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Author(s): Dudley Seers

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# A THEORY OF INFLATION AND GROWTH IN UNDER-DEVELOPED ECONOMIES BASED ON THE EXPERIENCE OF LATIN AMERICA

By DUDLEY SEERS

THE August 1961 issue of *Oxford Economic Papers* contains an interesting paper by Mr. G. Maynard<sup>1</sup> describing two features of the inflationary process in Argentina and Chile in the period 1946–55—fluctuations in exports and stagnant agricultural supplies. It is argued that the experience of these countries is relevant to Latin America as a whole. Let me say at the outset that Mr. Maynard has drawn attention to two important factors, and that it is good to see an economist from outside the region discounting the purely monetary explanation of Latin American inflation.

However, I think that the way in which he puts these points, and the emphasis he places on them, are rather misleading, particularly when they are generalized to cover the whole of Latin America. The mistakes which (in my opinion) he makes are not uncommon ones. So I shall start by criticizing one or two aspects of his argument, and by drawing attention to some gaps. After that, I shall put forward a theoretical model of the inflationary process in an exporter of primary products, indicate very briefly how well this theoretical model fits actual Latin American experience, and finally suggest what are in my view the lessons of theoretical and practical importance to be drawn from this experience.<sup>2</sup> At the end of the paper there is a note on the 'structuralist' school of Latin American economists, whose approach is essentially similar to what is followed here.

## A. Some Criticisms of Mr. Maynard's Paper

To start with, Mr. Maynard's remarks seem more applicable to the case of Chile than Argentina. The Argentine economic system is better able to absorb the shocks of short-period fluctuations in exports than the Chilean;

<sup>1</sup> 'Inflation and Growth: Some lessons to be drawn from Latin American experience.'

<sup>2</sup> In the discussion that follows I have drawn heavily on work on this subject in the Economic Commission for Latin America (ECLA), and on many discussions there, both individual and group. The question of acknowledgement is somewhat embarrassing, since I ought to list twenty to thirty names of colleagues in ECLA, and outside consultants, who have contributed in various ways to my education in Latin American economics. However, two people, with whom I worked particularly closely from mid-1959 to mid-1961, were the Chilean economists Osvaldo Sunkel and Anibal Pinto. Without committing them to the formulation put forward here, I would like to stress that they have each contributed more than I did to the general theoretical explanation. I have also benefited from the views of a number of economists at Yale, including Werner Baer, Carlos Diaz-Alejandro, and Joseph Grunwald, as well as from discussions after I had put forward this thesis at the Economics Club in Geneva, the Department of Applied Economics at Cambridge and Professor Kennedy's seminar at the University College of the West Indies.

for one reason, fiscal revenues are much less dependent on foreign trade, and for another, unsold exports can be more easily absorbed into the domestic economy. (Copper and nitrates are both highly inedible!)

Moreover, while the agricultural problem did, in the case of Chile, show itself in inadequate food supplies (and thus exert an upward pressure on wages and prices, as he describes), the mechanism was different in Argentina. The Argentine consumer was protected from the consequences of agricultural stagnation, by price policies which discouraged exports. The effect, as in Chile, was certainly to increase inflationary tendencies, but this was brought about by an aggravation of the import 'bottleneck', not by turning the internal terms of trade against manufacturing; during the period Mr. Maynard is dealing with, they swung the other way in fact, as he mentions at one point. So the stagnation of agricultural output in Argentina after 1945 was due partly to a fall in relative prices. After 1955 Argentine economic policy consisted largely of a tremendous and painful effort to re-establish the pre-Peron relative price structure, but for some reason the writer has largely ignored the very interesting developments of the past few years.

The other criticisms I have of Mr. Maynard's remarks are more substantial. In the first place, the *trend* in exports is more important than their *fluctuation*, when analysing inflation, as will be seen from the discussion below. This is especially true in the two cases he mentions. Neither in Argentina nor in Chile did the purchasing power of exports (i.e. the value of exports deflated by an import price index) ever regain the level of 1929, or anywhere near it, and in neither country was the upward trend in the 1950's very marked. This has meant a chronic and growing shortage of imports, exerting a chronic and growing pressure on the price level.

Secondly, I do not agree with Mr. Maynard's reference to 'excessive' industrialization, a mistaken judgement due I think to this failure to consider trends in foreign trade. His theoretical model shows that in a closed economy there will be an upward pressure on food prices if industrial output grows much faster than agricultural output, but any closed-economy model has little significance for Latin America. If imports consist largely of manufactures, and cannot, for whatever reason, be increased, growth requires rapid industrial expansion. Moreover, by working with only two categories of manufactures, capital goods and consumer goods, he misses the significance of intermediate products. The main criticism one can levy against industrialization in Argentina and Chile, as in several other countries of Latin America, was not that it was 'excessive' as a whole, but that it was unbalanced. Lagging output of several major products has been a brake on economic growth, e.g. chemicals in Chile, and steel and paper in Argentina. This has meant that imports continued to be heavy in

these lines. (Until the middle of the 1950's Chile was also still importing steel and pulp for paper.) In fact, in Chile the ratio of manufacturing to domestic product has only risen slightly since the war, and in Argentina there has been no net industrialization in this sense. One must, however, allow for a possible downward bias in indexes of industrial production which would affect this ratio (in view of the way in which it is calculated).

Thirdly, the scope of his analysis is much too restricted. He ignores the effect of lagging supplies in other sectors—notably energy and transport. The electricity shortages in Greater Buenos Aires in the latter half of the 1950's, for example, acted as an evident brake on industrial expansion and played a big role in the Argentinian inflationary process. So did the delays in rail freight services, and (because of its effects on the balance of payments) the slowness in developing petroleum resources.

I do not feel, therefore, that Mr. Maynard has drawn the right lessons from Latin American experience. Yet the recent history of this region does seem rich in lessons relevant to the whole problem of the growth of underdeveloped economies (and possibly developed economies too). I shall try to sketch briefly what I think these lessons are. The reader will appreciate that, since I am dealing with developments in twenty countries over the past three decades, I can only deal very summarily with this experience here.<sup>1</sup> (The special, though important, case of revolutionary Cuba will be left out.)

## B. A General Theory of Inflation and Growth

Let us make the following assumptions about an economy:

### *Static assumptions about the structure of production and trade*

- S1. Exports of a few primary products form a significant proportion of GDP (over 5 per cent.).
- S2. There is little or no capacity for producing various types of manufactures, especially engineering products, so that manufactures amount to a significant proportion of imports.

### *Static assumptions about factors of production*

- S3. Land distribution is very unequal; a high proportion is in partially cultivated *latifundia*.
- S4. A large proportion of the labour force consists of unskilled and under-employed workers in country districts.

