32.8	28.1	15.5	2.3	8.1	6.4	9.5	15.8	10.6	12.7	0	0	0
---Others	13.1	10.6	6.1	6.1	7.6	6.8	4.4	3.4	3.3	3.1	2.8	2.6	3.2
3 Mineral fuels, lubricants, etc. excl. Crude Petroleum	20.3	14.4	13.5	9.7	7.9	7.9	4.6	7.4	6.0	7.8	8.9	10.1	5.0
4 Animal and vegetable oils and fats	0	0	0	0	0	0	0	0.1	0	0	0	0	0
5 Chemicals	10.0	8.6	4.7	6.6	6.1	4.4	2.4	2.7	1.4	1.3	1.0	1.0	0.8
6 Manufactured goods classified by mat.	49.1	40.9	31.4	30.2	24.1	19.6	11.3	10.0	6.3	3.4	4.4	3.9	4.0
7 Machinery and transport equipment	5.1	4.2	3.4	3.6	2.0	1.9	1.7	1.1	2.0	2.1	1.0	0.5	0.8
8 Miscellaneous manufactured articles	5.5	4.6	1.8	2.2	2.6	1.8	0.8	0.5	0.4	0.2	0.3	0.3	0.5
9 Commodities and Trans., n.e.s.	0.6	0.6	0.1	0	1.0	1.9	2.1	3.1	3.2	3.9	2.6	3.2	1.9
Total	206.9	170.3	126.3	107.6	107.0	78.8	66.3	70.6	58.2	52.3	38.5	39.6	46.0
--Fruits, Sugar, Tobacco, Cotton	75.6	73.6	57.8	37.0	41.7	31.5	35.5	39.6	33.9	28.8	15.9	17.5	29.4
--Manufactured goods (3, 5, 6, 7, plus 8)	90.6	72.7	54.8	52.3	42.7	35.6	20.8	21.7	16.1	14.8	15.6	15.8	11.1
--Other (Minor/minor)	40.7	24.0	13.7	18.3	22.6	11.7	10.0	9.3	8.2	8.7	7.0	6.3	5.5

Sources and Method: Basic data obtained from DANE-ADCE, several issues, and UN-YOITS, several issues.

for labor and transport costs. By themselves, of course, these factors do not explain the level of BCST exports actually achieved during the post-war, nor their growth rate.

The relative homogeneity of the BCST group allows us to develop, besides dollar value time series, both export quantum and unit value series. These are presented in Table III-4. These figures show that the rapid growth in the dollar value of BCST exports between 1957-58-59 and 1967-68-69 was based on quantum expansion (averaging 16.5 percent per annum), with unit dollar prices declining between those two dates. It can also be seen that during the same interval, domestic output of these crops grew at a significantly lower than the export quantum (8.8 percent vs. 16.5 percent).

The evolution of the BCST export unit value presents some interesting characteristics. One may note, first of all, its instability. For the years 1957 through 1969, that price instability has been greater than that for coffee; the average year-to-year change in coffee prices (disregarding signs) was 7.5 percent, while that for BCST unit value was 10.3 percent. During the difficult 1957-58-59 years, both coffee and BCST plunged, and the crisis of the second half of 1966 was aggravated by the simultaneous deterioration of coffee and BCST prices. (It will be seen in a later chapter that 1966 Colombian authorities argued that such exogenous price decline should not be allowed to influence exchange rate policy. Foreign creditors tended to ignore this point and pressed their advantage.) On the whole, however, and fortunately for Colombia, the correlation coefficient between dollar coffee prices and the BCST export unit value is not strong (a positive R of 0.44), at least for 1957 through 1969. It may be too much to expect that diversification will

Table III-4

Value, Quantum, Price and Production Indices for

Bananas, Cotton, Sugar and Tobacco (BCST)

(Averages for 1957-69 = 100)

	Export Dollar Value	Export Quantum	Export Unit Value	Quantum of Domestic Production
1950	26.6	na	na	35.7
1951	27.1	na	na	38.4
1952	27.4	na	na	39.5
1953	35.4	na	na	51.5
1954	39.4	na	na	59.7
1955	47.7	na	na	60.2
1956	79.6	na	na	61.6
1957	73.7	40.8	180.6	54.7
1958	43.9	37.0	118.8	57.8
1959	39.9	42.8	93.3	81.7
1960	72.3	75.0	96.5	87.4
1961	85.2	90.6	94.1	90.8
1962	99.3	88.2	112.5	90.4
1963	88.8	83.3	106.6	91.4
1964	79.1	73.7	107.3	84.7
1965	104.7	101.4	103.3	95.3
1966	92.9	109.7	84.6	115.8
1967	145.2	161.2	90.1	132.9
1968	185.1	202.6	91.3	160.2
1969	189.9	193.8	98.0	156.9

Sources and Method: Export quantum and value data for each of the commodities obtained from DANE-ADCE, several issues. Domestic output for each of the commodities obtained from BdlR-CN. The composite index for the whole group was obtained by using the following weights, based on the share of each of the commodities in their total export value (in dollars) during 1957 through 1969:

Bananas (fruit)	44.04%
Cotton	27.40
Sugar	16.02
Tobacco	12.54

Table III-4 (continued)

The same weights were used to obtain the export and domestic production quantum indices. The export unit value index was obtained using the export value and quantum indices. The method of calculating the export quantum neglects to take into account possible quality changes in the four products.

It should be noted that the contributions of each of the four crops to the increase in BCST exports between 1957-58-59 and 1967-68-69 was quite different from their participation in total exports during 1957 through 1969. Their contributions to that increment were as follows:

Bananas (fruit)	9.8%
Cotton	53.0
Sugar	30.6
Tobacco	6.6

take place in commodities whose prices are negatively correlated; at least Colombia has moved into other primary products which don't systematically follow the gyrations of coffee markets.

For BCST, exports represent an important outlet for domestic production, yet those exports account for a very small share in total world exports of those commodities. The following tabulation shows those relations circa 1965-69:[2]

	Exports as % of Domestic Production	Colombian Exports as % of World Exports
Bananas	90.1	6.2
Cotton	31.3	0.8
Sugar	22.5	0.8
Tobacco	26.9	1.2

The share of production exported every year has fluctuated considerably, particularly for cotton and sugar. As supplying the local market receives first priority, exports bear the brunt of poor crops (which have triggered export prohibitions in some cases) and become the key outlet for bountiful ones. In the case of bananas, output has been particularly vulnerable to pests and hurricanes, but the other three crops also show the fluctuations associated with primary production.

The small shares which Colombian BCST exports have in world markets do not necessarily imply very high price elasticities in the foreign demand for those goods. For one thing, bananas, cotton, sugar and tobacco are hardly homogeneous products. (Colombian tobacco is far from a perfect substitute for the Cuban leaf, for example.) Secondly, "the world market" is a fragmented one, and exports to country A may not be substituted by exports to country B. The clearest example of this is the sugar market, in which Colombia is subject to export quotas generated by the U.S. as well as by the International Sugar Agreement, and faces discriminatory barriers in European and other countries.

It should also be noted that the Colombian market shares, though small, have been tending to grow, and that part of such expansion is due to peculiar once-and-for-all events (the blockade against Cuba, for example). Nevertheless, while foreign demand may not be perfectly price-elastic for BCST, the small Colombian market shares do provide support to the view that during the period under study Colombia has faced a rather price-elastic foreign demand and that at least for the next few years, given the likely increases in Colombian output, there is little ground for "elasticity-pessimism" regarding BCST exports. In circumstances under which a given commodity bumps one year against foreign-imposed (demand) quotas, and the next year is subject to export prohibitions and supply quotas, it is difficult to be more precise about the shape of the idealized foreign demand schedule.

One may add that BCST exports are placed almost wholly outside the LAFTA preferential trading bloc, as shown in Table III-2, in sharp contrast to the rest of registered minor exports. Therefore, they earn foreign exchange which is in an important sense more valuable than that earned from exports to LAFTA, under the reasonable assumptions that "reciprocity" will be more narrowly enforced within LAFTA, and that such commerce will involve some trade-diversion.

Another characteristic of the BCST group is that, besides receiving influences emanating from foreign trade policy, it has been very much the subject of special agricultural public policies, which regulate its internal prices, provide credit, etc. The case of cotton is perhaps the most dramatic example of the pay-off to such ad-hoc, crop-specific programs. As shown in Table III-5, Colombia passed from being a net importer to a net exporter

Table III-5

Cotton in Colombia

(Thousand Metric Tons; Annual Averages)

	Production	Imports	Exports	Apparent Domestic Consumption
1948-52	8	17	0	25
1953-55	25	8	0	33
1958-59	50	9	0	59
1960-61	73	1	20	54
1962-65	71	4	18	57
1966-69	109	2	35	76

Sources and Method: UN-FAO-PY and UN-FAO-TY, several issues.

of that commodity within a short period of time. During the 1950's cotton growers (mainly large scale growers, it may be noted) received generous credit and price support from an institute designed exclusively to promote that crop. Since then, such policies have continued, raising not only output, but also yields. Sugar and bananas have also benefitted greatly from special public credit programs.

