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## Latin America in Depression, 1929-1939

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CENTER DISCUSSION PAPER NO. 344

LATIN AMERICA IN DEPRESSION, 1929-1939

Carlos F. Diaz Alejandro

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## Latin America in Depression, 1929-1939

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The 1930s are widely regarded as a crucial turning point in Latin American development: it marks the start of import substituting industrialization and of public policy clearly committed to growth and other social objectives. The contrast between "before and after 1929" is often exaggerated, but there is little doubt that the events of the 1930s have profoundly influenced the region's attitudes toward foreign trade and finance. It has been generally recognized that several Latin American countries performed "reasonably well" during the Great Depression of this century, and different hypotheses have been advanced to explain such behavior. Perhaps the flashiest one has been that of Andre Gunder Frank, who argues that the Latin American 1930s demonstrate that contrary to neoclassical orthodoxy the Periphery industrializes and prospers only when the Center is weak and unable to maintain its imperial and under-developing dominance.<sup>1/</sup> Also influenced by the Latin American experience during world wars and depressions, Albert O. Hirschman had earlier noted that fluctuations in foreign exchange receipts of less developed countries may set in motion certain valuable development mechanisms.<sup>2/</sup> Alexander Kafka referred to the Great Depression as an example of growth-promoting disequilibrium under some Latin American circumstances; in a manner similar to Hirschman he conjectured that there is an optimum degree of adverse shock, without implying that an adverse shock is better than a favorable one.<sup>3/</sup>

In what follows the magnitude of the shock of the Great Depression to Latin America will first be documented. Secondly, the policies

adopted to cope with the crisis will be discussed. Then the performance of various Latin American economies will be explored, and the sense in which they did reasonably well will be analyzed. Sundry observations will close the paper.

From the outside Latin American countries may all look the same but the region, even in the late 1920s, contained a variety of open economies some of which were less open and more industrialized than others. Indeed, the 1930s witnessed different economic responses which can be divided between those of small or passive and those of large or active economies. Even though statistical documentation for passive countries is scantier than for active ones, this typological point will be of importance throughout the paper.

#### Shocks

For a number of exporters of primary products the late 1920s had been difficult years<sup>4/</sup>, but on the whole it is useful to picture that period as one of reasonable balance of payments equilibrium in the major Latin American countries. A series of violent external shocks during 1929-33 disrupted that equilibrium, and much of the economic history for the 1930s can be written around attempts to adjust the balance of payments, and then the domestic economy, to the new environment.

The collapse of the world economy during 1929-33 was transmitted to Latin America first of all by a sharp change in relative prices: dollar export prices fell more steeply than dollar import prices. As can be seen in Panel A of Table 1, within four years the terms of trade fell by 21 to 45 percent in countries for which comparable data are available.<sup>5/</sup> Note that for a country with a ratio of exports to Gross National Product of thirty percent a deterioration of the

terms of trade by thirty percent would represent a loss in real income of nine percent, assuming no change in physical output. As a first approximation the deterioration of the terms of trade during 1929-33, as well as their subsequent evolution in the 1930s may be regarded as primarily exogenous to the Latin American economies.<sup>6/</sup>

Except for the spectacular Chilean case, for the countries shown in Table 1 the contraction in the export quantum during 1929-1933 was substantially less than the terms of trade deterioration. By the late 1930s the export quantum of several countries had surpassed the 1928-29 level, but for most countries the terms of trade for 1938-39 remained below relative to pre-depression magnitudes. Latin American exports were predominantly rural and mining products, the former showing a smaller price-elasticity of supply than the latter; some rural products, such as coffee and livestock, also followed sui generis output cycles rooted in their productive characteristics. External demand conditions were not uniformly negative for all primary products, particularly during the late 1930s; Brazilian cotton, Argentine corn, and Peruvian gold are examples of favored staples. Such commodity lottery naturally influenced the pace of recovery.

Table 2-A presents the yearly evolution of the purchasing power of exports, defined as the terms of trade multiplied by the export quantum; this Table also includes estimates for Cuba. After touching bottom in 1932 or 1933, recovery sets in culminating in 1936 or 1937, after which a new relapse occurs. By the late 1930s the purchasing power of exports remained between 20 and 50 percent below 1929 levels.

Table 1Foreign Trade Indicators for Some Latin American Countries

(1928-29 = 100)

	<u>1932-33</u>	<u>1938-39</u>
<u>A. Terms of Trade</u>		
Argentina	69	98
Brazil	62	43
Colombia	63	57
Chile	59	60
Ecuador	72	56
El Salvador	55	50
Mexico	63	124
Venezuela	79	47
<u>B. Export Quantum</u>		
Argentina	85	70
Brazil	93	162
Colombia	100	132
Chile	36	87
Ecuador	78	109
El Salvador	96	115
Mexico	60	49
Venezuela	91	145
Peru	82	108

Sources: Basic data obtained from Naciones Unidas, America Latina: Relacion de Precios del Intercambio, Cuadernos de la CEPAL, Santiago, Chile, 1976. The terms of trade are defined as an index of dollar export unit values to dollar import unit values.

Table 2-A

Purchasing Power of Exports, 1928-39

(1929 = 100)

	<u>Argentina</u>	<u>Brazil</u>	<u>Colombia</u>	<u>Cuba</u>	<u>Chile</u>	<u>Ecuador</u>	<u>El Salvador</u>	<u>Mexico</u>	<u>Peru</u>	<u>Venezuela</u>
1928	110	97	111	101	91	114	110	94	-	74
1929	100	100	100	100	100	100	100	100	100	100
1930	67	67	82	68	62	91	60	63	66	110
1931	69	62	80	57	41	64	67	49	48	71
1932	65	54	72	43	16	68	40	35	43	74
1933	58	59	63	45	25	50	77	39	52	48
1934	74	70	85	50	38	82	67	56	71	61
1935	78	71	73	56	42	64	57	68	79	39
1936	86	77	83	67	47	77	60	62	80	55
1937	115	75	85	75	73	73	83	69	82	58
1938	68	67	79	64	48	64	53	67	68	58
1939	76	71	80	67	51	68	70	52	70	58

Source: As in Table 1; Cuban purchasing power of exports obtained by dividing indices of the value of exports at current prices by the United States wholesale price index. Basic data from Ministerio de Hacienda, Direccion Nacional de Estadistica, Resumenes Estadisticos Seleccionados, La Habana, 1959, p.25; and U.S. Department of Commerce, Statistical Abstract of the United States, 1965, Washington, D.C. p.356

The crisis disturbed the balance of payments also via the capital account. After 1930 gross capital inflows fell sharply. Furthermore, with the dollar prices of exports dropping unexpectedly by around 60 percent debt repayments rose in real terms, compressing the capacity to import beyond what is suggested in Table 2-A. Therefore, between 1929 and 1932-33 the import quantum fell more than the purchasing power of exports, as may be seen in Table 2-B (with the exception of Mexico). By 1934 all countries, except Argentina, had suspended normal servicing of the external national debt. Import volumes as a rule recovered much faster than the purchasing power of exports. Private portfolio capital was not to play an important role in the external accounts of Latin American countries until the 1960s.