<sup>1</sup> A more extensive summary was distributed as a document for the 1961 session of ECLA (United Nations: E/CN.12/563), and a revised version will shortly appear in the *Economic Bulletin for Latin America* (ECLA). The whole study, which is being published by ECLA, consists of a regional analysis and chapters showing in greater detail how the experience of Argentina, Brazil, and Chile fits this analysis. (There is also a paper on Mexico.) A statistical appendix contains the main series for population, national product, prices, exports, and imports for the period 1929–58 (in so far as data are available).

S5. The capital market is imperfectly competitive.

S6. The supply of enterprise is inelastic.

*Static assumptions about institutions*

S7. Manufacturing organization is highly monopolistic.

S8. Wage-earners have some political and industrial power.

S9. Public administration is of limited efficiency, especially in collection of direct taxes.

*A static assumption about patterns of consumption*

S10. Income-elasticities of demand differ greatly as between various commodities.

*Dynamic assumptions*

D1. The population is growing.

D2. The economic aspirations of the population are rising.

D3. There is population migration towards the cities.

D4. Consumer credit facilities are spreading.

D5. Tastes are changing (of those with given income and place of work) under the influence of foreign example.<sup>1</sup>

**Symbols<sup>2</sup>**

$Y$  = Gross domestic product.

$G$  = Purchases of manufactured consumer goods.

$I$  = *per capita* product.

$X$  = Total exports.

$X^*$  = Total exports *plus* net capital inflows.<sup>3</sup>

$M$  = Total imports.

$P$  = Population.

$I'$  = Minimum tolerable *per capita* product.

$Y'$  = Minimum tolerable gross domestic product.

$m$  = Fraction of  $G$  which is imported.

$t$  = Time.

**Version I of the Model ( $m$  is constant)**

Let us suppose we set this model in motion by assuming a steady rise in GDP. We expect the structure of demand to change, because of assumptions S10, D3, D4, and D5. There will be an additional reason, that the income distribution is likely to become more unequal if growth takes place in an economy where there is surplus labour (S4), direct taxes are low (S9), and manufacturing grows relative to GDP (see below). We can in

<sup>1</sup> This is strictly different from S10 which refers to the slopes of expenditure-income functions, assuming a given set of tastes (as well as given geographical distribution of population and given credit institutions).

<sup>2</sup> All variables expressed in capital letters are measured as index numbers.

<sup>3</sup> Net of capital outflows and profit remittances.

particular expect the demand for manufactured consumer goods  $G$  to grow more quickly than income, i.e.  $(dG/dt) > (dY/dt)$ . This is the world-wide experience, and will be reinforced in the circumstances postulated, since propensities to consume manufactures are always higher amongst the rich than the poor, and amongst the urban than the rural population; consumer credit is not normally available for primary products or services; and the foreign examples which are persuasive are those of consumption of motor-cars, household appliances, &c.

Let us suppose that the proportion of the value of manufactured consumer goods imported is constant at  $m$ , so that total imports of finished consumer goods are  $mG$ . It follows at once that  $[d(mG)/dt] > (dY/dt)$ . Since in fact income elasticities of demand are particularly high for engineering products, and these are least easily manufactured at home (assumption S2), the inequality is likely to be considerable. This model also implies that domestic production of manufactured consumer goods rises faster than GDP,<sup>1</sup> so (over the long run) imports of intermediate products and capital goods will also increase more quickly than GDP unless something very odd happens to capital-output ratios. But imports consist mostly of manufactures (S2), and there is no reason to expect other types of imports to grow more slowly than GDP, therefore total imports ( $M$ ) will also grow faster than GDP, i.e.  $(dM/dt) > (dY/dt)$ .

Ignoring international capital flows for the present, so that trade is balanced ( $X = M$ ), this can be translated into the statement that the national product will grow more slowly than exports,  $(dY/dt) < (dX/dt)$ .

This is the condition for dynamic equilibrium in economic terms.

Whether an adequate rate of economic growth is possible depends therefore on export performance. If exports are climbing fast enough, the changing pattern of demand can be accommodated by imports of various types rising as necessary to avoid shortages appearing.

But what is an 'adequate' rate of growth? This depends on how fast the population is growing (D1) and how rapidly aspirations are rising (D2). The former can be measured: the latter can be defined as  $dI'/dt$ , the minimum long-run rate of growth of *per capita* output compatible with lack of social upheaval.<sup>2</sup> This is admittedly a vague concept, but I think that its use will be justified in the discussion that follows.  $I' \times P = Y'$ , the minimum tolerable GDP. Therefore,

$$\frac{dY'}{dt} = \frac{dP}{dt} + \frac{dI'}{dt}. \quad (1)$$

<sup>1</sup> I exclude processed foodstuffs from the definition of manufactured consumer goods.

<sup>2</sup> Upheaval could result not only from poverty but also from unemployment. This brings in additional variables, such as labour participation rates, and I prefer to use *per capita* output as the determinant of political stability. (If *per capita* output is rising fast enough, unemployment will dwindle.) Naturally, unrest can also occur for non-economic reasons.

But the condition for social equilibrium is  $(dY/dt) \prec (dY'/dt)$ .

So the condition for full dynamic equilibrium, economic *and* social, is:

$$\frac{dX}{dt} > \frac{dP}{dt} + \frac{dI'}{dt}. \quad (2)$$

In words, the rate of expansion of exports (in percentage terms) must exceed the rate of growth of the population by a substantial margin.

Suppose that exports have been rising at an 'adequate' pace, on this definition, but that this pace slows down. Then on the model developed here (which I shall call Version I), the rate of economic growth will fall, and will cease to be politically tolerable (in the long run).

### Version II of the Model (*m* declines)

Here, however, we can introduce a major variant in the model. If the proportion of manufactures which is imported, *m*, falls, then the following is possible:

$$\frac{dM}{dt} < \frac{dY}{dt} \quad \text{so that} \quad \frac{dY}{dt} > \frac{dX}{dt}.$$

Under what conditions can such a fall occur? The ratio *m* can be reduced to certain levels in almost any economy: if this ratio is currently much higher, the domestic product will be able to grow more rapidly than imports for a time. But there is, for technical reasons, a lower limit to *m* for each economy, set by the sizes of market required for various manufacturing processes. This limiting size is quite small for (say) shirt-making, but much larger for motor-car manufacture. The actual market in any country for any product will be determined by the size of population, the level of *per capita* income, and the degree of equality in income distribution. These three variables therefore set minimum values to *m* (not rigid minima, but levels at which further industrialization rapidly becomes very costly).

Let us now concentrate on what happens in economies which meet the problem by industrialization, so that their products can keep growing more rapidly than the trend in exports would permit. It should be recognized at once that the decline in *m* is associated with the rate of urbanization. This has two consequences. One is that an urban proletariat appears, with significant political power. This proletariat (having fixed monetary commitments) cannot tolerate persistent chronic unemployment; so as *m* falls,  $dI'/dt$  is raised, and therefore  $dY'/dt$  . . . see (1). Secondly, urbanization is one of the factors causing a rapid growth of demand for manufactures, and since it is likely that industrialization also accelerates changes in taste and in income distribution, the pattern of demand is altered more rapidly in this variant, causing the gap  $[(dG/dt) - (dY/dt)]$  to widen. Therefore in two respects the over-all socio-economic problem becomes more severe.<sup>1</sup>

<sup>1</sup> As against this, urbanization may eventually reduce the rate of population growth.