The production of BCST crops is overwhelmingly in Colombian hands. Foreign ownership in the production of bananas existed until a few years ago; now the foreign participation is limited to the marketing of that product. In cotton, sugar and tobacco both production and marketing, as in the case of coffee (but not oil), is almost wholly Colombian. The expansion of BCST exports, therefore, can hardly be credited to any special foreign presence in producing or selling those commodities.

The BCST crops are grown at several points well spread out within Colombia; for example, sugar comes mainly from the Cauca valley, bananas from the gulf of Urabá, while cotton is increasingly grown in the Atlantic coast.

Manufactured Exports

Colombian manufactured exports have gone from an annual average of $14 Million during 1957-58-59 to $73 Million during 1967-68-69. That expansion accounted for 46 percent of the total growth in registered minor exports between those two dates. It would be a mistake to assume that all of these exports are made up of labor-intensive commodities; the list includes not only cotton textiles, shoes and near-handicrafts, but also fuel-oil, chemicals and cement. As it will be seen below, some aspects of Colombian export promotion policy may in fact encourage the latter type more than the former.

Table III-3 presented a list of manufactured exports, which can be expanded for the years 1964 through 1968 as follows:

	Annual Averages: Million U.S. Dollars	
SITC Classification	1967-68	1964-65-66
3 Petroleum products	14.0	8.5
5 Chemicals	6.7	5.7
6.1 Leather manufactures	3.0	3.4
6.29 Rubber manufactures	1.6	2.6
6.4 Paper manufactures	9.3	2.6
6.5 Textile manufactures	8.2	9.0
6.6 Non-metallic manufactures	7.6	3.8
6.8 Non-ferrous metals	3.6	1.0
6.9 Manufactures of metals nes	1.7	1.0
--Other manufactures classified by materials	1.2	1.0
7 Machinery and transport equipment	3.8	2.7
8 Miscellaneous manufactured articles	3.2	2.3
Total	63.8	43.5

The diversity of Colombian manufactured exports should be apparent from these figures. Given this heterogeneity, it is difficult to obtain export quantum and unit value indices, as it was done in the case of BCST.

A rough analytical classification of all manufactured exports could be as follows:

(a) Those which involve some slight processing of primary products (These are mostly included under SITC categories 0, 1, and 2, so they are excluded from our definition of "manufactures". Examples are refined sugar, oil seed cakes, etc.).

(b) Capital-intensive commodities, sold sporadically in competitive world markets. These are exports designed to use up planned or unplanned excess capacity, sold at marginal cost ("dumping"), by plants whose output is, over the long run, expected to go mainly (say 95% and above) to the local market. Examples are exports of some chemicals and petroleum products.

(c) Capital-intensive commodities, whose plants have been designed to sell a good share of their output (say 5 to 30%) within the Latin American Free Trade Association, taking advantage of tariff preferences. This category is expected to gain in importance. Examples are petrochemicals and automobile parts.

(d) Labor-intensive commodities, or parts of final products, sold at world prices.

This classification, of course, could be further refined. Sporadic capital-intensive exports can go to LAFTA as well as to world markets. Labor-intensive commodities may be sold from plants totally or partially devoted to the export market (the former are still rare). The line between "labor-intensive" and other goods or processes is far from a clear one, nor is the line between manufactures and primary products a sharp one. To give one example combining both ambiguities: exports of cotton textiles ("manufactures") are, in value, about half raw cotton ("primary product"), and it is not clear whether the cotton spinning and weaving is more or less labor intensive than the growing of cotton. Finally, some exports of manufactures are close complements of primary product exports; this is the case of the cardboard exported as banana boxes. Others, although capital-intensive, may exploit locational advantages, as in the case of cement exports from the Colombian Atlantic coast.

It is not possible, at this stage, to classify Colombian manufactured exports according to the categories outlined above. But the discussion at least should alert us to the possibility of policy-induced "Leontief paradoxes". In particular, one may put forth the conjecture that manufactured exports to LAFTA are likely to be more capital-intensive than those to the rest of the world.

Colombian manufactured exports represent a very small fraction of both domestic manufactured production, and of world trade in manufactured goods. With few exceptions, local plants seldom have planned to export, as a regular business, more than 10 percent of their output. Some enterprises are cautiously moving into higher ranges (textiles, for example), and there are a handful of small plants which ship abroad 100 percent of their production (e.g., some leather-processing near-handicrafts, and clothing plants located in the Barranquilla bonded free trade facilities). There are few manufactures for which Colombian exports have more than a tiny fraction of world trade; nevertheless, in textiles Colombia faces U.S. import quotas, and in cement Colombian exports have some influence within the Caribbean and Gulf of Mexico markets. On the whole, it appears that Colombia has just begun to tap foreign market possibilities for her manufactures, both inside and outside the LAFTA region. "Elasticity-pessimism" seems even less justified for manufactures than for BCST exports.

Comparing Tables III-2 (fourth column) with total manufactured exports, it may be seen that LAFTA accounted, at most, for 39 percent of Colombian manufactured exports during 1965-69. (The actual percentage will be somewhat lower, as not all "minor/minor" exports went to non-LAFTA destinations). As suggested earlier, LAFTA takes a larger share of Colombian exports such as rubber tires, pharmaceuticals, machinery and transport equipment, plastics, etc., which appear to be capital- and/or import-intensive (the reason for the latter will be seen below). On the other hand, cotton textiles and leather manufactures are primarily sold to the rest of the world. During 1969

for example, the LAFTA share was as indicated in the following types of manufactured exports:[3]

SITC Classification		LAFTA Share	Value of All Exports (Million U.S. dollars
513 and 514	Inorganic Chemicals	67%	$2.63
541	Medical and Pharmaceutical Products	77	3.24
581	Plastics	95	1.30
599	Other Chemicals, nes	58	1.25
612	Leather manufactures, nes	5	0.38
629	Rubber Products	74	1.02
631 and 632	Wood Manufactures	nil	1.44
651, 652 and 653	Textiles	15	12.25

Since around 1956, and first motivated by a desire to use industrial excess capacity, the import content of certain exports, mainly manufactured goods, has been exempted (ex-ante) from import duties, previous deposits, consular fees and the need to obtain previous import licenses, subject to some stringent conditions. These now include: the signature of an ad-hoc contract with the government specifying clearly the export goods, proof that the imports are being financed according to Law 444, depositing with customs a guarantee (from a bank or an insurance company) amounting to twice the corresponding import duties, a guarantee that those imports which have not been used and are on the prohibited list will be re-exported, a commitment to carry a special set of accounting books for these contracts, etc. Not surprisingly, the major (but not exclusive) users of this "Plan Vallejo", as it is known in Colombia since 1959, have been large manufacturing firms. More general "drawback" (ex-post) systems are also allowed in principle by Law 444 and its predecessors, but have not been implemented in practice, with the exception of the "Plan Vallejo Jr." or "reposition" provision, which since 1964 allows exporters which had used imported inputs and had paid

duties on them, to import the same quantity and quality of merchandise free of duties, previous deposits and of the requirement of obtaining a previous license.

It may be seen in Table III-6 that a vigorous implementation of the "Plan Vallejo" can be dated starting around 1962, after the system was reformed in 1959. During recent years (1967 through 1970), "Plan Vallejo" exports have accounted for about 30 percent of all minor exports, and a dominant share of manufactured exports.

The import content (which includes machinery as well as raw materials) of these exports is substantial, and exceeds the average import content of all Colombian industry, estimated at around 13 percent.[4] The alert reader will have noted that the joint impact of CAT, discussed in Chapter I, plus the "Plan Vallejo" can have not only a significant incentive effect, far exceeding the sum of the impacts of each scheme in isolation, but also one biased in favor of import-intensive exports. Take a simple example of an activity with an import content of 40 percent. Taking into account the tax-exempt nature of the CAT, but also its one year discount, but neglecting the transaction costs involved in using the "Plan Vallejo", one can estimate the "effective protection" for exports of that activity as follows:

1)	Assumed world sales price	$100
2)	Plus net CAT (about 18 percent)	118
3)	Minus world purchases; equals value added at domestic prices	78
4)	Value added at world prices	60
5)	"Effective protection"	30%

Table III-6

Exports and Imports under "Plan Vallejo"

(Million Current US Dollars)

	Imports	Exports	Imports as % of Exports
1960	0.10	0.06	43.3
1961	0.20	0.18	
1962	0.17	0.84	
1963	2.22	5.80	38.3
1964	5.08	12.87	39.5
1965	9.83	26.19	37.5
1966	12.06	41.69	28.9
1967	16.97	40.79	41.6
1968	17.86	51.95	34.4
1969	13.65	62.80	21.7
1970	26.38	64.58	40.8

Source: INCOMEX (Instituto Colombiano de Comercio Exterior), "Análisis Sobre el Desarrollo de los Sistemas Especiales de Importación-Exportación", July, 1971. Imports include both raw materials and machinery.

This "effective protection" of 30 percent may be compared with that which would result if neither CAT nor Plan Vallejo existed, and if the average domestic price for imported inputs were raised by import restrictions 30 percent above the world market price. In that case, the "effective protection" would be minus 20 percent, or a swing of 50 percentage points. Clearly, activities with lower import components will receive lower "effective protection" for their exports, and their swing would be less, ceteris paribus.