During the 1920s critics of the prevailing pro-trade orthodoxy within Latin America pointed to signs of growing protectionism at the Center. In Britain, imperial preferences were advocated by influential groups; in the United States, the 1928 presidential election was accompanied by a protectionist wave. These trends culminated with the passage of the Smoot-Hawley tariff in 1930, the British Abnormal Importations Act of 1931 and the Ottawa Commonwealth preferences of 1932. The Latin American Periphery, unconsulted regarding these measures, could go hang. A North American author writing in 1935 about southern cone countries in Latin America described the situation as follows:

"The trade barriers which have been erected in Europe and the United States against agricultural products and raw materials have placed these countries in the forefront of foreign trade decline...Nationalistic tendencies are not dominant in these countries. National leaders fully recognize the desirability of a heavy volume of trade..National self-sufficiency to a greater and greater measure was forced upon these countries by the governmental policies of the United States and European nations"<sup>7/</sup>



Table 2-B

Comparison of Purchasing Power of Exports (A) and Import Quantum (B)

(1929 = 100)

		<u>1928-29</u>	<u>1930-31</u>	<u>1932-33</u>	<u>1934-35-36</u>	<u>1937-38-39</u>
Argentina	A	105	68	62	79	86
	B	98	75	49	59	74
Brazil	A	99	65	57	73	71
	B	100	49	44	60	72
Colombia	A	106	81	68	80	81
	B	109	49	44	70	93
Cuba	A	101	63	44	58	69
	B	99	66	32	51	62
Chile	A	96	52	21	42	57
	B	90	70	18	35	49
Ecuador	A	107	78	59	74	68
	B	100	67	43	76	77
El Salvador	A	105	64	59	61	69
	B	95	50	45	55	54
Mexico	A	97	56	37	62	63
	B	94	61	42	60	73
Peru	A	100 <sup>a</sup>	57	48	77	73
	B	100 <sup>a</sup>	62	39	78	88
Venezuela	A	87	91	61	52	58
	B	90	57	35	31	55

<sup>a</sup>Refers only to 1929

Source: As in Table 2-A

The emergence of a protectionist and nationalistic Center was perhaps the greatest shock to Latin American economies during the early 1930s. The memory of this betrayal of Ricardo would last longer in the Periphery than in the Center.

### Policies

An ex-post description of measures taken by a group of Latin American countries during the early 1930s risks attributing to "Autonomous Policy" a series of improvisations more or less forced by circumstances. Yet not all countries were in a position to improvise. The largest ones, such as Argentina, Brazil, Colombia and Mexico, were at the forefront of experimentation. The smallest countries, such as Guatemala, Haiti and the Dominican Republic did little but wait for export-led recovery. In between there is an interesting contrast between Cuba, which was dragged down by the crisis as surely as the Mississippi, versus Chile and Uruguay, which in spite of their smallness broke away from the orthodoxy of the gold-exchange standard and free trade.

Unfortunately, data for those years are scanty, particularly for the small or passive countries. There is enough information, however, to document several of the measures taken by the large or active countries.

By the end of 1931 the active nations were experimenting with the balance of payments measures previously regarded as heterodox.<sup>8/</sup> As convertibility into gold was abandoned, exchange rates depreciated, particularly those applied to imports. Table 3 presents indices of those exchange rates, defined as units of local currency per one U.S. dollar. The rates have been deflated by each country's cost-of-living index (or other available general index) relative to the U.S. cost of living index. The real depreciations relative to the dollar for the countries

Table 3

Average Real Import Exchange Rates

(1929 = 100)

	<u>1925-29</u>	<u>1930-34</u>	<u>1935-39</u>
Argentina	101.5	137.2	133.2
Brazil	100.2	173.2	186.0
Chile	100.5 <sup>a</sup>	186.7	175.3
Colombia	98.8	145.6	158.6
Mexico	103.0	136.4	140.0
Peru	98.6 <sup>b</sup>	153.8	153.1
Uruguay	101.3	155.8	160.3

<sup>a</sup>Refers only to 1928 and 1929

<sup>b</sup>Refers only to 1926, 1927, 1928, and 1929

Sources and method: For definitions see text. Basic data obtained from League of Nations yearbooks and national sources.

shown range from 36 percent to 87 percent. The depreciation trend appears to have been unaffected by whether a country was politically moving Left (Mexico, Colombia) or Right (Argentina, Uruguay).

As may be deduced from Table 4, most of the swing in the real import exchange rates arose from nominal depreciations, which had a surprisingly small effect on price levels. Nevertheless, for all countries shown, price indices for 1935-39 were higher than that of the USA.

For the passive countries one may conjecture that there was no such real depreciation of the import exchange rates. Some of these countries (Cuba, Panama) did not even have a Central Bank, while others (Guatemala, Haiti) maintained their peg to the U.S. dollar throughout the crisis and on the whole remained committed to gold-exchange standard rules.