One might think that since the last development would only slow down the fall in  $m$ ,  $dM/dt$  would, nevertheless, be lower than  $dY/dt$ . But this may in fact not be so. The immediate effect of accelerated industrialization is to cause imports of capital goods to rise more quickly than before. It is true that, for any given industry, this extra foreign exchange requirement soon ceases, and one gets the benefit of import substitution. But, in the first place, the saving of imports is not as big as it seems because there will be new demands for imports of materials, intermediate products, and spare parts, and these imports will now rise more quickly.

Moreover, individual acts of import substitution must be seen as part of a continuing process. Each year a start is made on new industries, involving fresh requirements of imported capital goods; and progress in substitution means entering into types of production which are more and more capital-intensive. Furthermore, as industrialization proceeds, demands mount quickly for electric power, internal transport, communications, water supply, &c., which again raises the requirements for imported capital goods<sup>1</sup> and which causes imports of fuel to increase more rapidly than  $Y$  (in the case of countries without their own petroleum).

It is true that in the end, by the time a country is making its own equipment, import substitution will bring some reduction in the propensity to import, but this may not be achieved for two or three decades.

This gives us the first clue on the structural causes of inflation during a process of import substitution. Pressure is maintained on the exchange rate, and periodic devaluation is likely, particularly since import and exchange controls are not effective (S9).

There are other influences at work too. Because of the difficulties in obtaining labour, capital, and enterprise for the new industries (S4, S5, and S6), factor costs per unit of output are high. The monopolistic system of organization (S7) means that the new industries are probably created as monopolies or as branches of existing monopolies: this is particularly likely for new, protected industries. The scale of output is likely to be too small in most cases to enable full use to be made of equipment, which also implies high costs. Bureaucratic delays (e.g. in customs clearance or getting building permits) and the need for bribery may further add to cost (S9). So the import substitutes are almost certain to be more expensive than the goods they replace. Upward pressures will also be felt on factor costs in other industries, partly because of the example set by the newcomers, and partly because skilled labour, managers, and entrepreneurs will become scarce (S4 and S6).

<sup>1</sup> The transport system has to be transformed, since it has been developed to serve the purposes of foreign trade, and freight facilities between inland centres of population may be very poor.

Moreover, it is unlikely that the extra needs for facilities such as transport, energy, &c., will have been anticipated, so strains will occur, such as delays in freight, waiting for telephone installation, and load-shedding by electric generators. This raises costs throughout the economy.

The foreign exchange implications of the needs for investment have already been mentioned; but in addition the rate of saving has to rise not only to finance the construction of new factories and of the new power stations and transport systems, but also to pay for the accelerated expansion of the cities where the new industries are situated. There may be some increase in savings because of the unavailability of imported durables, but the likely effect is to upset the previous balance between voluntary savings and investment, so that local excess demand in various sectors will be increased by global inflationary pressures.

Once the price rise gets under way, there will be familiar cumulative tendencies as each class attempts to protect itself from the rise in prices. Wage increases become general (S8); prices of foodstuffs rise because of inelastic supply in agriculture (S3); and those of manufactures in response to climbing costs (S7). The salary increase in the civil service and public utilities creates further problems. Since tax revenues are inflexible anyway, due to the failure to collect direct taxes, a budget deficit tends to open up. And those responsible for the price policies of public utilities face a dilemma. If they raise prices, this aggravates the general price rise and causes political troubles. But if they keep their charges unchanged, they risk aggravating symptoms of overloading, and they face a growing deficit in their accounts, which increases global inflationary pressures.

At a later stage, long-term productive investment becomes discouraged in favour of more speculative uses of capital, such as hoarding inventories, buying foreign exchange, and building apartments and shops for the higher income groups. This aggravates structural problems of supply. Personal saving becomes discouraged too, and the whole burden of closing *ex post* the global imbalance between savings and investment falls on corporate profits. In due course exports are penalized (especially if the exchange rate is kept overvalued in order to check price rises), and this makes the original problem, the foreign exchange shortage, more acute.

### Monetary Implications

It is true that some expansion in the supply of money is a necessary condition for this process to go very far<sup>1</sup> (though one must expect some elasticity in the velocity of circulation). A restrictive monetary policy would, however, only permit the necessary rate of growth to be combined with price stability if the price rises due to the influences mentioned above were offset

<sup>1</sup> More strictly an expansion in the supply of money faster than that of real GDP.

by price falls in other sectors. Since the upward pressures are strong, and cover wide areas of the economy (through rising prices of imports, skilled labour, &c.), and unskilled wage-earners and existing firms are assumed to have some defensive strength, this is very unlikely. Moreover, it is hard to see by what means the necessary rise in investment can be achieved if the money supply is not increased quite rapidly.

The consequence of a strict monetary policy would be to keep  $Y$  linked to  $X$ . In fact the first version of this model was essentially an orthodox-money or 'gold standard' model, and this version only obtains price stability at the cost of almost complete dependence on exports.

One should add that the working of the model may be substantially modified by a rising inflow of capital. Provided this is growing faster than profit remittances, it enables imports to grow faster than exports, and thus changes the equilibrium condition (2) to

$$\frac{dX^*}{dt} > \frac{dP}{dt} + \frac{dI'}{dt},$$

where  $X^*$  refers to exports *plus* net capital inflows.<sup>1</sup> (Conversely, of course, a change from an inflow to an outflow of capital, or rising remittances of profits when foreign capital investment is constant, aggravates any basic disequilibria.) As well as thus affording relief to structural pressures, an increasing inflow of capital also, of course, helps close any global imbalance between *ex ante* savings and investment, or—from another point of view—permits investment to rise without a big monetary expansion.<sup>2</sup>

### Other Possible Processes

There are other possible ways in which inflation could develop. Suppose that an economy is in dynamic equilibrium (in the sense that exports, and thus imports, are rising fast enough to enable the structure of supply to be adapted smoothly to the changing structure of demand) but that output in one important sector suddenly starts to grow much more slowly or stops growing altogether. Then structural problems of supply will emerge, as before, if the total rate of growth does not slow down. Imports of the commodity concerned may rise more rapidly (or fall more slowly) than hitherto, causing a shortage of foreign exchange, or else there will be unsatisfied demands in internal markets, leading to rising prices.<sup>3</sup> The danger of a lag in agriculture is an obvious one (see assumption S3), and

<sup>1</sup> This is close to the concept 'capacity to import', used in many ECLA documents. Capital inflows are net of outflows and profit remittances.