Whether the effective protection applicable to manufactured exports is higher or lower than those which can be calculated for the share of the output which these activities sell in the domestic market will, of course, depend on the corresponding domestic prices for output and inputs (both reflecting import restrictions without exemptions).

Table III-7 presents some (partial) estimates of the differential incentives given for a sample of 105 manufactured products, depending on whether they are sold within Colombia or exported, and on whether the several export incentive schemes are taken into account. On the import side, however, these estimates only consider tariffs, assuming that they equal the difference between domestic and foreign prices. This is, of course, not true for many products, either because the tariff contains "water", or because of import controls. So the Table serves primarily to illustrate (very rough) orders of magnitude for the differences among columns for the same product, rather than differences in treatment among products in the same column. The third column takes into account the CAT, adjusted for tax exemption, and the 'Plan Vallejo".

Table III-7

Effective Protection Yielded by Tariffs and Export Promotion Schemes, circa 1970, for 105 Products

(Percentages)

	For Sales in Colombia	For Exports, without Promotion Schemes	For Exports, with Promotion Schemes
Foodstuffs, tobacco and beverages (8)	198	-91	43
Textiles (5)	267	-34	43
Clothing (7)	387	-52	40
Wood and wood products (6)	120	-71	38
Paper and paper products (7)	133	-67	47
Printing and publishing (3)	79	- 7	27
Leather and leather products (6)	203	-149	58
Rubber and rubber products (2)	59	-36	47
Chemicals and petrochemicals (14)	49	-27	37
Stone, earth and clay products (7)	97	- 9	25
Metals and metal products (19)	101	-39	40
Non-electrical tools and machinery (6)	33	-17	27
Electrical products and machinery (4)	57	-52	52
Transport equipment (6)	59	-30	38
Others (5)	149	-48	42
Total (105)	130	-48	39

Sources and method: Data summarized from unpublished calculations of Mr. Gonzalo Giraldo, of the Planning Department of Colombia. The sample of 105 manufactured products was selected as actual or potential exports within the Andean Common Market, of which Colombia is a member. In the calculation of effective protection only tariffs and export promotion schemes were taken into account (see text). Input coefficients actually observed in Colombia were used; imports of capital goods were excluded. A net CAT of 20% was assumed, a figure which may be regarded as a bit high. Special regimes exempting some imports of duties were neglected for this calculation.

It may be seen that while the export promotion schemes have not equalized the tariff-intended "effective protection" between exports and domestic sales, they have narrowed the gap relative to a stiuation without export promotion schemes. Indeed, in the sample of 105 products, there were 18 of them for which the last column was higher than the first. The table again shows that the combined effect of a CAT based on sales value, plus exemption of duties on imported inputs can be quite powerful, in many cases clearly offsetting the negative effect of peso overvaluation on the peso prices of exports relative to home goods, even when those prices remain unfavorable compared with those of import competing goods.[5]

Although the combined effect of CAT plus "Plan Vallejo" does discriminate among activities, the spread of the third column is smaller than that of the first. This indicates that variations in tariffs on outputs (and/or on finished products) is greater than those on inputs.

The incentive effects of CAT plus "Plan Vallejo" can reach extraordinary levels, quite possibly detrimental to the Colombian economy, in the case of exports to LAFTA. This can be shown going back to the simple example presented earlier. Suppose, in addition to the assumptions already made, that Colombian exports placed within LAFTA are sold at prices 50 percent above world prices. The calculation of "effective protection", inclusive of LAFTA margins, would now be as follows:

1)	Assumed LAFTA price	$150
2)	Plus net CAT (18 percent)	177
3)	Minus world purchases; equals value added at Colombian prices	137
4)	Value added at world prices	60
5)	"Effective protection", including LAFTA	128%

In other words, if LAFTA protective margins are similar to those Colombia applies vis-a-vis the rest of the (non-LAFTA) world, Colombian producers may actually prefer to sell to LAFTA rather than to the domestic market, as the CAT-Plan Vallejo benefits could easily outweigh transport costs.

It should be emphasized at this point that not all "Plan Vallejo" exports go to LAFTA (and that not all "Plan Vallejo" exports involve manufactured goods). During 1967 through 1969, in fact, only 23 percent of "Plan Vallejo" exports went to LAFTA, amounting to less than 8 percent of all registered minor exports. The possibility of severe distortions in this area, however, bears watching.

As in the case of BCST exports, there are a number of policy instruments not directly linked with foreign trade which have been manipulated to stimulate and coax manufactured exports, including credit policy, and price controls. These will be discussed in another section.

The exact degree of participation of direct foreign investment in Colombian manufactured exports is not now known. Two great Colombian-owned corporations (COLTEJER and FABRICATO) dominate textile exports, and it appears that most firms exporting leather products are also Colombian owned. Foreign participation looms larger in chemicals, glass, rubber tires and paper. As of 1971, foreign-owned assembly-type operations hooked onto multinational businesses were rare. On the whole, the expansion of Colombian manufactured exports appears to owe little so far to the specific talents of export-oriented foreign investors.

As in the case of BCST crops, manufactured exports come from several points within Colombia. The geographical advantages of the Atlantic coast cities of Cartagena and Barranquilla, however, may make them dominant exporting centers if exporting continues to grow in importance in the planning of new industrial plants.

Minor/Minor Exports

Besides manufactured and BCST exports there is a residual category, made up mainly of primary products. It contains items, such as flowers, meat and lumber, with a remarkable growth potential, due to a combination of favorable world markets and a fairly elastic domestic supply. In some cases, as with meat and cattle on the hoof, border trade, or non-registered exports, have been important for many years. The diversified Colombian geography seems capable of generating a generous supply of a wide variety of these minor/minor exports, from live tropical fish and precious stones, to less exotic beans and shrimp, for which the Colombian share in world markets remains small. As a whole, this type of export appears to be Colombian-owned, small scale and relatively labor-intensive.

A Closer Look at the Customers for Colombian Exports

Besides the appearance of LAFTA, and of its sub-region, the Andean Common Market, there have been other significant changes during the 1960's in the importance of the different customers for Colombian exports. The United States share in all registered Colombian exports dropped from 70 percent during 1957-58 to 40 percent during 1967-68-69, while that for the (unenlarged) European Common Market rose from 13 to 24 percent between the same years. The absolute average annual dollar value of Colombian exports to the U.S., in fact, declined by a remarkable one-third between 1957-58 and 1967-68-69. The LAFTA share in all exports, in spite of a registered increase from 1 percent to 7 percent, remained modest.

Table III-8

Geographical Distribution of Colombian Exports

(Percentages of Total Registered Exports in each commodity category)

	1967-68-69				1957-58			
	Coffee	Oil	BCST	Non-BCST Minor	Coffee	Oil	BCST	Non-BCST Minor
United States	44.4	54.9	17.2	35.4	81.1	40.7	8.7	31.4
Canada	1.3	nil	0.6	3.1	1.8	nil	nil	0.5
United Kingdom	0.7	9.6	15.4	1.5	0.2	6.0	nil	13.9
Japan	1.5	nil	3.9	1.6	0.2	nil	nil	0.1
European Common Market	27.9	1.4	43.6	9.0	11.3	4.3	75.0	7.1
Other Industrial Western Europe	6.9	nil	4.8	3.7	3.4	0.2	14.4	0.2
Other Non-Soviet Europe	10.5	2.6	5.1	1.1	1.6	nil	nil	0.1
Andean Common Market	nil	8.5	2.7	16.7	nil	0.2	nil	13.9
Other LAFTA	1.1	nil	1.4	10.0	nil	1.0	nil	9.9
Central American Common Market	nil	nil	nil	4.2	nil	nil	0.1	6.1
Other Western Hemisphere	nil	23.0	0.7	12.5	nil	47.7	nil	16.9
Soviet Areas	5.5	nil	3.2	0.1	0.3	nil	0.1	nil
Others	0.2	nil	1.5	1.3	0.2	nil	1.7	nil

Sources and Method: IMF-DOT, several issues. The groupings of countries were slightly altered from the standard IMF-DOT categories.

The increased geographical diversification of Colombian exports has come about not only as a result of greater product diversification. It may be seen in Table III-8 that a marked diversification in markets for coffee occurred between 1957-58 and 1967-68-69, with the U.S. losing almost half of its still dominant share. A similar trend has been registered for BCST exports, with the European Common Market losing a large chunk of its leading share. In spite of large increases in their absolute level, the geographical spread in non-BCST minor exports changed surprisingly little between the two periods shown. Both the U.S. and the LAFTA shares rose, but not by much. European and Japanese markets for these non-traditional exports have remained on the whole flabby relative to their purchases of more traditional primary products (coffee and BCST).

These trends come out more clearly in Table III-9, which focuses on geographical shares of the net increments of annual exports between 1957-58 and 1967-68-69. Besides the changes already noted for all exports, the growing importance of the markets in "other non-Soviet Europe" (with Spain as the key country) and in "Soviet areas" are worth noting. In both cases the major export is coffee, sold under bilateral arrangements. Those arrangements, steadily but mildly criticized by the IMF, as well as by others, together with the LAFTA (and Andean) pacts, represented the major Colombian departures from multilateral rules of the game for trade. The bilateral pacts, of course, also limited the convertibility of export proceeds. By 1971 bilateral payments agreements had dwindled to those with the Democratic Republic of Germany, Hungary, Poland, Spain, Rumania, Bulgaria and Yugoslavia. In 1958 there were additional bilateral agreements with Denmark, Ecuador, Finland, France and Czechoslovakia.