The real depreciation of the Argentine peso during the 1930s can be documented more fully from three additional angles: when other deflators are used, with respect to the British pound, and for the export rate. Table 5 presents these calculations. It may be noted that the real depreciation is smaller when wholesale price indices are used as deflators, a not surprising result when considering the heavier weight of tradable goods in that index in contrast with cost of living indices. For 1930-33 the depreciation is larger with respect to the dollar than to the pound; for later years this is reversed when cost of living indices are used as deflators. After 1933 a gap appears between import and export rates, but the most remarkable fact in the light of later experience is that the real average export rate does not

Table 4

Cost of Living Indices

(1929 = 100)

	<u>1925-29</u>	<u>1930-34</u>	<u>1935-39</u>
Argentina	100.8	86.4	89.8
Brazil	96.9	74.5	94.0
Chile	99.2 <sup>a</sup>	112.1	155.5
Colombia	101.4	65.9	90.3
Mexico	95.7	87.1	111.4
Peru	106.6 <sup>b</sup>	87.9	93.3
Uruguay	98.7	96.7	98.2
USA	101.4	83.9	81.6

<sup>a</sup>Refers only to 1928 and 1929

<sup>b</sup>Refers only to 1926, 1927, 1928, and 1929

Sources and method: As in Table 3

Table 5

Argentine Average Real Exchange Rates, 1925-1939

(1929 = 100)

	Dollar				Pound Sterling			
	<u>Cost of Living</u>		<u>Wholesale Prices</u>		<u>Cost of Living</u>		<u>Wholesale Prices</u>	
	<u>Imports</u>	<u>Exports</u>	<u>Imports</u>	<u>Exports</u>	<u>Imports</u>	<u>Exports</u>	<u>Imports</u>	<u>Exports</u>
1925-29	-	101.6	-	99.5 <sup>a</sup>	-	102.3	-	101.5 <sup>a</sup>
1930-33	-	135.1	-	112.9	-	126.7	-	100.7
1934-36	139.7	124.2	117.9	105.0	160.7	143.1	115.8	103.1
1937-39	131.3	120.0	109.2	100.4	147.6	135.4	113.1	103.9

<sup>a</sup>Refers to 1926-29 only

Sources: "Exchange rates and terms of trade in the Argentine Republic, 1913-1976"  
op cit, Tables 1 and 2

appreciate in spite of gloomy world market conditions. Special taxes and trading arrangements became commonplace for traditional exports, but the maintenance of a reasonable real export exchange rate left the door open for new nontraditional exports when external circumstances permitted.

Exchange rate devaluations were not the only measures undertaken by the active countries to restore balance of payments equilibrium: there was also increased tariffs, import and exchange controls and, as noted for Argentina, multiple exchange rates. Contrary to what would happen in the late 1940s and 1950s, exchange rate and protectionist policies reinforced each other as import-repressing mechanisms. Indeed, by the mid-1930s in many of the active countries there may have been some redundancy in this formidable battery of measures; P.T. Ellsworth has argued this point in his valuable study of Chile in depression.<sup>9/</sup> For the Colombian case, David S.C. Chu has argued that most of the change between 1927 and 1936 in the price of imported nontraditional manufactures was due to the devaluation of the peso rather than tariff increases.<sup>10/</sup> This does not deny that for some industries increases in effective protection played an important stimulative role; examples for Colombia include cement, soap, and rayon textiles.

The small passive countries appear to have been as impotent regarding protection as with exchange rate management. Cuba actually lowered tariffs in 1934, undoing much of the protectionist effect of the anomalous Tariff Act of 1927. This action was undertaken as part of the Reciprocity Treaty of 1934 with the United States; the United

States lowered tariffs for 35 Cuban products while Cuba granted reductions on 426 items. The United States Jones-Costigan Sugar Act of 1934 imposed quotas on imports from Cuba, although setting a premium over the prevailing world price to assure deliveries and protect producers in the United States. The Cuban share of the U.S. sugar market was 52 percent during 1926-30, falling to 29 percent in 1935-39. The U.S. share in all Cuban imports rose from 60 percent in 1926-30 to 68 percent in 1935-39.<sup>11/</sup> Even larger countries were pressured into reversing some of their early tariff increases; wielding the threat of Commonwealth preferences and import quotas on meat, the United Kingdom obtained tariff concessions from Argentina under the controversial Roca-Runciman treaty of 1933. Argentine tariff revenues expressed as a percentage of the value of merchandise imports, which had increased from 17 percent in 1929 to 29 percent in 1933, fell to 22-23 percent in subsequent years.<sup>12/</sup> Several Latin American countries, on the other hand, met Japanese competition in textiles with a vigorous use of import duties and quotas.

Abandonment of convertibility stemmed the decline in money supplies which occurred even in active countries during the early stages of the crisis. By the late 1930s, money supplies in active countries exceeded 1929 levels. Table 6 contrasts the Cuban case, where money supply shrank by about 40 percent, with those of Argentina, Brazil, Chile, Colombia, Mexico, and Uruguay. Interest rates for 1935-39 appear lower than those registered at the height of the crisis (1930-32), and lower than those of the late 1920s. In Argentina, for example, interest rates on 90 days time deposits were 6 percent at the end of 1929; averaged 4.3 percent during 1930-32; and oscillated between 2 and 3 percent for the rest of the decade.



Table 6

Nominal Money Supply

(1929 = 100)

	<u>1925-29</u>	<u>1930-34</u>	<u>1935-39</u>
Argentina	100.0 <sup>a</sup>	90.6	110.8
Brazil	91.9	108.8	175.0
Uruguay	90.7	103.2	130.4
Chile	97.8 <sup>b</sup>	109.0	213.4
Colombia	111.0	92.6	159.0
Mexico	86.1	97.1	211.2
Cuba	107.6	56.7	60.9
United States	98.5	83.0	117.0

<sup>a</sup>Refers only to 1926, 1927, 1928, and 1929

<sup>b</sup>Refers only to 1928 and 1929

Sources and method: Cuban data from Henry C. Wallich, Monetary Problems of an Export Economy: The Cuban Experience 1914-1917, Cambridge, Harvard University Press, 1950, pp. 38-76 and 152. Chilean data from P.T. Ellsworth, op cit, p. 171. United States data from Appendix A, Table A-1, in Milton Friedman and Anna Jacobson Schwartz, A Monetary History of the United States, 1867-1960, Princeton, Princeton University Press, 1963. Mexican data from Leopoldo Solis, La Realidad Economica Mexicana: Retrovision y Perspectivas, Mexico DF, Siglo XX, 1970, pp. 104-105. Others from national sources. Data refer to money supplies at the end of the year. Definitions of the stock of money vary slightly from country to country; definitions are closest to "M<sub>1</sub>".