<sup>2</sup> But fluctuating capital flows, which must be expected if foreign firms own a substantial proportion of property, play havoc with monetary policy.

<sup>3</sup> In the case of a sector producing for export, a slowing down in its growth would have the same effect as a weakening in commodity markets.

could lead rather directly to wage increases because of the importance of food to wage-earners. (This is where Mr. Maynard's case of lagging agricultural output comes in.<sup>1</sup>)

Similarly, imbalances will arise if attempts are made to accelerate over-all growth without accelerating growth in each major sector, unless the pace of export expansion also quickens. This process could be started if the population increase accelerated, or aspirations started to rise more quickly, lifting  $dY'/dt$  to a higher level.

It is in theory quite possible for a growing economy to be afflicted by both a chronic foreign exchange crisis and an agricultural problem which would, of course, greatly increase the difficulty of avoiding inflation on Version II of the model. (On Version I the rate of growth would be lower for any given rate of expansion of exports.) In fact, if the expansion of exports is fast enough, internal sectoral lags can be of but limited effect—tensions arise only because in some cases it takes time to increase supplies (e.g. electric power) or freight is relatively expensive (e.g. bulk foodstuffs).

Theoretically, of course, price rises could also start for internal reasons, for example due to the emergence of a budget deficit unconnected with trade fluctuations. This would reduce exports by raising costs and by simultaneously encouraging local consumption of exportable supplies.<sup>2</sup> The result would be a shortage of foreign exchange which would lead to the same structural problems as occur when an exchange crisis is due to purely external influences, or to sectoral lags.

### C. Evidence from Latin American Experience

#### The Assumptions

The first question is how valid are the assumptions of this model for Latin America? A very slight acquaintance with the region suffices to show that the assumptions are valid to different degrees in different countries, though it will be evident from the foregoing that by no means all of the assumptions are necessary ones for the model.

In most of the region the picture presented by assumptions (S3–S6) on the factors of production seems broadly correct. The majority of countries still show the effects of the land grants to the officers of the Conquest, which imposed an alien property-owning class on an Indian population; the remainder still reflect the slave-owning plantocracies. Large fractions of

<sup>1</sup> It is also possible for fluctuations in exports to set in motion price inflation (Mr. Maynard's other case) even if these fluctuations are around a trend which is itself satisfactory. There is no space to develop a short-period model here.

<sup>2</sup> The vulnerability of exports to local inflation depends largely on the importance of local costs in the selling price and on the possibilities of absorbing internally more of the export commodity. Exports of foodstuffs and raw textiles are likely to be most affected, whereas those of petroleum, metal ores, and beverages are least vulnerable.

the labour force work as tenants or farm labourers or smallholders, at considerable distances from the main urban centres, and receive little education. They are illiterate (sometimes not even speaking Spanish). The upper class consists of large landowners, often absentees. In such a society the field from which industrial entrepreneurs can be drawn is limited, and the values of such a society do not encourage industrial enterprise. Capital markets function badly in countries of this type. Banks are either foreign-owned or dominated by a few local families who receive preferential treatment in loans; stock markets are non-existent or relatively underdeveloped; financial intermediaries (such as insurance companies) play a very limited role. The most highly integrated countries, in a social or economic sense, are Argentina and Uruguay, where the supply of factors, whether from the point of view of the economy as a whole or individual sectors, is much more elastic. At the other extreme are the unindustrialized, racially and socially fragmented countries of the Caribbean and Central America (though not so much Mexico, which has experienced a number of revolutions and land reforms) and also Bolivia, Ecuador, and Paraguay.

In assessing assumptions S1 and S2, let us take the position in 1929, when Version II started to operate. (Its very operation has modified the picture in the meantime.) Only Argentina had a big manufacturing sector then, though there was also significant manufacturing activity in (southern) Brazil, Mexico, Chile, Colombia, and Uruguay. Imports of manufactures were, however, everywhere economically important, and accounted for the great majority of imports, even in Argentina; they were financed by exports of a small number of primary products (often a single commodity). S1 is still true throughout the region; S2 applies everywhere except in Brazil, Argentina, Mexico, Chile, and Columbia (and even in these cases imports of manufactures have been only limited in recent years by using vigorous controls).

The extent to which the institutional assumptions are valid show more variety. Almost everywhere manufacturing is monopolistically (or oligopolistically) organized, but labour organization is correlated with industrialization (being strongest in Argentina), and so possibly is the efficiency of public administration, though more weakly.

On patterns of consumption there is little information. Changes can be seen in Venezuela during the 1950's,<sup>1</sup> and these were so big that they form powerful supporting evidence.<sup>2</sup>

<sup>1</sup> See *Memoria del Banco Central, seriatim* (Caracas).

<sup>2</sup> A comparison of consumption patterns in Panama in 1946 and 1956, where *per capita* incomes showed little change, suggests that the pattern of consumption could change with time, even in a stagnant economy. (Assumptions D3 to D5 can hold simply because of the passage of time.) See *Economic Development of Panama* (ECLA).

There is no lack of evidence on population increase and urbanization.<sup>1</sup> But on the climbing economic aspirations of the population, growth of consumer credit facilities, and changing tastes, I can only say that these are obvious to anyone who has lived in the region.

### Countries without Strong Import Substitution (Version I)

In any long-term analysis of the region's economic development it is necessary to split the area into two groups. One group consists of eleven countries—Venezuela, Cuba, Guatemala, the Dominican Republic, Ecuador, Costa Rica, El Salvador, Nicaragua, Panama, Haiti, and Honduras; these all maintained in the years 1929–58 what can be called a dollar-exchange standard, with a consistently high dollar (or gold) backing for the local currency, and little exchange control.<sup>2</sup> They conform to Version I of the model.

So far as one can judge from statistics available, which are poor and which do not go back earlier than 1945 (except for Venezuela, Ecuador, and Honduras), the long-period growth rate of these countries has been highly correlated with export performance.<sup>3</sup> This appears to have been true for shorter periods too; there was some slowing down in both in the 1950's.<sup>4</sup> In Ecuador, for example, it can clearly be seen that the growth rate of the whole economy slowed down after 1955 when the export boom slackened.<sup>5</sup>

The import coefficient generally shows a gradual upward tendency. The governments concerned made only sparing use of import quotas and tariffs during this period; the application of trade controls was in fact restricted by various reciprocal trade agreements with the United States. In any event, in nearly all these economies the minimum value of  $m$  (proportion of manufactures imported) was high. Inflation appears to have been moderate throughout the past three decades (with the exception of brief bursts in Ecuador and Nicaragua). It followed the course of United States price movements, apart from the war years, when the typical equilibrating mechanism of the dollar-exchange standard was impaired by shortage of imports. Price rises in all cases slowed down after 1951. Most members of this group had in 1958 the same exchange rate *vis-à-vis* the United States dollar as in 1929 (and the Venezuelan bolívar had actually appreciated.)