Table III-9

Geographical Distribution of the Increment in the Average Annual Dollar Value of Exports between 1957-58 and 1967-68-69

(Percentages of Total Increment in Each Commodity Category)

	All Registered Exports	All Registered Minor Exports	BCST	Non-BCST Registered Minor Exports
United States	-155.4	31.0	21.6	36.3
Canada	1.8	2.7	0.9	3.7
United Kingdom	15.9	7.5	23.4	-1.6
Japan	11.7	3.4	5.8	2.0
European Common Market	96.9	16.0	27.5	9.4
Other Industrial Western Europe	19.3	2.9	-0.1	4.6
Other Non-Soviet Europe	49.2	3.6	7.7	1.3
Andean Common Market	27.5	12.5	4.0	17.4
Other LAFTA	16.4	7.1	2.2	10.0
Central American Common Market	4.1	2.4	-0.1	3.8
Other Western Hemisphere	-17.4	7.6	1.1	11.4
Soviet Areas	27.7	1.8	4.7	0.2
Others	2.4	1.5	1.4	1.6

Sources and Method: Basic data as in Table III-8.

The concentration of the expansion of non-BCST minor exports within the Americas emerges clearly from Table III-9. The share of that increase going to the sheltered LAFTA zone was 27 percent. The Caribbean and Central American areas, where Colombia has to meet without preferences competition from the rest of the world, accounted for an additional 15 percent. The U.S. and Canada picked up another 40 percent of the increase in non-BCST minor exports, leaving only about 17 percent of the increment for the rest of the world. In contrast with this pattern, the Americas absorbed only 30 percent of the expansion of BCST exports.

Policy Variables: The Net Effective Exchange Rate Applied to Minor Exports

We can now turn to an examination of the variables manipulated by Colombian authorities in their search for larger minor exports, beginning with exchange rate policy.

Before the exchange reforms of April 1967, "the exchange rate applied to minor exports" was often a blurry concept, subject to frequent changes. A quantification attempt, which becomes more robust as more recent years are approached, is presented in Table III-10. It involves the basic exchange rate given for most new non-coffee, non-petroleum merchandise exports. Frequently during the 1950's and early 1960's this rate was not applicable to exports of gold, bananas, raw hides, precious stones, etc., nor for manufactured exports having more than a given percentage of imported inputs. The rate was allowed to float freely during some periods (as during 1959) when it coincided with the free rate applicable to most capital account transactions. At other times, it was pegged at a level different from that applicable to coffee and imports (as during 1963). Since June 1968 it has corresponded to the basic "certificate" exchange rate, which with

Table III-10

Exchange Rate Applied to Most Registered Minor Exports

	Basic Rate (Pesos One U.S. $)	Export Taxes (%)	Subsidies Via Tax System (%)	Index of Colombian Wholesale Prices Deflated by those of the U.S.	Net Real Exchange Rate Applied to Most Minor Exports (1963 Prices)
1949	3.02	---	---	34.9	8.65
1950	3.12	---	---	38.0	8.20
1951	2.53	---	---	36.7	6.89
1952	2.92	---	---	37.1	7.86
1953-1	3.55	---	---	38.7	9.17
-2	3.41	---	---	39.8	8.57
-3	3.48	---	---	40.9	8.52
-4	3.43	---	---	40.9	8.39
1954-1	3.53	---	---	41.9	8.42
-2	3.46	---	---	43.6	7.93
-3	3.45	---	---	43.0	8.02
-4	3.50	---	---	41.9	8.35
1955-1	3.50	---	---	43.0	8.14
-2	3.85	---	---	43.0	8.95
-3	4.05	---	---	43.6	9.29
-4	4.04	---	---	43.6	9.26
1956-1	4.28	---	---	44.7	9.58
-2	4.67	---	---	45.8	10.19
-3	4.82	---	---	46.9	10.28
-4	6.05	---	---	48.5	12.49
1957-1	6.34	---	---	49.0	12.94
-2	6.23	---	---	54.1	11.52
-3	4.95	15	---	57.6	7.31
-4	5.23	2	---	58.6	8.76
1958-1	5.92	2	---	60.0	9.67
-2	6.10	2	---	63.0	9.49
-3	6.10	2	---	64.0	9.34
-4	6.10	2	---	66.0	9.06
1959-1	7.42	2	---	66.3	10.96
-2	8.00	2	---	69.3	11.31
-3	7.74	2	---	70.3	10.80
-4	6.93	2	---	71.0	9.56
1960-1	6.81	2	---	71.0	9.39
-2	6.82	2	---	72.0	9.28
-3	6.92	2	---	72.0	9.42
-4	7.12	2	---	73.0	9.56
1961-1	7.55	2	---	74.3	9.97
-2	8.23	---	---	78.0	10.55
-3	8.63	---	14	78.0	12.62
-4	8.77	---	14	78.0	12.82

Table III-10 continued

	Basic Rate (Pesos One U.S. $)	Export Taxes (%)	Subsidies Via Tax System (%)	Index of Colombian Wholesale Prices Deflated by those of the U.S.	Net Real Exchange Rate Applied to Most Minor Exports (1963 Prices)
1962-1	8.80	---	14	78.0	12.86
-2	8.91	---	14	79.0	12.86
-3	8.61	---	14	79.0	12.43
-4	10.22	---	14	80.0	14.56
1963-1	10.09	---	14	90.0	12.78
-2	9.99	---	14	101.0	11.28
-3	9.99	---	14	103.0	11.06
-4	9.99	---	14	107.0	10.64
1964-1	9.99	---	14	112.0	10.17
-2	9.98	---	14	119.0	9.56
-3	9.98	---	14	119.0	9.56
-4	11.74	---	14	119.0	11.24
1965-1	13.57	---	14	118.8	13.02
-2	16.63	---	14	122.6	15.47
-3	19.03	---	14	124.3	17.45
-4	13.50	---	14	132.0	11.66
1966-1	13.50	---	14	136.2	11.30
-2	13.50	---	14	142.9	10.77
-3	13.50	---	14	142.5	10.80
-4	13.50	---	14	145.3	10.59
1967-1	13.50	---	14	147.5	10.43
-2	14.02	---	18	150.1	11.02
-3	14.86	---	18	151.7	11.56
-4	15.54	---	18	153.5	11.95
1968-1	15.84	---	18	153.8	12.15
-2	16.14	---	18	157.3	12.11
-3	16.39	---	18	157.0	12.32
-4	16.73	---	18	156.7	12.60
1969-1	16.96	---	18	157.1	12.74
-2	17.19	---	18	160.0	12.68
-3	17.45	---	18	160.9	12.80
-4	17.69	---	18	163.7	12.75
1970-1	18.00	---	18	162.8	13.04
-2	18.30	---	18	167.1	12.92
-3	18.56	---	18	166.7	13.14
-4	18.92	---	19	169.3	13.30
1971-1	19.29	---	19	171.7	13.37
-2	19.69	---	19	175.7	13.34

Sources and Method: Basic rate applied to most minor exports were obtained from IMF-IFS and IMF-AROER, several issues. It should be noted that, especially during

the 1950's, minor exports were seldom treated as a homogeneous category. Export taxes were also obtained from IMF-AROER. Subsidies via the tax system are estimates of the average impact of: (a) an allowance for income tax deductions for exporters, effective from the third quarter of 1961 through the first quarter of 1967; and (b) the CAT, granted to all minor exporters from the second quarter of 1967 through the present. Both of these subsidies affected companies differently depending on their particular tax situation and bracket; an average tax rate of 30 percent was assumed to compute the net subsidy. On the other hand, the CAT is a negotiable instrument which could be used in lieu of cash to pay taxes only one year (reduced to 9 months in October 1970) from issue. Its exact present value will fluctuate with interest rate changes; an average discount rate of about 18 percent has been assumed. (Under the pre-CAT subsidy scheme there was typically one year lag the other way, i.e., between export earnings and tax payments).

Wholesale prices for Colombia and the U.S. were obtained from the IMF-IFS.

minor exceptions (such as petroleum) applies to nearly all current and capital account transactions.

The more notable features of the fiscal system affecting new exporters are taken into account by columns two and three of Table III-10. The emergency measures taken after the overthrow of General Rojas Pinilla in 1957 included export taxes; 15 percent during the third quarter of 1957 and 2 percent subsequently through the first quarter of 1961 for most minor exports. These taxes were justified as part of the austerity package aimed at working off short term foreign debts accumulated under the previous regime.

Starting effectively in June 1961, fiscal law (based on Law 81 of December 22, 1960) assumed that export profits were as much as 40 percent of gross exports, and allowed presumed export profits to be deducted from other profits. Excluded from the benefits of this law, besides coffee and petroleum, were bananas, precious metals and hides. Assuming a marginal income tax of 30 percent, with a normal lag of one year between export receipts and tax payment, one obtains an <u>average</u> (taxable-equivalent) subsidy of about 14 percent. Note that the bigger the corporation and, presumably, the higher its marginal tax rate, the larger the subsidy.