There has been some controversy as to whether the active countries followed, during the early 1930s, fiscal policies which could be characterized as 'Keynesianism-before-Keynes.' The argument has been most lively for Brazil, and centers on the magnitude of planned fiscal deficits and their financing. In his pioneering work Celso Furtado argued that domestic coffee price-support programs led to fiscal deficits having an expansionary effect on aggregate demand. Later research noted that much of this expenditure was financed either by new taxes or foreign loans.<sup>13/</sup> It now appears that in Brazil as well as in other countries, the authorities remained on the whole committed to fiscal orthodoxy, certainly during the early 1930s. Large fiscal deficits financed by money creation occurred, but as a result of unusual political circumstances, such as the Sao Paulo rebellion in 1932; political turmoil in Chile during late 1931 and 1932, including a short-lived socialist government; the war between Peru and Colombia over Leticia in 1932; and the Second Chaco War between Bolivia and Paraguay, also in 1932. In some countries fiscal orthodoxy was buttressed by memories of massive public works and deficit-financing during the 1920s by corrupt governments, such as the dictatorships of Leguia in Peru and Machado in Cuba.

Even if there is little evidence that the full-employment fiscal surplus was reduced to maintain aggregate demand, in most activist countries public expenditures seem to have been reduced by less, or expanded more, than private expenditures. The share of government in GNP rose in all active countries during the 1930s. On the revenue side there were important changes with the share of custom taxes falling, as may be seen in the following data for Argentina and Brazil:<sup>14/</sup>

	Custom revenues as percentage total current revenues	
	<u>Argentina</u>	<u>Brazil</u>
1925-29	58	51
1930-34	44	43
1935-39	33	42

Both Argentina and Brazil witnessed a remarkable expansion in non-customs current public revenues, which by 1932 (Argentina) and 1933 (Brazil) exceeded the levels reached in 1929, at current prices.

One may conjecture that fiscal policy in active countries exerted at least a modest balanced-budget-multiplier type of expansionary effect on aggregate demand during the early 1930s. During the second half of the decade such an effect was reinforced by a cautious increase in domestically-financed deficits, a process encouraged by increasingly self-confident cheap-money policies isolated from the rest of the world by exchange controls.

The rising share of public expenditure in GNP had more than Keynesian significance. Governments became committed to promoting both growth and structural transformation. The Lazaro Cardenas administration (1934-1940), for example, accelerated the land reform program of the Mexican Revolution, and in 1938 nationalized the petroleum industry. Governmental regulatory functions expanded; the 1930s also witnessed the strengthening and creation of public institutions granting medium and long-term credits, although the large-scale public involvement in industrial credit was to wait until the 1940s. In an interesting conjecture, Fernando Henrique Cardoso and Enzo Faletto have argued that in countries where the export economy was controlled by national groups that had succeeded in forming an important industrial sector before the crisis, domestic policies took

on a more pro-private-enterprise cast, while in countries where exports were controlled mainly by foreign-owned enclaves the state took a more active role after the crisis relative to private enterprise. But the private sector was not excluded from economies where state participation was preponderant, nor was the public sector absent in the initial stages of import substituting industrialization, even in countries of liberal tradition.<sup>15/</sup>

Governments and public opinion showed a keener interest in increasing the national share in value added by foreign-owned activities; those enterprises also came under closer scrutiny and supervision by host countries. Some traditional export activities witnessed a rise in the share owned by domestic capitalists; that was the case, for example, for Cuban sugar.

We can now summarize the automatic and policy-induced mechanisms of adjustment triggered by the exogenous shocks Latin America received during 1929-33. The increase in the international price of manufactures relative to that for primary products, which was expected to continue for the foreseeable future, by itself encouraged the expansion of domestic manufacturing at the expense of rural activities. But besides manufactured importables and primary exportables, the Latin American economy of the 1930s had a third category of goods which may be called non-traded. Regardless of the exchange rate policy followed, a small country subject to an exogenous worsening of its international terms of trade will witness over the long run a decline in the price of its non-traded goods relative to the price of importable goods, further encouraging a movement of resources toward the import competing sector. Under a gold-exchange standard with fixed rates and with collapsing international prices

for both imports and exports non-traded prices will have a long way to fall; such deflation is likely to be protracted and painful. Countries willing and able to devalue their exchange rate can move toward the new constellation of relative prices speedily, limiting both price and monetary deflation. This is what the active Latin American countries managed to do by 1931 at the latest, while passive countries allowed price and monetary deflation to run its course. The real exchange rates shown in Table 3 can be taken as proxies for the domestic price of importable goods relative to the non-traded goods price. It is only a proxy because it does not take into account increments in protection, due either to tariffs or quantitative restrictions, while using the United States cost of living as an indicator of international prices for Latin American importable goods. While the neglect of protection underestimates the increase in the relative price of importables, the second consideration probably contributes toward overestimation.

Policy makers who permitted budget deficits, abandoned gold convertibility, and allowed the exchange rate to depreciate did so, on the whole, moved by survival instincts rather than inspired by the writings of economists, either defunct or live. But in some countries the institutional structure was compatible with those actions, while in others it was not.

#### Performance

The 1930s belong to the pre-national accounts era. Table 7 pulls together available ex-post estimates for G.D.P. growth during the 1930s and 1940s. The four largest Latin American countries (Argentina, Brazil,

Colombia, and Mexico) do register growth rates superior to those of Canada and the U.S.A. for the 1930s. Neither the absolute G.D.P. growth for the 1930s nor its level relative to the growth achieved during the 1940s, however, are impressive. In the cases of Argentina and Colombia, G.D.P. seems to have expanded during the 1920s at clearly faster rates than those shown for the 1930s. For Brazil, the major source used in Table 7 indicates an annual GDP growth rate marginally higher for 1920-29 than for 1929-39; for Mexico the opposite is the case comparing 1921-29 with 1929-39.

Measurements of Gross Domestic Product do not take into account losses of real income arising from deteriorating terms of trade. If these were taken into account, the aggregate Latin American performance during the 1930s would look worse relative to those within the region for the 1920s and 1940s, as well as in comparison with the industrialized countries during the 1930s.

Table 8 subdivides the evolution of GDP into four plausible periods: crisis (1929-33), recovery (1933-39), war (1939-45) and postwar (1945-49). It can be argued that in several Latin American countries recovery started before 1933; data, however, do not warrant much preoccupation at this stage with turning points. Table 8 indicates that for the four largest Latin American countries neither the crisis nor the recovery were as sharp as those in Canada and the U.S.A. It should be borne in mind that value added in rural activities made up a large share of GDP in those days; even for Argentina, the country with the highest per capita income, rural activities made up nearly one quarter of GDP in 1929, according to the major source used in Tables 7 and 8.