<sup>1</sup> e.g. *A Preliminary Study of the Demographic Situation in Latin America* (ECLA).

<sup>2</sup> Sterling-exchange standard economies, such as Jamaica and Trinidad, showed similar patterns of economic behaviour in a number of important respects.

<sup>3</sup> The statistics needed to document these statements will be found in the ECLA report mentioned above.

<sup>4</sup> Though it should be borne in mind that the methods of national income estimation sometimes encourage this correlation.

<sup>5</sup> See the historical section in *Plan Inmediato de Desarrollo*, Tomo I, Junta Nacional de Planificación, Quito.

The way in which these economies operated is of considerable interest theoretically; in less open economies, calculations of elasticities may be vitiated by the operation of import controls, repeated devaluations, &c. Statistics are particularly weak for most of these eleven countries, but nearly all types of imports climbed at least as quickly as domestic products from 1950 to 1958 (data do not permit me to go back much further, and in any case imports were subject to special influences of one kind or another in the 1940's). Price movements were not such as to encourage imports (in fact in Venezuela internal prices seem to have risen less than United States prices), and this was a period when liberalization of trade was by no means being increased. Study of the experience of Ecuador, El Salvador, and Venezuela, where national income data are relatively less weak, shows that there is some tendency for imports of consumer goods to rise more rapidly than consumption, imports of capital goods than capital investment, and for imports of industrial materials to keep pace, at least, with manufacturing output.<sup>1</sup>

The eleven countries listed above were politically better able than the remaining republics of Latin America to face stagnation or declines 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. However, a glance at the list of these eleven countries indicates the political tensions that can arise in primary-producing countries which achieve price stability by maintaining restrictive monetary institutions and which neglect industrialization. It would be naïve to ascribe political developments in Cuba entirely to the fact that *per capita* exports and *per capita* income changed little during the period between 1947 and 1958, but it would be just as naïve to deny all connexion between stagnation and revolution.<sup>2</sup> When the petroleum boom subsided after 1957, the Venezuelan Government did not feel able to avoid increasing its expenditures (in view of the already heavy unemployment in Caracas), and growth has continued, but, despite big foreign loans, it has been accompanied by devaluation, import controls, higher tariffs, a reduction of currency backing, and rising prices, so that Venezuela is ceasing to be on the dollar-exchange standard.

In the past few years equilibrium in these countries has been undermined from several directions. In terms of condition (2), the rate of population

<sup>1</sup> Peru, although its behaviour was not typical of this group for most of the past three decades, did have a free import régime for most of the 1950's, and shows similar tendencies. In this case, however, relative prices moved in favour of imports.

<sup>2</sup> *Per capita* real incomes in Cuba had, in fact, shown little net change over the entire period from 1903 to 1947 (*Report on Cuba*, International Bank, p. 40).

growth has accelerated, while the upward trend in economic aspirations has soared since the Cuban revolution. Yet at the same time, commodity markets have weakened and the influx of private capital has declined. Consequently, despite increasing recourse to foreign assistance, political tensions are mounting.

### Other Countries (Version II)

The other nine countries (Mexico and the rest of South America) show a much greater variety of experience. They have, however, all followed less orthodox monetary policies than the eleven mentioned above. They have also all experienced faster rises in income than in exports in the past three decades (with the possible exceptions of the smaller countries, for which data are not available). On the other hand, they have all experienced moderate-to-fast inflation which continued (in most cases accelerated) when export markets weakened in the 1950's. In each quinquennium, almost without exception, every member of this group has experienced more rapid inflation than any member of the other group. It should be added that they have had more incentive to attempt to stimulate growth, since they contain large urban working-classes which need employment to avoid starvation and eviction from their dwellings; but these economies also enjoy greater physical possibilities for compensatory finance, having developed larger manufacturing sectors already by the 1920's, and possessing markets large enough to permit considerable industrialization.

(The two exceptions to the last sentence were Bolivia and Paraguay, which are small economies, still very backward economically. The attempt to push import substitution inevitably brings them up against the barrier of the limit to  $m$ . It is notable that during the period 1945–55 their inflations were the fastest ever experienced by any Latin American country.<sup>1</sup> In the following discussion these two cases will be ignored.)

The counterpart of this is that these countries have achieved, over the past three decades, big structural changes. An outstanding example is Brazil, where the share of manufacturing in GDP rose from about 12 per cent. in 1939–40 to over 25 per cent. in 1959–60, most of the change occurring in the 1950's. Brazil now has its own vehicle-manufacturing industries as well as plants for making electrical equipment. The 'programme of targets' has ensured that investment has continued in the basic sectors of the economy (largely through government finance, domestic and foreign). Priority has been given to this investment despite the growing acuteness of the foreign exchange problem—the ratio of imports to domestic product fell from about 17 per cent. in 1928–9 to about 7 per cent. in 1958–9.<sup>2</sup> The

<sup>1</sup> They had also been engaged in the war of the Chaco.

<sup>2</sup> Comparing imports of goods with output of goods *and* services in both cases.

very difficulty of obtaining imports has encouraged investment (again partly foreign) in private manufacturing. So economic growth has continued, despite rapid inflation, and the rise in real output and employment has in fact moderated pressures for increases in nominal incomes, as well as helping ease the shortages that are always tending to emerge.<sup>1</sup>

There is no place here to describe, even in such a summary manner, the processes of inflation in the other countries of this group, since in each case it shows somewhat unique characteristics. One or two individual features are perhaps worth mentioning, however. Mexico and Peru have had a more satisfactory experience with their exports (including tourism), and have had to make a relatively smaller structural change in the sense used here. In both these countries, inflation has been more moderate, prices about doubling in the 1950's, and showing no significant tendency to accelerate during this decade. In Argentina and Chile (and also in Colombia) the long-run inelasticity of agricultural supplies has been an additional major inflationary force, acting in the ways described at the beginning of this paper.<sup>2</sup> (In Mexico there appears to be some connexion between earlier land reforms and recent economic progress, since in general its food output has risen at a satisfactory rate.) In the same two countries, petroleum exploration has until recently been inadequate, and the failure to eliminate petroleum imports has (as in Brazil) greatly aggravated structural problems. In these two countries, therefore, inflation could arise despite relatively slow growth; in fact this very stagnation meant that all groups struggled hard to achieve rises in income, so as to avoid declines in standards of consumption, and cumulative forces have proved persistent.<sup>3</sup>

How much has the long-term weakness in Latin American exports, and thus inflation, been due to policy mistakes rather than to external causes?<sup>4</sup> This is very much a matter of opinion, but the only case where bad policy clearly has been a major adverse influence on total exports was Argentina in the years 1945 to 1952. Up to 1945, partly because of its more highly developed industrial base, and partly because it could eat its own exports, Argentina had been able to survive the depression and the war with stable prices and a moderate growth rate, meanwhile accumulating reserves of

<sup>1</sup> However, Brazil has only managed to maintain its imports, even at the low levels of recent years, by running down reserves and accumulating very heavy short-term debts; it would be wrong to conclude that this country has as yet by any means solved its basic problems. For a further discussion see the chapter on Brazil in the ECLA study on inflation, and also 'Inflation and Economic Growth—An Interpretation of the Brazilian Case', by W. Baer, in a forthcoming issue of *Economic Development and Cultural Change*.