Articles 166 through 171 of Law 444 of March 22, 1967, replaced that fiscal incentive with the neater device of "tax certificates" given to exporters of goods other than coffee, petroleum and its by-products, and raw cattle hides. Those certificates (or CAT, using their Spanish initials) amounted to 15 percent of the f.o.b. value of exports, and could be used to pay income, sales and import taxes. Originally, they could be used for those purposes at face value only one year after they were issued, but

Table III-11

Four Features of the Net Real Exchange Rate for Minor Exports

	Annual Levels (Pesos per One US $)	Year-to-Year Changes (Percentages)	Index of Instability (Percentages)	Level Relative to Average Import Exchange Rate
1953	8.66	10.2	na	1.39
1954	8.18	- 5.5	2.86	1.39
1955	8.91	8.9	4.15	1.54
1956	10.64	19.4	8.05	1.97
1957	10.13	- 4.8	17.74	1.41
1958	9.39	- 7.3	4.21	0.84
1959	10.66	13.5	10.04	1.08
1960	9.41	-11.7	1.49	1.03
1961	11.49	22.1	7.83	1.32
1962	13.18	14.7	5.20	1.52
1963	11.44	-13.2	7.43	1.27
1964	10.13	-11.5	7.00	1.32
1965	14.40	42.2	20.16	1.82
1966	10.87	-24.5	2.50	1.19
1967	11.24	3.4	3.31	1.20
1968	12.30	9.4	1.50	1.19
1969	12.74	3.6	0.73	1.19
1970	13.10	2.8	1.53	1.19

Sources and Method: Basic data obtained from the last column of Table III-10 and from the sources listed there; the average import exchange rate (quarterly) was obtained from IMF-IFS. See text for explanations of the third and fourth columns.

the owner could sell them freely to others, at the discount indicated by short term interest rates. CATs themselves are tax exempt. While under previous tax exemption one had to have a given level of profits from other activities before one could benefit from the system, CATs can be readily converted into cash by any exporter, regardless of his tax status. On balance, the tax exempt status of CATs more than offsets their discount, yielding an average taxable-equivalent subsidy of about 18 or 19 percent (more details on these calculations are found in the notes to Table III-10).[6]

Once account is taken of differential price trends in Colombia vis-a-vis "the rest of the world", one can estimate the net real exchange rate applied to most minor exports. Many price indices could be used for this purpose, including those within and outside Colombia, and further refinements could include changes in foreign exchange rates. The calculations shown in Table III-10 simply compare Colombian and U.S. wholesale prices, a method which, although rough, probably provides a fairly accurate picture of the major trends in the net real exchange rate.

Four features of the computed net real exchange rate for minor exports may be briefly considered: average annual levels, year-to-year changes, a more refined index of instability, and the gap between the minor export rate and the average exchange rate for merchandise imports. It may be seen in the first column of Table III-11 that recent net exchange rates for minor exports exceed those ruling during the 1950's. The upward trend, however, was far from steady until recent years, as can be seen in the second and third columns. The unstability measure presented in the latter column uses the average of the absolute value of quarter-to-quarter percentage changes, for the four consecutive quarters of a given year.

Thus, this column shows that during 1954 the quarter-to-quarter changes in the exchange rate, whether positive or negative, averaged 2.9 percent, while during 1957 that average rose to a remarkable 17.7 percent. Besides 1957, other particularly unstable years were 1959 and 1965. One of the key advantages of the crawling peg emerges clearly from this index for 1968-70 (and, one could add, those for 1971-72).

The last column of Table III-11 presents the ratio of the annual minor export rate to the average merchandise import rate. The latter excludes the impact of duties, quotas, etc., on the effective cost of importing; it is simply an exchange rate, and as such conceptually different from the more complicated net effective rate for minor exports to which it is compared. For example, the gap shown for 1968-70 arises solely from the inclusion of CAT in the export rate. Nevertheless, this last column serves to highlight one striking fact: periods of exchange reform in Colombia, such as 1957-58, 1963 (more precisely, late 1962) and 1966 (also starting in late 1965) witnessed: (a) increases in the real average import rate, (b) declines in that corresponding to minor exports, and, therefore, (c) a tendency toward unification of those two rates. In other words, the goal of exchange rate unification was pursued even at the expense of incentives for minor exports. With the exception of the peculiar circumstances of 1958, however, the minor export rate remained above that for imports.

Other Policy Variables Used to Stimulate Minor Exports

Earlier sections have already noted other direct and indirect Colombian export-promoting policies, i.e, the "Plan Vallejo", participation in LAFTA and the Andean group, plus ad-hoc rural credit and other agricultural

measures. Law 444 of 1967 created other export-promotion schemes, centered around a fund (PROEXPO), generously financed by a one-and-a-half percent tax on the cif. value of all imports. The law (articles 181 through 202) gave that fund broad powers and great flexibility to engage in export promotion. PROEXPO provides local producers with information on foreign markets, with technical advice on transport, packing, quality control, etc., as well as on production of exportable goods. In a country where "shortage of working capital" is a permanent entrepreneurial complaint, it channels credit under generous terms to exporting firms, and under special circumstances it can provide equity capital. It also insures against political and other non-commercial export risks, and has helped to prepare a four-year export plan. By means of imaginative domestic advertising (including billboards proclaiming that "Exporting is the best business in Colombia") it tries to develop an "export mentality."[7] Abroad PROEXPO also advertises, holds fairs (even sending a Navy ship with Colombian goods around the Caribbean), etc. During 1970, its credit activities amounted to 409 Million Colombian pesos plus 6.8 Million U.S. dollars.

It is difficult to measure the effect of something like PROEXPO on non-traditional Colombian exports. Some of its activities, in particular its credit operations, are enthusiastically praised by entrepreneurs otherwise starved for cheap working capital. Others, such as its advertising and fairs, have a less clear net value (and can easily degenerate into boondoggles). Even less clear and unquantifiable is the value of such an institution in affecting private expectations regarding the firmness of government commitment to supporting export activities.

The PROEXPO credit program is one example of how Colombian authorities have used domestic distortions to give greater leverage to export-promoting schemes; if Colombian capital markets were perfect, there would be little power in that program. Similarly, the potency of the "Plan Vallejo" would disappear if all non-exchange rate import restrictions were eliminated. Note that these measures not always serve to simply offset the harmful effects of other policies on exporting; for some firms they may offer a net gain relative to an idealized pure neoclassical situation.

Especially since 1967, in fact, the many instruments of the Colombian government have been increasingly tilted in favor of (non-coffee, non-oil) exporters. Credit, besides that forthcoming from PROEXPO and that aimed at specific exportable crops, is channelled preferentially, under the more or less explicit tutelage of Central Bank authorities, toward exporters. That bias includes not only short term but also long term credit provided by several special development funds. Entrepreneurs are both formally notified and informally signalled that the fate of their requests regarding import licenses, release from price controls, or of any other request having to do with any field where public sector action is important (and there are few where that action is not) will very much depend on their export record. The medals and banners regularly presented by the President of the Republic to distinguished exporters, in other words, are not simply moral incentives, as they give recipients some muscle when dealing with the numerous public agencies capable of making the life of businessmen either miserable or easy (and profitable or unprofitable).

Finally, there are other export-promoting ideas which are just beginning to be exploited in Colombia to an important degree. One is the creation of areas within the country with adequate export and overhead facilities into which imports can be brought in free of duties and of other import restrictions, to be used exclusively by exporting firms located in those areas. At the moment there are two such "Zonas Francas": one in Barranquilla and a more recent one in Cali. Trading houses, particularly useful for marketing exports from small and medium scale producers, were rare until a few years ago, but recently several private (but not public) ones have sprung up.

The Supply Response of Colombian Minor Exports

On the whole, it is not unreasonable to suppose that the observed time series for minor exports trace out mainly movements along or shifts in the Colombian supply of exports. World demand for those exports changed and shifted throughout the period under study, but there are few products for which it could be doubted, in any one year, that it remained not far from perfect price-elasticity, in the range relevant for Colombia. Nevertheless, there are serious problems in the estimation of the exact supply schedule for minor exports.

There are, first of all, the difficulties arising from the heterogeneity of those exports. As it was already discussed, it has not been possible to obtain quantum indices for all time series. It has also been noted that during parts of the period under study several commodities faced special, sui generis treatment, such as bananas, gold and emeralds. Another set of problems arise from the many export-promotion policies adopted by Colombia, many difficult to quantify, and from their collinearity.

Related problems arise in the handling of trends during the 1960's which are said to have encouraged the growth of minor exports, such as the rapid growth of world trade, and, more relevantly, the creation of LAFTA. Access to a preferential trading arrangement may be viewed as providing the possibility of selling exports at higher than world market prices to one's partners, in exchange, of course, for buying their exports also at higher than world market prices. The LAFTA arrangement then falls into the previous difficulty of lack of "true" quantum indices for most minor exports.