Table 7

Real Gross Domestic Product at Factor Cost  
(Average annual percentage rates of change)

	<u>1929-39</u>	<u>1939-49</u>
Argentina	1.6%	3.0%
Brazil	3.0	3.8
Chile	0 <sup>a</sup>	3.3 <sup>d</sup>
Colombia	3.8	3.7
Honduras	-1.0	3.8
Mexico	2.1	5.9
Uruguay	1.0 <sup>b</sup>	3.4
USA <sup>c</sup>	0.3	4.5
Canada <sup>c</sup>	0.5	5.5

<sup>a</sup>Refers to 1929-40

<sup>b</sup>Refers to 1930-39

<sup>c</sup>Refers to Gross National Product

<sup>d</sup>Refers to 1940-49

Sources: Basic data for Argentina, Brazil, Chile (1940-49), Colombia, Honduras, Mexico, Uruguay (1939-49) obtained from: Naciones Unidas, Cuadernos de la CEPAL, Series Historicas del Crecimiento de America Latina, Santiago de Chile, 1978.

Basic data for Uruguay (1930-39) obtained from: Julio Millot, Carlos Silva, Lindor Silva, El Desarrollo Industrial del Uruguay; de la crisis de 1929 a la posguerra, Montevideo, Universidad de la Republica, Instituto de Economia, 1972, p.251, Cuadro #23.

Basic data for the USA obtained from: Council of Economic Advisers, Economic Report of the President, U.S. Government Printing Office, Washington, D.C. 1974.

Basic data for Canada obtained from: M.C. Urquhart and K.A.H. Buckley, editors, Historical Statistics of Canada, Cambridge: At the University Press, 1965, pp. 132 and 475.

Basic data for Chile (1929-40) refers to an index for "aggregate" output, made up by five basic sectors which during 1950-57 made up about one half of Chilean GNP. See Marto A. Ballesteros and Tom E. Davis, "The Growth of Output and Employment in Basic Sectors of the Chilean Economy, 1908-1957", Economic Development and Cultural Change, Vol. XI, No.2, Part I, Jan.1963, pp.152-177

Table 8

Real Gross Domestic Product, At Factor Cost  
(Total percentage changes)

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	<u>1929-33</u>	<u>1933-39</u>	<u>1939-45</u>	<u>1945-49</u>
Argentina	-9.7%	29.2%	13.2%	18.9%
Brazil	2.6	31.6	15.0	26.5
Colombia	9.9	31.6	16.8	23.3
Honduras	-8.6	-2.0	23.1	18.6
Mexico	-10.3	37.2	43.3	24.0
Uruguay	na	na	10.4	26.1
Chile <sup>b</sup>	-36.9	50.6	33.3	9.9
USA <sup>a</sup>	-30.5	48.0	69.6	-8.8
Canada <sup>a</sup>	-29.8	50.0	63.1	5.1

<sup>a</sup>Refers to Real Gross National Product

<sup>b</sup>Until 1945, Chilean data refers to the Ballesteros-Davis index for "aggregate" output, made up by five basic sectors which during 1950-57 made up about one half of the Chilean GNP.

na = Data not available.

Sources: As in Table 7.



Economic performance during the 1930s for at least the largest Latin American countries looks more impressive when attention is focussed on manufacturing. While manufacturing growth during the 1940s exceeded that for the 1930s in most countries, as shown in Table 9, the Latin American growth rates clearly exceed those of Canada and the USA for the 1930s.<sup>16/</sup> In the important case of Brazil, manufacturing growth during the 1930s was significantly higher than during the 1920s (not shown); Colombian industrialization in the 1930s could not have been much behind the pace of the 1920s, if at all.

It is generally accepted that pre-1929 Latin American manufacturing grew pari passu with the rest of the basically export-oriented economy. Beyond some moderate protectionism, public policy departed little from a neutral attitude toward industry. Important segments of manufacturing relied directly on the export of (slightly) processed primary products; examples include meat-packing plants in the River Plate and sugar mills in several countries. Growth of manufacturing during the recovery phase of the 1930s relied overwhelmingly on import substitution. Comparing Tables 10 and 8 it may be seen that manufacturing expansion far exceeded that of GDP during 1933-39; note that this was not the case for Canada and the USA. Also in contrast with those two industrialized countries, manufacturing growth during 1933-39 for most Latin American countries shown in Table 10 exceeded that achieved during the war.

If there was an engine of growth in Latin America during the 1930s, that engine was import substituting industrialization. Not surprisingly, the uneven performance by different sectors implied by such a proposition can also be found within manufacturing. Even as some manufacturing

Table 9

Real Manufacturing Output at Factor Cost  
(Average Annual Percentage Rates of Change)

	<u>1929-39</u>	<u>1939-49</u>
Argentina	3.1%	3.5%
Brazil	5.0	7.2
Chile	3.3 <sup>c</sup>	4.8
Colombia	8.8	6.7
Honduras	1.4	6.1
Mexico	4.3	7.5
Uruguay	5.2 <sup>b</sup>	5.7
Cuba	-1.6 <sup>d</sup>	4.8
USA <sup>a</sup>	-0.6	6.1
Canada <sup>a</sup>	0.8	7.5

<sup>a</sup>Refers to Index of Total Manufacturing Output

<sup>b</sup>Refers to 1930-39

<sup>c</sup>Refers to 1927-39

<sup>d</sup>Refers to 1930-39

Sources: Basic data for Argentina, Brazil, Colombia, Honduras, Mexico, and Uruguay (1939-49) as in Table 7. Basic data for Uruguay (1930-39) also as in Table 7.

Basic data for Chile obtained from: Oscar Munoz G., Crecimiento Industrial de Chile 1914-1965, Santiago, Universidad de Chile, Instituto de Economia y Planificacion, 1968, pp. 160-161.

Basic data for the USA and Canada obtained as in Table 7

Basic data for Cuba obtained from Jorge F. Perez-Lopez, "An index of Cuban industrial output, 1930-58", Chapter 3 in J.W. Wilkie and K. Ruddle, editors, Quantitative Latin American Studies, Methods and Findings, Los Angeles, UCLA Latin American Center Publications, 1977, Table 3-7, p.52. The index refers to total industrial production.