<sup>2</sup> Jamaica is a case where agricultural stagnation appears to have set off a mild inflation despite booming exports.

<sup>3</sup> See the chapters on Argentina and Chile in the ECLA study.

<sup>4</sup> This is the question forcefully posed by Roberto Campos in a critique of structuralism, 'Two Views on Inflation in Latin America' (a paper in *Latin American Issues*, edited by Albert Hirschman). Cf. Chapter IV of the ECLA study, analysing policy experience.

foreign exchange. It then adopted a set of price, wage, and fiscal policies which simultaneously diverted exports to the home consumer and hampered agriculture, and yet the government failed to modernize the somewhat archaic capital in basic industries.

In other cases, Latin American exports roughly followed world-market experience.<sup>1</sup> There was certainly some discouragement of exports (e.g. by discriminatory exchange rates in Brazil), but to a considerable extent markets lost by one member of the region were picked up by another, and it is impossible to believe that the region's exports as a whole could have been more than trebled between 1929 and 1958; this is what would have been needed for exports to have kept pace with the total output of Latin America, thus averting the need for structural change and enabling all countries to maintain Version I of this model, and yet to achieve their actual growth rates.

The main general criticism that can be levied against financial policy is that, through price controls and subsidies, shortages in key sectors have often been aggravated. Especially noteworthy have been the failure to charge realistic prices for electricity or for passenger transport, and the actual stimulation of petroleum consumption through these two errors, and also by allowing favourable exchange rates for imports of petroleum.

In any case, whatever the origin of inflation in an underdeveloped country, a structural misfit soon develops between supply and demand through the process described above.<sup>2</sup> Consequently, from the standpoint of policy, to decide on the initial cause is rather an academic question; even if this has been monetary mismanagement, it would not follow that a sound financial policy would be a satisfactory cure.

It is interesting to note that the stabilization policies which have been pursued recently, by nearly every member of this group, have not enabled rapid growth to be reconciled with price stability, although large foreign loans were provided in conjunction with (indeed, conditional upon) the adoption of these policies, enabling imports to be increased. There were big initial declines in output, especially in construction.<sup>3</sup> In every case (except perhaps Peru) this sharp setback in output was only recovered, in *per capita* terms, with difficulty and after some delay. Price inflation has reappeared,

<sup>1</sup> See A. Maizels, 'The Effect of Industrialisation on Exports of Primary-Producing Economies' (*Kyklos*, 1961-1). Even Argentina would have been affected anyway by the long-term problems of marketing temperate-zone products in Europe, caused by protection of European farmers, preferential United Kingdom tariffs for Australia and New Zealand, and subsidized United States exports.

<sup>2</sup> In the ECLA study distortions were mostly picked out by comparing changes in supply in Version-II countries with changes in supply of the same groups of commodities in Venezuela and Ecuador.

<sup>3</sup> This is itself a very serious *long-term* loss for a developing economy. It violates common sense when an economy which badly needs schools, houses, roads, &c., leaves large sections of the construction industry unemployed.

even when there is still persistent and obvious unemployment of resources in various sectors. This is a sure sign of basic structural imbalance, as is the continued rigidity in the composition of imports.

It is scarcely possible to claim that policy weaknesses were the central cause of inflation. To support this, it would be necessary to explain the fundamentally different experiences of different countries in terms of levels of national competence, which would be hard to sustain in an area where power has been in the hands of people who show certain obvious cultural similarities. It would also be necessary to explain why inflation accelerated (or decelerated) in several different countries in the same periods, and this would require rather elaborate psychological cycles.<sup>1</sup> While not denying the significance of policy mistakes, a sufficient explanation of the main lines of the experience of the twenty republics since 1929 can be obtained by referring to the non-monetary factors already outlined.

### Policy Implications

The reduction of price distortion is a constructive feature of several stabilization plans,<sup>2</sup> but a basic and lasting cure can come only through the internal structural changes needed to enable growth to continue smoothly with further substitution for imported manufactures (especially equipment). This ultimately implies economic integration to create the markets for advanced products, and thus to make possible further reductions in  $m$ .

A pre-condition of the structural change involved, as well of making the economy sufficiently flexible during the interval until it has been achieved (so that it can cope with adverse trends and fluctuations in foreign trade) is increased factor mobility. This in turn implies the need for land reform, educational advance, and new fiscal systems, to break down the existing social structures, which are based on highly unequal distribution of property, restricted educational opportunity, and regressive tax systems. Whether such changes are possible, and how they are to be achieved, politically and administratively, lie outside the scope of this paper.<sup>3</sup>

<sup>1</sup> The question is always one of the degree of credibility of a theory. It is still intellectually possible to argue that the earth is the centre of the solar system, but it requires rather complex hypotheses to explain how this is consistent with the observed movements of the system's members, and most scientists prefer to follow the principle of making the fewest and simplest hypotheses consistent with the evidence.

<sup>2</sup> It should not be inferred that the 'realistic' price structure which results is by any means what is needed, merely that the previous structure of prices was in most cases even less helpful.

<sup>3</sup> The 'Alliance for Progress' of the United States Government is a large-scale programme of capital inflow (\$20 billion over ten years) conditional on these changes being made. It remains to be seen whether the United States Government holds to these conditions in political crises (especially if there is a danger of a Castrophile Government appearing); whether it is feasible to impose these conditions from outside, even with the best will in the world; whether Latin American governments will really (as distinct from verbally) co-operate in programmes which are uncongenial to their main sources of support; whether

What is analytically important is that the criticism of past policy cannot have much meaning unless one specifies what social and economic characteristics are considered to have been unchangeable data. Similarly, any policy for achieving dynamic equilibrium in the future has to be based on specified assumptions about which characteristics of the socio-economic structure are to be altered, and on an assessment of what the total effect of such changes will be.

#### D. The Lessons from Latin American Experience

What in brief occurred in Latin America was that the great depression, and subsequent vicissitudes in commodity markets, population trends, and political developments, set the countries of Latin America a task of adjustment, involving further industrialization and the creation of integrated, diversified economies. For this task they were in every way unprepared—economically, politically, administratively, and socially. The inflations that developed in some countries are one symptom of the failure to carry out the needed adjustments; other symptoms are stagnation, chronic reliance on foreign aid, and increasingly frequent political upheavals.