Disaggregation, by product and customer, seems to provide a partial answer to these complications. However, it also introduces other problems. Any sub-category of Colombian minor exports is likely to be quite thin during most of the period under study, and thus subject to apparently erratic behavior as a result of particular events, independent of general policy variables. Temporary excess capacity in three or four important plants, for example, could give manufactured exports a boost, while a poor cotton crop can send the quantum of those exports way down.

Whatever the exchange rate and export incentives may be, it can normally be expected that as a country's productive capacity expands, its supply exports will steadily shift to the right. There is thus a case, not based on the expansion of world demand, for including a trend term in regressions trying to explain export supply response. But this procedure, given the strong upward trend of minor exports and of key policy variables, although yielding high R^2's, often results in ambiguous coefficients.

Given collinearity and serial correlation[8] problems, it was decided to estimate supply-response equations focusing on: (a) mainly independent variables

Table III-12

Results of Regressions Explaining Changes in Minor Exports: Annual Data

(Figures in parentheses under the coefficients show t-ratios)

Dependent Variables	Independent Variables: Constant	Change in the Exchange Rate	Instability of Exchange Rate	Lagged Change in BCST Output	Change in Dollar Unit Value of BCST	R^2	F-test	DW
I. 1954-70								
1. Total Registered Minor Exports	21.49 (3.4)	0.87 (3.0)	-1.95 (2.3)	---	---	0.41	4.9	2.0
2. Total Registered Minor Exports	11.78 (1.4)	0.89 (3.3)	-1.25 (1.4)	0.57 (1.7)	---	0.52	4.7	2.2
3. Value of BCST	22.65 (2.0)	0.98 (1.9)	-1.85 (1.2)	---	---	0.20	1.8	2.2
4. Value of BCST	-4.63 (0.4)	1.05 (2.6)	0.12 (0.1)	1.60 (3.2)	---	0.55	5.4	2.4
5. Value of Non-BCST Minor Exports	27.90 (3.3)	0.74 (1.9)	-2.45 (2.1)	---	---	0.28	2.7	1.9
II. 1958-69								
6. Total Registered Minor Exports	2.41 (0.2)	0.48 (1.6)	0.46 (0.4)	0.85 (2.4)	---	0.57	3.6	2.2
7. Total Registered Minor Exports	5.55 (0.6)	0.26 (0.9)	0.78 (0.7)	0.61 (1.8)	0.53 (1.8)	0.71	4.2	2.5
8. Value of BCST	-24.57 (1.9)	0.54 (1.4)	2.25 (1.4)	2.41 (5.2)	---	0.81	11.1	2.3
9. Value of BCST	-21.62 (1.7)	0.34 (0.8)	2.55 (1.6)	2.18 (4.4)	0.50 (1.2)	0.84	9.0	2.3
10. Quantum of BCST	-19.79 (1.7)	0.13 (0.4)	3.01 (2.0)	1.95 (4.6)	---	0.74	7.6	1.8
11. Quantum of BCST	-22.74 (2.0)	0.34 (0.9)	2.71 (1.9)	2.18 (4.8)	-0.50 (1.3)	0.79	6.5	2.2
12. Value of Non-BCST Minor Exports	20.03 (1.9)	0.21 (0.4)	-0.09 (0.1)	---	---	0.03	0.2	2.0

Table III-12 (continued)

Sources and Method: As explained in the text. Regressions in Section I of this table have 17 observations; those in Section II have 12 observations. The change in value of BCST and non-BCST exports for 1970 was estimated from preliminary exchange surrender data (BdlR). Other basic data were obtained from earlier tables in this chapter. All changes refer to year-to-year percentage changes.

related to the net effective exchange rate, to see how far one could go with just those variables, and (b) annual percentage changes of the relevant variables. Tables III-12 and III-13 present the best results of that attempt. The following discussion will first highlight the results most favorable to the hypothesis that "the exchange rate matters"; this will be followed by an examination of failures, including those not shown in those tables, as well as of other remaining problems of interpretation.

In the regressions based on annual data (Table III-12), the dependent variables shown include the year-to-year percentage changes in the value of all minor exports, in the value of BCST and non-BCST exports, and in the quantum index of BCST exports. Two time periods are considered. The independent variables are the year-to-year change in the net real exchange rate for minor exports, as derived in Tables III-10 and III-11, as well as the index of instability of that exchange rate, discussed earlier and presented in Table III-11. Finally, the lagged year-to-year percentage change in the domestic output of BCST crops and the changes in the dollar unit value for BCST exports are also included in some regressions. The simple average values for these variables are as follows (all in terms of annual percentage changes, except for the instability index):

	1954 through 1970	1958 through 1969
All registered minor exports	12.5	14.6
Value of BCST exports	14.7	12.6
Value of non-BCST minor exports	15.4	20.2
Quantum of BCST exports	----	16.4
Exchange rate	3.6	3.4
Instability index	6.2	5.9
Output of BCST (lagged)	9.2	9.1
Dollar unit value of BCST exports	----	-3.9

Table III-13

Results of Regressions Explaining Changes in Minor Exports: Quarterly Data

(Figures in parentheses under the coefficients show t-ratios)

Independent Variables	Dependent Variable: Changes in All Registered Minor Exports				
	1954-1/ 1971-2	1954-1/ 1962-4	1963-1/ 1971-2	1963-1/ 1971-2	1958-1/ 1971-2
Constant	23.59	34.28	16.94	169.81	20.45
	(4.2)	(3.9)	(2.2)	(2.3)	(3.3)
Change in Exchange Rate	0.86	0.78	0.78	1.54	0.72
	(4.9)	(2.9)	(3.2)	(3.5)	(3.7)
Stability of Exchange Rate	-1.61	-3.34	-0.18	-0.32	-1.23
	(2.3)	(3.3)	(0.2)	(0.3)	(1.6)
Level of Exchange Rate	-----	-----	-----	-12.70	-----
				(2.1)	
R^2	0.31	0.46	0.25	0.34	0.24
F-test	15.1	13.8	5.2	5.3	7.9
DW	1.36	1.36	1.37	1.54	1.36
Observations	70	36	34	34	54

Sources and Method: As explained in text. Quarterly data on minor exports obtained from the IMF-IFS.

It may be noted from these figures that for the exchange rate to explain all of the increase in minor exports one would want an elasticity of about 3.5 or more.[9]

Regressions 1 through 5 in Table III-12 show significant coefficients for the exchange rate implying elasticities between 0.74 and 1.05; these results are quite similar to those obtained by other researchers. Two of these equations also indicate that exchange instability is quite harmful to minor exports, thus providing some support for a widespread "hunch". In equation 1, for example, the coefficient for instability tells us that a reduction in the average quarterly fluctuations in the exchange rate from 10.0 to 5.0 will, ceteris paribus, raise the growth trend of minor exports from 2 percent per annum to nearly 12 percent; the same result could be obtained, again according to regression 1, only with an 11 percent devaluation in the real net exchange rate every year! One may finally note that although the R^2s for equations 1 through 5 are not as large as those using untransformed variables coupled with time trends, these equations avoid the serial correlation problems plaguing the other version of supply schedules.

These results are basically confirmed by those presented in Table III-13, based on quarterly data, although using again annual percentage changes in all minor exports and in the exchange rate as variables. It has not been possible to disaggregate quarterly minor exports. For those two variables, for example, the percentage change between this year's first quarter and last year's first quarter, and so on, were used in the regressions. This approach avoids seasonality considerations. The index of instability is defined as before; for a given quarterly observation the index refers to the average fluctuation

in the exchange rate during that quarter and during the previous three quarters. The hypothesis that the change in minor exports depends not only on changes in the exchange rate and its instability, but also on the level of the exchange rate was explored; the only remotely successful result is presented in Table III-13. The average values for the variables used in those regressions are as follows:

	All Registered Minor Exports, Annual Percentage Changes	Exchange Rate Annual Percentage Changes	Stability Index	Exchange Rate Level (Pesos per US 4)
1954-1 through 1971-2	17.5	4.3	6.1	11.1
1954-1 through 1962-4	17.4	6.3	6.5	10.2
1963-1 through 1971-2	17.6	2.2	5.6	12.1
1958-1 through 1971-2	15.9	4.1	6.1	11.6

The estimated supply elasticities with respect to the exchange rate, with one exception, are quite close to those obtained in the annual regressions. Those elasticities are not significantly different as between the different time periods, and all have hefty t-statistics. The instability index again performs reasonably well, although better for the earlier years. The inclusion of the level together with the change of the exchange rate improves the fit for the 1963 through 1971 period, and about doubles the estimated elasticity. Taken literally, however, this fourth column indicates that an increase in the exchange rate from 12 pesos to 13.2 pesos (or by 10 percent) will increase minor exports, ceteris paribus, by 15.4 percent that year, but will reduce the trend growth from 17.4 percent to 2.2 percent, so that even during the first post-devaluation year there will be hardly an increase in exports.[10]

Another independent variable, not shown, was also added to the regressions in Table III-13: the percentage change in the exchange rate squared, but keeping its original sign. The best results were obtained in the regression covering 1963-1 through 1971-2; as expected, this procedure increased the coefficient for the change in the exchange rate, to 1.71 (with a t-ratio of 2.8), and resulted in a negative sign for the squared term, which had a coefficient of -0.017, and a t-ratio of 1.6. The R^2 and the Durbin Watson statistic rose (slightly) to 0.31 and 1.50, respectively, and the stability coefficient remained insignificant. In all other regressions the t-statistic for the squared term was below one. One can interpret the result for 1963-71 as yielding an upper estimate for the supply elasticity of minor exports with respect to the exchange rate; that higher value arises once it is recognized that large changes in the exchange rate cannot be expected to yield correspondingly large changes in minor exports, either because of adjustment lags or for other reasons.