Table 10

Real Manufacturing Output, At Factor Cost  
(Total Percentage Changes)

	<u>1929-33</u>	<u>1933-39</u>	<u>1939-45</u>	<u>1945-49</u>
Argentina	-6.5%	44.7%	23.5%	14.6%
Brazil	1.3	60.4	36.0	47.4
Colombia	24.8	86.0	34.8	42.0
Honduras	-13.2	32.5	31.8	37.2
Mexico	-7.9	65.3	71.0	20.8
Uruguay	na	na	22.6	41.6
Chile	-6.4	37.7	34.7	18.5
Cuba	-50.0 <sup>b</sup>	73.4	29.0	23.7
USA <sup>a</sup>	-38.6	53.6	98.3	-9.2
Canada <sup>a</sup>	-33.2	61.5	90.8	7.6

<sup>a</sup>Refers to Index of Total Manufacturing Output

<sup>b</sup>Refers to 1930-33

Sources: Basic data for Argentina, Brazil, Colombia, Honduras, Mexico, and Uruguay obtained as in Table 7.

Basic data for Chile obtained from: Oscar Munoz G., op cit, pp. 160-161, (for 1939-49); and from M.A. Ballesteros and T.E. Davis, op cit, pp. 160-61 (for 1929-39).

Basic data for USA and Canada as in Table 7.

Basic data for Cuba as in Table 9

activities closely dependent on pre-1929 export-oriented prosperity were shrinking, other activities (sometimes a handful) made dramatic output advances during the 1930s. Such leading sectors typically included textiles, building materials (especially cement), petroleum refining, tires, toiletries and food processing for the home market. Among these activities, textiles appear as quantitatively the most important, often providing more than 20 percent of the net expansion of value added in manufacturing and growing at annual rates above 10 percent during the 1930s. The main exception seems to have been Brazil, where earlier industrialization in the consumer goods sectors of textiles, shoes, clothing and foodstuffs meant that during the 1930s the most rapidly growing industries were those producing intermediate and capital goods.<sup>17/</sup>

The industrialization drive of the 1930s seems to have been quite labor-intensive and based on small and medium sized firms, many newly created. It has been estimated, for example, that from 1930 to 1937 total industrial employment in Sao Paulo grew at a rate of 10.9 percent per year; the output elasticity of employment was about one.<sup>18/</sup> Real wages appear to have been relatively constant in most countries, with the stagnant primary sector providing an ample reservoir of workers and also on the whole an elastic supply of foodstuffs. This view is consistent with the changes in relative prices noted earlier, with both the prices of exportable and non-traded goods falling relative to those of importable goods, with prices for exportable goods falling the most.

The industrialization drive squeezed installed capacity; there are frequent reports of textile mills working two and three shifts even in the early 1930s. In the Brazilian and Peruvian cases the mediocre 1920s left substantial excess capacity. Statistics do not show an upsurge in imports of machinery and equipment, although one may conjecture that there were substantial changes in the composition of these imports between the 1920s and 1930s.

There are indications that the import-substituting drive relied heavily on new entrepreneurs, including fresh immigrants from the troubled Europe of the 1930s. There was direct foreign investment in import-substitution,<sup>19/</sup> but its role seems relatively smaller than what was to be in later years.

Internationally comparable data are available for the cement industry, which in some ways can be taken as representative of the 1930s industrial success stories (although it was more capital-intensive and foreign-dominated than the textile industry). Table 11 presents apparent cement consumption first; on the whole, it confirms the hypothesis that larger and active countries performed better than North America and than smaller and passive Latin American countries, even if the implied annual growth rate of apparent consumption is far from spectacular. What is spectacular is the evolution of the share of consumption supplied domestically, shown in the last two columns, and the implied growth rates in cement production between 1928-29 and 1937-38. During those nine years cement output multiplied by more than 14 times in Colombia, by more than 6 times in Brazil and by almost 4 times in Argentina. By 1937-38 the large and active Latin

Table 11

Cement: Consumption and Output

	Apparent Cement Consumption in 1937-38 (1928-29=100)	Domestic Output as Percentage of Apparent Consumption	
		<u>1928-29</u>	<u>1937-38</u>
Argentina	153	37	92
Brazil	112	16	91
Chile	114	43	99
Colombia	118	6	74
Mexico	148	88	97
Peru	136	46	66
Uruguay	77	81	90
Cuba	34	93	93
Dominican Republic	74	0	0
Haiti	58	0	0
Central American Republics (six)	100	12	11
Canada	51	-	-
USA	63	-	-

Source: Basic data in physical magnitudes obtained from the European Cement Association, World Cement Market in Figures, Paris 1974.

Apparent consumption refers to cement production plus imports less exports.

American countries had become practically self-sufficient in cement. Such rapid transformation, incidentally, leaves one a bit puzzled as to the barriers to greater local cement production during 1928-29 in countries such as Brazil and Colombia, especially in contrast with the Cuban and Mexican cases. Proximity to the USA may have encouraged greater direct foreign investment in cement in the last two countries before the Great Depression.

Changes in income distribution during the 1930s are unclear. In the industrial sector higher prices for import-competing goods combined with a fairly elastic labor supply must have generated large profits. Yet important redistributive structural changes occurred in the rural sectors of a number of countries, partly induced by the weakening of traditional land-intensive exports. Thorp and Bertram note that in Peru with the decline of the landowners' authority there was an increase in the equality of the distribution of rural income; a similar trend appears to have taken place in Cuba. The acceleration in the Mexican land reform has already been noted; in Colombia the Alfonso Lopez administration carried out less dramatic but significant land and tax reforms.<sup>20/</sup>

To summarize regarding performance: during the 1930s large and active Latin American economies showed an impressive capacity to transform, generating new leading sectors within manufacturing. By the late 1930s those economies had become more self-reliant; in spite of GDP growth, import volumes (with 1928-29=100) by 1938-39 had dropped to 72 in Argentina, 70 in Brazil, 87 in Colombia, 56 in Chile, and 72 in Mexico (data as in Table 1). The performance of small

and passive economies seems to have been poorer. Even though traces of response to the new constellation of international prices can also be seen in those economies, and although they appear to have also engaged in some import substitution (even in Cuba import-replacing activities such as milk-processing and cotton cloth expanded rapidly) those efforts were weak relative to both the depressive forces originating in their primary sectors and to the industrialization drives of the active and large countries. In those small countries with a large and flexible subsistence sector, in Central America the welfare consequences of this involution were better than in Cuba, where the rural sector provided little room for those unemployed in export and related activities. It may also be noted that some small countries which were then outright colonies, such as Jamaica, Puerto Rico, and the Philippines benefitted from 1930s metropolitan protectionism. Thus Puerto Rican and Phillipino sugar exports rose while those of Cuba sank, and Jamaican banana exports to Britain gained at the expense of those from Central America.