We can now see why Latin America has suffered more in these ways than other regions. One reason is that the increase in its commodity exports has been slower, at least since 1950, than for other primary producing areas. This is partly because the region's exports consist largely of foodstuffs, for which the income-elasticity of demand is not high (coffee, sugar, bananas); but also partly because its exports are directed towards North America, and economic growth there has been slower than in western Europe; and partly because discrimination against Latin American products has been increasing with the start of the European Common Market and the increased protection of United States mineral producers (petroleum and non-ferrous metals). Secondly, its rate of population growth has risen to over  $2\frac{1}{2}$  per cent. a year, which is the highest rate of any region in the world. Thirdly, economic aspirations are probably rising more quickly here: the 'demonstration effect' is stimulated by the widespread exhibition of films, television programmes, radio programmes, &c., originating in the United States (as well as by reports of travellers), and recently the Cuban revolution has further accelerated the rise of expectations. In addition, several Latin American countries have now reached difficult stages of industrialization, particularly the creation of heavy industries, without as yet getting much benefit in the form of saving imports of capital goods or exporting manufactures. Others are too small to be able to carry out much import substituti-

Congress will provide year after year the financial resources needed; and what will be the consequences of initial social reforms. (A rolling stone can be enough to start an avalanche.) Another important query is the behaviour of private capital, both foreign and Latin American.

tion. Some might add that Latin American administrations are particularly incompetent to face these problems because of their archaic social structures, though this is a matter of speculation (there is strong competition for the title of the least competent administration in the world!).

The most important lessons to be drawn from the experience of Latin America seem to me therefore as follows:

**(1) Methodology.** It is a mistake to treat underdeveloped economies as if they were developed when one is analysing economic trends. It is particularly mistaken to apply 'global' methods of analysis, whether monetary or income, devised for developed countries,<sup>1</sup> or to omit social factors.

It is also not very helpful to attempt to attribute inflation in Latin America either to 'cost' or to 'demand' pressures; inflation can only be understood as a whole process which incorporates both aspects.

One has to distinguish analytically between countries which pursue orthodox monetary policies for long periods, and those with managed currencies. They operate in quite different ways.

**(2) Substance.** It is meaningless to set up a hypothesis that inflation helps or hinders growth. Growth and inflation are interrelated but not in any simple way. In Latin America there are examples of growth and inflation (Brazil), stagnation and inflation (Argentina), growth and stability (pre-1958 Venezuela), stagnation and stability (pre-1959 Cuba).

Inflation can continue for decades without ever developing into a galloping inflation like the classic twentieth-century inflations of Germany, Hungary, and China. Latin American experience implies that necessary conditions for galloping inflation are heavy physical damage and/or strong unions.<sup>2</sup> (Latin American trade unions are relatively weak, by comparison with European unions, in resisting a decline in real wages.) While a long experience with inflation breeds distrust in the currency, it also breeds confidence that the inflation will not explode. Chile has had inflation for about a century, without it ever causing a complete financial collapse.

There is an inherent and ever-present risk of inflation in developing economies which export primary products, because of the active or potential need for structural change. So long as exports are booming it is possible to grow rapidly without inflation and without industrialization. But every commodity market weakens one day (even for petroleum), and if growth has to continue then, if only because of population increase, structural change has to occur. It is difficult to achieve this without inflation in an

<sup>1</sup> See a paper by Thomas Balogh in *Economic Bulletin for Latin America* (ECLA), Jan. 1961, on the way in which monopolistic elements make global analyses of a neo-classical type quite inappropriate to underdeveloped countries.

<sup>2</sup> It is interesting to note that the two countries which come closest to runaway inflation, Bolivia and Paraguay, were the only two which were heavily engaged in war in this period.

underdeveloped country. A suggestive parallel is with the structural changes needed in developed countries which have to convert themselves from a peace to a war economy, or vice versa (though one must also allow for the lack of administrative experience in an underdeveloped economy, the immobility of factors, &c.).

**(3) Policy.** Policy measures devised for developed economies are not necessarily, or usually, transferable to economies which are fundamentally different.

The essence of a fundamental stabilization policy is a long-term development programme to achieve the structural changes which are needed. Any other sort of stabilization policy is a palliative.

It is dangerous to insist, as the International Monetary Fund does, on indiscriminate policies of financial restraint. The result is a serious check to growth, and there is no reason to expect the resultant level and pattern of investment to be compatible with development needs. In addition, monopolistic tendencies are aggravated and the distribution of income is made more unequal (restricting the possibilities of further import substitution).

The proponents of *any* major economic policy measure in an underdeveloped economy are under an obligation to show how this measure will stimulate growth.

Even policies of restraint in the developed countries aggravate inflationary tensions overseas because they act as a brake on purchases of primary products.

Foreign borrowing will give a developing economy the room to manoeuvre it requires to carry out structural change without great tensions. (Whether this is worthwhile, in view of the political strings which are always attached to loans, in one way or another, is outside the scope of this paper.)

## APPENDIX

### A Note on the Structuralist School

THIS paper is broadly 'structuralist' in its approach.<sup>1</sup> The Latin American school of 'structuralists' is very little known in the United Kingdom or indeed anywhere outside the region. Yet its theories form an original and (in my view) stimulating

<sup>1</sup> What is meant by the word 'structure' in this connexion? There is some confusion on this point, since members of this school refer to the 'structures' of income, demand, output, industry, exports, imports, administration, politics, society, &c. Broadly speaking the more leftist structuralists mean by the word *all* these things, because each of them is considered in some way an impediment to economic growth and the achievement of a more equalitarian society. The conclusion may be drawn that social revolution is a necessary condition for an adequate rate of economic growth. On the other hand, the more conservative adherents usually put the main, if not the exclusive, emphasis on the structures of production and trade, since they are naturally less inclined to stress the need for social change. (In Marxist terms they are 'commodity fetishists'.)

contribution to the field of economic growth. It must be the first indigenous school of economics in an underdeveloped area. Since economic growth is becoming increasingly fashionable as a subject, and since the weakness in commodity markets, the population boom, and rising economic ambitions appear chronic, the school could acquire in the 1960's an international interest comparable to that of Keynesian economics during the slump-ridden decade of the 1930's.<sup>1</sup> These are the leading general references (apart from the ECLA study already mentioned):