Direct experimentation with lagged values for exchange rates, using still quarterly data, yielded clearly positive results only in one case. For the period 1954-1 through 1962-4, changes in the exchange rate lagged one full year had a coefficient of 0.78, with a t-statistic of 3.0. The unlagged exchange rate change increased its coefficient to 0.99, with a t-statistic of 3.9. The corresponding figures for the stability index were -4.01 (coefficient) and 4.2 (t-statistic). The R^2 rose to 0.57 and the Durbin Watson statistic to 1.50. Note that the sum of the two exchange rate coefficients gives a long term elasticity practically identical to that obtained for 1963-71 when the squared exchange rate change was included in that regression.

The evidence discussed so far is consistent with the hypothesis that exchange rate policy, including its stability, influenced minor exports a good deal. It does not, however, support the presumption that it is the only policy which has mattered. Note how in regressions 1, 3 and 5 of Table III-12, and in those of Table III-13, the constant (trend) terms are large and significant. Regression 1 in Table III-12, for example, says that a constant, perfectly stable real effective exchange rate for minor exports, at a level similar to that observed during the period under study, would be consistent with a growth in those exports of 21.5 percent per annum, far exceeding growth in the rest of the Colombian economy. With the instability observed, on the average, during 1954 through 1970, the upward trend would still be 9.4 percent per annum. An upward creep of 3.6 percent per year in the real effective exchange rate, always according to the same regression, brings the rate of expansion in minor exports to the 12.5 percent actually observed. What lies behind the powerful constant terms? They could be, first of all, picking up inflationary trends in the world economy, but this cannot account for very much, and would be limited to non-BCST exports (BCST dollar prices have declined on average during the period under study). The major answer must rely on other direct and indirect export promotion schemes discussed earlier. Note how the constant term drops in regressions 2 and 4 in Table III-12 when the lagged change in domestic production of BCST is brought in; these latter changes, as discussed earlier, have been heavily influenced by credit and other promotional policies of the public sector (and, of course, by weather).

Unfortunately, the evidence regarding the influence of exchange rate policy on minor exports is less robust than it appears at first sight. Disaggregation

of annual data, except for regressions 3, 4 and 5 in Table III-12, and the use of only the 1958-69 years (for which BCST export quantum and price indices are available), play havoc with our previous conclusions. Even in regressions 2, 3 and 4 the instability index performs more or less poorly; but in regressions 6 through 12 the significance of the exchange rate variable also practically disappears. In the latter regression, the instability index even takes on an *a priori* incorrect sign, accompanied by high t-statistics. Only the coefficient for the lagged change in local BCST production remains highly significant and sensible, yielding an elasticity of BCST exports with respect to output of around two.

As the dollar prices for BCST exports may be taken as exogenous to Colombia, the specification of regressions 10 and 11 is superior to that of 8 and 9 (and 3 and 4). Perhaps because of the crude methodology used in deriving the quantum and price indices, the supply elasticity of the BCST export quantum with respect to its own price (i.e., the dollar unit value of BCST exports, put in regression 11 separately from the exchange rate) yields a coefficient with an incorrect (or unexpected) sign. It may be noted that for other export commodities it has not been possible to estimate supply responses to "own" prices, just to general exchange rate policy.

Other regressions (not shown) using changes in dollar values of non-BCST exports to LAFTA countries and non-LAFTA countries separately, as well as changes in pure manufactured exports, as the dependent variables (only for 1958 through 1969) yielded insignificant coefficients for all variables, excepting constant terms.

Other independent variables, using yearly data, also yielded insignificant coefficients. These included: changes in domestic industrial output (to test for the influence of generalized cyclical excess capacity on non-BCST and pure manufactured exports);[11] contemporary (i.e., unlagged) changes in the domestic production of BCST; the level of the real effective exchange rate, in regressions other than that shown in Table III-13; and all lagged variables excepting BCST output.

As can be seen in Table III-12, when the years 1954 through 1957, which presumably have the shakier data, are dropped from the annual regressions, the results worsen considerably. It may also be remarked that adding 1970 to the regression for all minor exports worsens the fit, as that year witnessed a drop in exports difficult to explain with the independent variables at hand.

Aggregating unregistered with registered minor exports, and using that annual change as the dependent variable also worsens the results, and yields insignificant coefficients for the independent variables. Together with the insignificance of most lags, this failure generates some suspicion that at least part of the apparent exchange rate elasticity of registered minor exports may arise from substitution effects induced by the legal exchange rate (in contrast with the black market rate) between smuggling and registration, and between one year and another, or one quarter and another, according to John Sheahan's results. Especially before 1967, for example, the timing of exports of storable BCST crops could have been influenced by the exchange rate, without that implying much for the long run expansion of those exports.

It can be argued with some force that the exchange rate which has been used in the regressions is more applicable to some minor exports than others.

It is not just a matter of neglecting ad hoc exchange regulations for some products; it is also that for minor exports going to LAFTA one should also take into account, not the U.S. wholesale price index, but price levels and exchange rates in Argentina, Brazil, Chile, etc. Nevertheless, it remains disturbing that the disaggregated results are so much poorer than those for all registered minor exports lumped together.

What to make of this bundle of results? In spite of the shortcomings noted, the hypothesis that exchange rate policy has been a major influence on the evolution of Colombian minor exports has more evidence to back it up than its extreme opposite. The evidence based on quarterly data is particularly impressive. But it is not possible, given the information available, to credit different policy variables with exact shares of the increase in those exports. The untangling of the impact of different policies on export promotion may only be possible, in fact, using cross-section data for several countries. Even then, important interaction effects among export-promotion policies in a given country, as well as the degree of credibility of those policies among entrepreneurs may be impossible to quantify. Examples of this type of issue are the following questions: By how much is the credibility of export incentives enhanced by the commitment to a crawling peg? Are there discontinuities (or floors and ceilings) for the effects of some variables, depending on the value of others? Will PROEXPO efforts only show if the real net exchange rate is above certain minimum? And will further increases above that minimum bring less exports than, say, expanding the benefits of "Plan Vallejo"? Will subsidies to selected industries generate foreign exchange at lower domestic resources costs than a more devalued exchange rate? Or avoid generating quasi-rents? Alas, neither <u>a priori</u> reasoning nor empirical work appear capable

at this point of convincingly answering those questions, at least for Colombia, whose experience with substantial minor exports is, after all, relatively short.

Outlook for Minor Exports, and Their Role in the Colombian Economy

Whatever its defects, the post-March 1967 policy package has been consistent with an acceleration in the growth of minor exports (the average growth rate was 12.3 percent during 1963 through 1966, and 18.3 percent during 1967 through 1970). The impact of the greater stability and the higher level of the effective exchange rate, as well as other export-promoting features of Law 444, appear to be still filtering through the economy, strengthening the new "export mentality", and triggering fresh learning effects. If these policies are maintained, including the upward creep in the effective exchange rate, and if the world economy does not suffer a dramatic trend change, one can expect an average minor export growth rate of still (in spite the larger base) about 15 percent during the next 10 years. One could add, on the optimistic side, that we have only discussed merchandise exports; Colombia has hardly begun to explore her potential in export of services, of which tourism is an obvious example, and which now which now does not receive CATs.

Some may find strange that no further dismantling of the import control apparatus has been given as a precondition for future minor export expansion. Such dismantling could, of course, serve as an additional impetus, together with other policy changes, but Colombian experience, as well as that of other countries, shows that it is not a sine qua non for export growth. In fact, the achievement of the 15 percent target will allow the continuation of the gradual relaxation of import controls, which has been going on since 1967.

This "virtuous circle" of export expansion--import liberalization--more export growth is, of course, the opposite of the export contraction--import controls--fewer export incentives trends which dominated many Latin American economies during about thirty years, following 1929. It should be noted that in the triggering of the "virtuous circle", export expansion, and not import liberalization, is given pride of place; launching a massive import liberalization program without a secure export front can lead to serious setbacks for the whole liberalization effort, as the 1965-66 Colombian experience shows. Indeed, in retrospect such experiments putting the cart before the horse, appear as risky "chicken games" designed to force the hand of those policy makers reluctant to devalue. November 1966 showed the limitations of that tactic.

Neither is the creation of firms 100 percent devoted to exporting a necessary condition for rapid export growth; a gradual increase in the exported share of many firms from 5 to 10 to 20 percent can give impressive boosts to exchange earnings, and even a (constantly rotating) group of sporadic exporters can achieve significant results.

What can be questioned is the degree to which a minor export expansion of 15 percent per year will benefit the Colombian economy, especially if most of that growth were made up of an assortment of capital intensive goods subject to possibly distorting incentive schemes, and/or sold under reciprocal preferential agreements. We can now turn toward an examination of this issue.