There is truth in the assertion that the Latin American countries which performed reasonably well during the 1930s were those which had large domestic markets and some pre-1929 industrial base, as in the cases of Argentina, Brazil, Colombia and Mexico. But this fails to explain the contrasting performance of Chile and Uruguay, on one side, versus that of Cuba. These three countries in 1929 had reached roughly similar levels of population and income. In contrast with Chile and Uruguay, however, Cuba did not have a Central Bank during the 1930s, maintained its currency rigidly pegged to the U.S. dollar



and, as already noted, actually lowered tariffs in 1934. One may conclude that a minimum size in the domestic market plus a minimum degree of autonomy regarding the exchange rate, fiscal and monetary policies were necessary conditions for industrialization during the 1930s in Latin America.

#### Final Observations

The key role given in this paper to the exchange rate as a variable which can stimulate growth and avoid monetary deflation may be found in the literature, both for Latin America and elsewhere. Milton Friedman and Anna Jacobson Schwartz have noted that from 1929 to 1931 China was hardly affected internally by the crisis; China had a silver standard which was equivalent to a floating exchange rate with respect to gold-standard countries. During 1929-31 its currency luckily depreciated, a situation reversed when Britain and then the United States abandoned the gold standard.<sup>21/</sup> The silver standard had served well countries adhering to it in an earlier Great Depression; during 1873-94 income grew significantly more rapidly in silver-standard countries than in those adhering to the gold standard.<sup>22/</sup> The good performance of the Swedish economy during the 1930s has been credited in part to the large depreciation of the krona in 1931.<sup>23/</sup> Dudley Seers used a typology similar to that used in this paper to discuss Latin American economic performance during 1929-58, grouping together eleven countries following a dollar exchange standard, which consistently had high dollar or gold backing for the local currency and little exchange control. He also notes that governments of these countries made only sparing use of import quotas or tariffs, partly because the application of trade controls was restricted by various reciprocal agreements with the United States.<sup>24/</sup>

Most mainstream economists, whether of the 1930 or 1980 vintage, would be inclined to give Latin American countries policy advice based on international trade and finance models using the small country assumption. Trade theory asserts that a truly small country facing perfectly elastic demands and supplies for its exports and imports, respectively, should follow the same trade policy, e.g., free trade, regardless of what is going on in the rest of the world. Uncertainty as to the terms of trade will not change matters much unless one is willing to attribute to government insights unavailable to the private sector. International finance theory adds that a small country will (and should) have little control over exchange rate and monetary policy; pegging to a key currency and following 'gold-exchange standard' monetary rules, including free convertibility, are the usual prescriptions for the small, regardless of external circumstances.

Like Walrasian auction markets, smallness in foreign trade and finance is a powerful theoretical construct which may be more insightful in some circumstances than others. In a world of trade quotas, convertibility restrictions or foreign tariffs which are imposed depending on the success of one's export drives, it could be that not even Andorra is small. Optimum currency area theory, stimulating as it is, gives little practical guidance for drawing the line between small peggers and large flexers. The Latin American experience of the 1930s shows that smallness in foreign trade and finance is not an intrinsic and permanent characteristic of a country, but a result of specific conditions in the world economy and changing domestic circumstances.

Foreign trade and payments policy for a Latin American-type economy should depend on what is expected to happen in (and on unexpected shocks coming from) the rest of the world.

The fine-tuning of international trade and financial policies could lead to extreme protectionism and the loss of "moneyness" for the national currency. Many Latin American countries during the 1940s and 1950s carried to excess policies initiated during the 1930s, even as world markets became more buoyant. But the advice that developing countries should design their trade and financial policies as if the state of the world economy did not matter (or as if they were small at all times) suggests evangelical fervor rather than scientific analysis or historical knowledge.

Footnotes

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1/ See, for example, Andre Gunder Frank, Lumpenbourgeoisie: Lumpendevelopment. Dependence, Class, and Politics in Latin America. New York, Monthly Review Press, 1972, Chapter 7. The decline in the role of foreign trade and capital after 1929, Frank argues, also reduced "the transfer of satellite investment resources to the metropolis" (page 75). See also A.G. Frank, Capitalism and Underdevelopment in Latin America; Historical Studies of Chile and Brazil, New York, MR Modern Reader Paperbacks, 1969, pp. 148-150. The weakening of ties between metropolis and satellite, he argues, will lead to the satellite's involution, which may be toward an isolated subsistence economy or toward a more or less autonomous industrialization, as during the Great Depression.

2/ See Albert O. Hirschman, The Strategy of Economic Development, New Haven: Yale University Press, 1958, especially pp. 173-176.

3/ See Alexandre Kafka, "The theoretical interpretation of Latin American economic development", in Howard S. Ellis, editor, Economic Development for Latin America; Proceedings of a Conference held by the International Economic Association, London: Macmillan and Co. Ltd, 1961, pp. 8-14.

4/ Charles P. Kindleberger, The World in Depression 1929-1939, Berkeley: University of California Press, 1973, Chapter 4. External conditions had been unfavorable for Cuban sugar during the late 1920s; the Peruvian and Brazilian economies had been sluggish before the Great Depression struck.

5/ Such a steep fall in terms of trade, however, was not unprecedented. The Argentine terms of trade, for example, fell by 37 percent between 1916-17 and 1921-22. See my "Exchange rates and terms of trade in the Argentine Republic, 1913-1976", New Haven, processed, January 1980, Table S-5.

6/ Qualifications to that first approximation are necessary. For example, Kindleberger argues that the devaluation of the Argentine peso during 1930 contributed to the decline in the dollar price of wheat in international markets. See his The World in Depression 1929-1939, op cit, p. 103. Brazil attempted to influence world coffee prices since the beginning of this century, and Cuba undertook similar attempts for sugar in the late 1920s. In the unusual Bolivian case, the major domestic producer of tin (Patino) had enough influence over the world market to enforce a kind of commodity stabilization scheme. See Lawrence Whitehead, "El impacto de la Gran Depresion en Bolivia", Desarrollo Economico, Volume 12, No. 45, April-June 1972, pp. 66-67.