- JUAN NOYOLA, 'El desarrollo economico y la inflación en Méjico y otros países latinoamericanos', *Investigación Económica*, 1956, No. 4. A seminal study in which inflation is treated as merely one type of disequilibrium.
- OSVALDO SUNKEL, 'La inflación chilena: Un enfoque heterodoxo', *El Trimestre Económico*, Oct.-Dec., 1958; available in English in *International Economic Papers*, No. 10. The first comprehensive statement of structuralism. See also a paper 'Some Aspects of the Chilean Inflation' in the *Economic Bulletin for Latin America* (ECLA), Jan. 1956, generally attributed to the same author.
- ANÍBAL PINTO, *Ni estabilidad ni desarrollo — la política del Fondo Monetario*. A polemical attack on the policies advocated by the Klein-Saks Mission, and later by the IMF. Sr. Pinto has been described as 'the Pope of the Structuralists'. A more extensive historical treatment of Chile's experience is in the same author's *Chile, un caso de desarrollo frustrado*.
- ALBERT HIRSCHMAN. Chapter IX of *The Strategy of Economic Development*. Inflation is described as the consequence of sectoral imbalances, though on many issues Hirschman would part company with the structuralists.
- JOSEPH GRUNWALD, 'The Structuralist School on Price Stability and Development: The Chilean Case', in *Latin American Issues* (ed. Hirschman). A critical evaluation by a United States economist who is broadly sympathetic to the structuralist position, and who is Director of the Economics Institute of the University of Chile. This paper contains (on p. 97) an extended bibliography on inflation and growth in Chile. A pamphlet written by Mr. Grunwald in 1955 (*Chile y la inflación*) is of some historical interest as an early reference to 'structural' tensions.
- DAVID FELIX, 'An Alternative View of the Monetarist-Structuralist Controversy', also in *Latin American Issues*. A brief summary of the structuralist position, which the author largely accepts. See also 'Structural Imbalances, Social Conflict and Inflation', by Mr. Felix in *Economic Development and Cultural Change*, Jan. 1960.
- CHARLES SCHULTZE, *Recent Inflation in the United States* (Study paper for the Joint Economic Committee of Congress, 1959). This does not refer to Latin American experience, but puts forward independently a point of view in many respects similar, suggesting that it is possible to construct a theory of growth and price movements sufficiently general to cover both developed and underdeveloped countries.

Various elements of the structuralist theory have been developed in the work of past and present ECLA economists (apart from those already named) as Raúl Prebisch, Celso Furtado, Pedro Vuskovic, Jose Antonio Mayobre, Victor Urquidi, Pedro Mendive, Manuel Balboa, Hugo Trivelli, and Jorge Alcazar, among many who have participated in ECLA's development studies and the work of advisory groups on economic policy.<sup>2</sup> These elements include a pessimistic appraisal of the

<sup>1</sup> 'Structuralism' has other affinities with Keynesian economics. It is essentially anti-monetarist, and it is on the whole more easily accepted by the Left than the Right. It, too, can inspire a good deal of enthusiasm, especially among the young. It differs, of course, in being mainly long-period, and in disparaging global techniques of analysis, which even the extensions of Keynesian analysis into the dynamic field (associated with the names of Domar, Harrod, and Mrs. Robinson) maintained.

<sup>2</sup> Visitors to ECLA in recent years who have had some influence in the same direction,

long-term trends in primary-product markets; emphasis on the dependence on imports of manufactures; attention to sectoral 'bottlenecks'; implied criticism of the social structure, especially land tenure, &c. I should add that Noyola and Sunkel have both been ECLA staff members (and worked together), and Pinto has worked with ECLA from time to time. (Pinto and Sunkel are still with ECLA.)

As a fundamentally Latin body, ECLA has been concerned all along with the need for a planned attempt to make Latin American economies less dependent on foreign trade, and this made them look at structural weaknesses. It was soon obvious that traditional theory, classical or Keynesian (even in their 'neo' forms) was little help, and that new theoretical explanations were needed. It was a coincidence that brought ECLA and Dr. Prebisch after the war to Santiago, the capital of a country which has suffered from the most severe structural problems, and where several able and vocal economists were already thinking along these lines. But such geographical coincidences often explain how a school is created by cross-fertilization, and how it achieves the formulation of a new and wide-ranging set of ideas.

If one wants to look more deeply into the origins of structuralism, the name that comes first to mind is that of Leontief, with his emphasis on structural relations between industries. The attention focused by input-output analysis on intermediate products and services has proved suggestive for ECLA's development programming, and has led to the realization of the dangers of overstraining basic industries during economic growth. On the demand side, one must mention Nurkse (and thus indirectly Veblen and Duesenberry). The French economist, Henri Aujac, is widely quoted by structuralists, because of his explanation of the way in which the general attempt to avoid a decline in real income causes an initial inflationary impulse to be maintained.<sup>1</sup> Marx must also be counted amongst the intellectual progenitors of structuralism, in view of the emphasis of Marxists on social factors in consumption, production, and policy formation.

Any historical account would be incomplete if it did not also mention the stimulus given to the structuralists by the appearance of the IMF as a major force in the region, inducing governments to balance the budgets of themselves and their public corporations, to restrict private credit, to prevent general wage increases, and to maintain unified and fixed exchange rates.<sup>2</sup> The tacit assumption is that if financial order is established, exports will benefit, private foreign capital will be attracted, and growth will occur spontaneously. Since (at least until recently) United States government agencies and other potential lenders have made the provision of capital dependent on the conclusion of an agreement with IMF, under which governments undertook to adopt this type of policy, the pressure on governments in this direction has been very powerful. Moreover, nearly every government has had to turn to the IMF for help. As a consequence, the profession in the region has been involved in a major debate between 'structuralist' and 'monetarist' positions, which has, as always occurs in strong polemics, led to theoretical developments, supported more or less appropriately by empirical research, on both sides.<sup>3</sup>

though one would not necessarily call them 'structuralists', have included Thomas Balogh, Hollis Chenery, Nicholas Kaldor, Julio Olivera, Nancy Ruggles, Richard Ruggles, and Jan Tinbergen. I am very well aware that these lists of names could easily be twice or three times as long, and apologize to those omitted.

<sup>1</sup> 'Une hypothèse de travail; L'inflation, conséquence monétaire du comportement des groupes sociaux', *Économie Appliquée* (Apr./June 1950); and in *International Economic Papers*, No. 4.

<sup>2</sup> An unkind critic of the Fund might point out that Cuba is perhaps the only country in the western hemisphere which has any prospect or even intention of carrying out this set of policies in its entirety! However, the peso is unlikely to become convertible.

<sup>3</sup> In Chile and Peru, the Klein-Saks Missions, which took positions close to those of the IMF, had a similar effect.

Whilst Chilean experience has been of great importance as an illustration, as can be seen from the bibliography,<sup>1</sup> I do *not* myself feel that the structuralist theory should be considered primarily relevant to Chile (the reader of the references cited above will, however, see that one of the few points on which Campos, Felix, and Grunwald are all in agreement is precisely that the theory fits best the case of Chile). In some forms of the theory, particularly if the stagnation of agriculture is heavily emphasized, this might be true, but I personally believe that, as outlined above, the theory is sufficiently general to cover all Latin American countries, perhaps all underdeveloped countries. This is because the assumptions appear generally valid, and the experience of the region since 1929 seems broadly consistent with the model in one or other of its versions.

### Economic Growth Center, Yale University

<sup>1</sup> I omitted many other Chilean economists from the above bibliography, such as Jorge Ahumada, Luis Escobar, Felipe Herrera, and Flaviano Levine, simply because I did not want to give too much emphasis to Chile. See also the article by Nicholas Kaldor in *El Trimestre Económico* (Apr.–June, 1959).