During 1969-70, minor exports accounted for 31 percent for all registered exports. If coffee and petroleum export dollar values are held constant, a 15 percent annual growth in minor exports means that by 1979-80 they will have more than doubled that share to 64 percent; during that ten year interval

total export earnings will have grown at an annual rate of nearly 7 percent. In 1969 registered minor exports represented 3.8 percent of Colombia's Gross Domestic Product[12]; direct and indirect domestic value added in those exporting activities was probably around 3 percent of GDP. Assuming that real domestic value added in minor exports grows at 15 percent per annum, that share will have risen to 6.8 percent of GDP by 1979, if the latter grows at 6 percent per annum. If GDP expansion reaches 7 percent, the same figure as for the growth of all exports, the share of value added by minor exports will be 6.2 percent by 1979.

The last chapter will provide more detailed speculation on the probable role of minor exports in furthering Colombia's development. Here it will be sufficient to observe that, given the mediocre long term prospects for coffee exports as well as for concessional capital inflows and Colombian foreign debt obligations, the availability of capital goods required for achieving an average growth rate between 6 and 7 percent per annum during the next 10 years will very much depend on achieving a growth in minor exports to efficient suppliers of capital goods (or to suppliers of freely convertible foreign exchange) of about 15 percent per annum.

What will this scenario imply for the problem of unemployment and the related issue of an skewed income distribution? It should be clear that the achievement of annual growth rates of 15 and 7 percent, for minor exports and GDP, respectively, will not necessarily result in a smaller rate of unemployment and/or a better income distribution in ten years time. Remember first that the greater availability of foreign exchange will allow an expanded importation of machinery and equipment; how this enlarged flow is spread out and allocated can make the difference between having a few more capital-intensive

activities, perhaps labor displacing, or having a large number of new labor absorbing units. Unless import liberalization and other public policies consciously avoid giving incentives for the first type of development, faster growth may actually lead to more unemployment.

It has already been noted that several minor exports, particularly those going to LAFTA, seem to be quite capital intensive, and also frequently import-intensive. Their rapid expansion will have little impact on the demand for unskilled labor; indeed, some purely import-substituting activities and most home goods (non-tradeables) are likely to be less capital-intensive. A gradual "fine-tuning" of export incentive schemes could help correct such a situation, by changing the incentive structure without necessarily modifying its average level. Steps in this direction could include, for example, the imposition of a uniform tariff on Plan Vallejo imports, compensated by an increase in the CAT flat rate. That CAT increase could also be calculated so that it offsets on average the elimination of its tax-exempt status. Smaller firms, and those whose exports have a higher domestic value-added content will benefit; both are likely to be relatively labor-intensive, and involve domestic entrepreneurs to a larger degree. The spread in the "effective protection" generated by the export incentives would also be narrowed.[13] The application of these reforms, of course, should be carried out with extreme care, to avoid throwing out the healthy export growth baby with the only slightly dirty (distorted) bath water. If nothing else, the state of knowledge regarding the exact impact on minor exports of each of the various promotion policies makes such caution very advisable.

Even with refined and improved export promotion and import allocation policies it is unlikely that the twin targets of 15 and 7 percent growth for minor exports and GDP will improve Colombian income distribution by very much. Remember that even after ten years value added in minor exports is unlikely to exceed 7 percent of GDP, so that even if those exports were all labor-intensive, their net impact on the aggregate demand for labor will remain, at least for the next ten years, modest. And further expansion of primary product exports, such as cotton, bananas and sugar can hardly be counted upon to improve land tenure conditions. In fact, the need to promote exports has already been used as an argument against land reform, particularly in the Cauca valley.

The major contribution of faster export growth and of a foreign trade sector free of the periodic crisis so prevalent before 1967 may very well turn out to be that it gives policy makers the opportunity, which they may or may not grasp, to turn their attention away from the basically unnecessary and superficial balance of payments hysterics, and toward more important and difficult problems, such as the raising the level of welfare of the poorest half of the population within a reasonably short period of time. That task will require policy measures beyond the manipulation of exchange rates, tariffs and such.

Footnotes to Chapter III

* Christina Lanfer did most of the work for this chapter.

1 The list of those seduced by the hope of explaining the irregular surge of Colombian minor exports is impressive. It includes: John Sheahan and Sara Clark, "The Response of Colombian Exports to Variations in Effective Exchange Rates", Research Memorandum No. 11, Center for Development Economics, Williams College, June 1967; Antonio Urdinola and Richard Mallon, "Policies to Promote Colombian Exports of Manufactures", Economic Development Reports, No. 75, Presented at the D.A.S. Conference, Sorrento, Italy, September 1967; José Diego Teigeiro, "Promotion of Non-Traditional Exports in Colombia", April 1970 (mimeographed); Alberto R. Musalem, "Las Exportaciones Colombianas, 1956-1969", May 1970 (mimeographed); Richard R. Nelson, T. Paul Schultz and Robert L. Slighton, Structural Change in a Developing Economy: Colombia's Problems and Prospects (Princeton: Princeton University Press, 1971), especially pp. 210-13; Jonathan W. Eaton, "Effective Devaluation as an Export Incentive in Less Developed Countries", Presented to the Department of Economics, Harvard University, in partial fulfillment of the requirements for the degree with honors of Bachelor of Arts, March 1972, Chapter 6.

2 Data obtained from UN-FAO-PY and UN-FAO-TY, several issues.

3 Although this is not the place to quantify LAFTA-induced trade diversion, it may be noted that in 1969 the unit value of Colombian exports of inorganic chemicals (SITC #513 and #514) to LAFTA was 7.9 U.S. cents per net kilogram, compared with a corresponding figure of only 3.7 U.S. cents per kilo for non-LAFTA countries, implying an average LAFTA preferential margin of 116 percent (assuming homogeneity).

4 As noted by my colleague Benjamin I. Cohen, the expansion of import-intensive export activities may soon call for the computation of net, rather than gross, exports, at least for some types of exports, particularly in countries which have gone deeply into outward-oriented assembly-type activities with heavy use of imported parts.

5 It can be easily shown that in a locally monopolized industry selling both domestically and abroad (at different prices) a lowering of import duties can lead to a contraction of exports and an expansion of domestic sales. This apparently paradoxical result, however, is unlikely to have much practical relevance over the long run. The basic argument is developed in an umpublished paper of Gonzalo Giraldo. It is similar to the analysis showing that the imposition of a minimum wage can expand employment under conditions of labor monopsony.

6 Richard C. Porter, in his "Brith of a Bill Market" (Discussion Paper No. 11, Center for Research on Economic Development, The University of Michigan, August, 1970) has analyzed in detail the relationships between the marginal tax and discount rates of a given firm, and the extent of the export stimulus offered by CAT and its predecessor subsidy scheme. He shows that both CAT and the exemption scheme yield larger export incentives to firms with higher marginal tax rates and lower discount rates (typically larger firms); however, he argues that the CAT system increased the export stimulus, relative to the previous tax exemption, for firms with marginal tax rates below 37.5 percent, reducing it for firms with higher tax rates.

7 The advertising is similar to that now sponsored by the Bureau of International Commerce, U.S. Department of Commerce. See, for example, the ad "It took a Texan to cool the Japanese" in The Wall Street Journal, January 26, 1972, p. 11.

8 In earlier work Durbin-Watson statistics in supply-response regressions were very low. See also Eaton's thesis, mentioned in footnote 1.

9 But in 10 years time, the increase in minor exports growing at 12.5 percent per annum will be 224.7 percent; the corresponding figure for an exchange rate growing at 3.6 percent will be 42.4 percent. So while for the annual rates the ratio (elasticity) is 3.5, for the 10 year span the ratio is 5.3.

10 Other regressions (not shown) using quarterly data, but in logarithmic form and with explicit trend variables, yielded elasticities nearer one. When trend terms were excluded, the elasticities rose to about 2.7 (for the whole period). The instability index also performed well in those regressions, and the R^2s were, of course, much higher with trend (around 0.85). The Durbin-Watson statistics, however, were always below one, often less than 0.5. Dummies indicated the presence of significant seasonal factors, particularly a positive one in the second quarter. As in the work of John Sheahan, in these regressions coefficients for the lagged exchange rate were insignificant, or had the wrong sign.

A dummy variable was also introduced in regressions of the type presented in Table III-13, having a value of 1 whenever the exchange rate change was negative, and zero otherwise. This test of possible asymmetrical responses to positive and negative exchange rate movements yielded no evidence for asymmetry; the t-statistic for the dummy was below 0.7 in all cases, and the signs were different among time periods.

11 For example, during the difficult year of 1967 industrial output rose by only 3.6 percent, compared with an average of 6.2 for the previous two years. Pure manufactured exports, however, rose in dollar value during 1967 only by 4.8 percent, in contrast with an average of 21.2 percent during the previous

two years. It is possible that more disaggregated indices of excess capacity could yield better results.

12 Applying an average CAT-inclusive exchange rate of 20.4 Pesos to the dollar value of those exports.

13 These and other suggestions have been put forth and elaborated by the staff of the Colombian National Planning Department, at least since 1970.