7/ D.M. Phelps, "Industrial expansion in temperate South America", The American Economic Review, Volume XXV, 1935, p.273.

8/ Breaking from orthodoxy was not easy. In Argentina authorities who remembered the inconvertible paper standard of the late nineteenth century feared that a departure from the gold standard would lead to inflation (their fears did not come true until the 1940s). For the

hesitations in the Chilean case see Albert O. Hirschman, Journeys Toward Progress; Studies of Economic Policy-Making in Latin America, New York, The Twentieth Century Fund, 1963, pp. 178-183. Hirschman writes: "In contrast to such countries as Brazil, Argentina, Uruguay and Mexico which pragmatically opted for or stumbled on 'reflationary' techniques, Chile followed the famous 'rules of the game' strictly until mid-1931" (p. 179).

9/ P.T. Ellsworth, Chile: An Economy in Transition, New York: The Macmillan Company, 1945, p.67. In the preface to his book, Ellsworth remarks that his interest in Chile was aroused while teaching mechanisms of adjustment to balance of payments disturbances (p.vii). In the United Kingdom tariffs had been advocated before the abandonment of the gold standard as an alternative to depreciation; after 1931 both tariffs and a depreciated pound (with respect to the U.S. dollar) coexisted.

10/ David S.C. Chu, "The great depression and industrialization in Colombia", The RAND Paper Series, P-5015, January 1977, pp 19-20.

11/ Jorge I. Dominguez, Cuba: Order and Revolution, Cambridge, Harvard University Press, 1978, p. 60; and Ministerio de Hacienda, Direccion General de Estadistica, Resumenes Estadisticos Seleccionados, La Habana, 1959, p.24.

12/ See my Essays on the Economic History of the Argentine Republic, New Haven, Yale University Press, 1970, p.282. The United Kingdom percentage share in the value of Argentine merchandise imports evolved as follows:

1927-29:	18.9
1930-33:	21.4
1934-36:	24.9
1937-39:	21.0

From Essays, op cit, p.461

13/ For a review of the controversy, and new interpretations, see Albert Fishlow, "Origins and consequences of import substitution in Brazil", in Luis de Marco, editor, International Economics and Development, Academic Press, 1972. See also Eliana Anastasia Cardoso, "Inflation, Growth and the Real Exchange Rate: Essays on Economic History in Brazil", Ph.D. thesis, M.I.T., February 1979, Chapter II. Fishlow and Cardoso argue that the new taxes (or the exchange rate appreciation generated by foreign loans) improved the Brazilian terms of trade. It may be noted that during the 1930s (and before) Colombia expanded her share in the international coffee market taking advantage of the Brazilian export taxes and quotas.

14/ Data from Carlos F. Diaz Alejandro, Essays on the Economic History Of the Argentine Republic, New Haven, Yale University Press, 1970, p.490; Annibal V. Villela and Wilson Suzigan, Government Policy and the Economic Growth of Brazil, 1889-1945, IPEA, Brazilian Economic Studies No. 3, Rio de Janeiro, 1977, pp. 346-49 (Tables 117 and 118)

15/ Fernando Henrique Cardoso and Enzo Faletto, Dependency and Development in Latin America, Berkeley, University of California Press, 1978, pp. 127-128

16/ Another interesting comparison involves Argentine vs Australian performance. Between 1928 and 1938 the GDP of both countries grew approximately at the same rates; Argentine manufacturing, however, grew significantly faster than that of Australia between those years.

17/ See Albert Fishlow, "Brazilian development in long-term perspective", American Economic Review, May 1980 (forthcoming). For an excellent case study documenting the acceleration of import substitution by the Argentine textile industry during the 1930s see Alberto O. Petrecolla, "Prices,

import substitution and investment in the Argentine textile industry (1920-1939)", Instituto Torcuato Di Tella, November 1968, especially Chapter 4. Import substitution was especially fast for cotton yarn and fabrics. Petrecollla attributes the increased profitability of the Argentine textile industry to higher tariffs on final goods and the depreciated exchange rate, on the one hand, and to lower prices for raw cotton and wool, on the other. Money wage rates in the textile industry in 1936-37-38 were about 5 percent below those of 1939, and the importation of textile machinery remained duty free.

18/ Jose Roberto Mendonca da Barros and Douglas H. Graham, "The economic recovery and market deconcentration of the Paulista textile industry during the great depression: 1928-1937", processed, March 1978, p.12. Albert Petrecollla notes that during the 1930s in Argentina the increase in the number of textile firms accounted for approximately 65 percent of the increase in spindles held by the industry (op cit, p. 61).

19/ See the fascinating book of Dudley Maynard Phelps, Migration of Industry to South America, New York, McGraw Hill Book Company, Inc., 1936.

20/ See Rosemary Thorp and Geoffrey Bertram, Peru 1890-1977; Growth and Policy in an Open Economy, New York, Columbia University Press, 1978, Chapter 9; Ramiro Guerra y Sanchez, Azucar y Poblacion en las Antillas La Habana, Cultural S.A., 1944, especially the Prologue (to the third edition); Albert O. Hirschman, Journeys Toward Progress, New York, The Twentieth Century Fund, 1963, Chapter 2.



21/ Milton Friedman and Anne Jacobson Schwartz, A Monetary History of the United States 1867-1960, Princeton: Princeton University Press, 1963, pp. 361-362 and 489-490.

22/ Jeffrey B. Nugent, "Exchange-rate movements and economic development in the late nineteenth century", Journal of Political Economy, Volume 81, Number 5, September/October 1973, pp. 1110-1135

23/ Erik Lundberg, Business Cycles and Economic Policy, London, George Allen and Unwin Ltd, 1957, p. 107.

24/ Dudley Seers, "A theory of inflation and growth in underdeveloped economies based on the experience of Latin America", Oxford Economic Papers, June 1962, pp. 183-184. The eleven countries are Venezuela, Cuba, Guatemala, Dominican Republic, Ecuador, Costa Rica, El Salvador, Nicaragua, Panama, Haiti and Honduras. Seers argued: "The eleven countries... were politically better able than the remaining republics of Latin America to face stagnation or decline in domestic incomes, such as is involved for countries on the dollar-exchange standard if their exports stagnate or decline. Profits of foreign companies in export industries absorb a high proportion of export fluctuations, a big fraction of the labour force is in the subsistence sector (or can return to it), and the working classes have little political power" (p. 185).