

Agricultural development and macroeconomic balance in Latin America: an overview of some basic policy issues

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In this article the author analyses the evolution of the Latin American agricultural sector from a long-term viewpoint, centering on the relation between the evolution of various macroeconomic policies and that of agriculture in the region. Among these policies, he highlights the importance of domestic relative prices and the significant impact of policies relating to the form of insertion of the region in the international economy in the areas of trade, finance and production.

From the early 1950s onwards, both types of policies discouraged the production of traditional exports, the growth of non-traditional exports, and efficient import substitution, yet even so it was possible to reduce the gap between potential and effective production.

In the 1970s, agriculture grew faster because the depressive effects of macroeconomic policy on relative prices were offset by subsidies. The rise in commodities and the greater access to external finance led to a big expansion in domestic absorption in much of Latin America.

This development style generated unsustainable macroeconomic imbalances in the 1980s, the resolution of which has been inefficient because of imperfections in the international capital market and domestic institutional and structural shortcomings. These attempts at rectification, however, have modified domestic relative prices, giving rise to a positive response by regional agriculture. The type of adjustment used, however, does not ensure dynamic efficiency, while there is also a need for various institutional and policy reforms both as regards domestic relative prices and the allocation of public and private resources.

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Introduction

The economic growth performance of Latin America has been weakened over most of the course of its history by the distortion of domestic relative prices. Prior to the crisis of 1929 the unbridled exploitation of extraordinary, rent-based comparative advantage generated substantial secular income growth but biased the domestic relative price system against the production of tradeables, exportables as well as importables. And in the several decades preceding the Great Depression the per capita output of tradeables in fact stagnated or declined in the wealthiest countries of the region, notwithstanding the pursuit of relatively free trade policies. The shocks emanating from, and the initial process of adjustment to, the Great Depression largely neutralized this distortion of domestic relative prices. However, over the course of this period and especially from the early 1950s onward, the stance of macroeconomic policy gradually became biased against production of tradeable goods and services other than importable industrial products. Indeed, the persistent application of expansionary fiscal and monetary policies and accumulation of external debt during both the troughs and peaks of the international economic cycle, as well as the recourse to import tariffs and quotas, price controls, multiple exchange rate régimes, explicit export taxes and restrictions on the disposition of foreign exchange, turned domestic relative prices against the production of traditional exports and likewise discouraged the development of non-traditional exports and efficient import substitution, while constraining domestic saving, reducing the efficiency of domestic investment and diverting domestic saving into external financial assets.

This macro policy stance nevertheless proved successful in bringing effective production closer to potential production, thus narrowing the massive output gap provoked by the Great Depression, and in initially harmonizing external and internal balance. However, in the years following the Korean War-related commodity price boom the growth performance of tradeables (especially in agriculture) faltered, the resource gap widened and overall output

growth slipped. In contrast, during the 1970s both agricultural and overall economic growth approached or surpassed potential, as the depressive effects of the prevailing macro policy stance on the relative prices and profitability of tradeables other than importable manufactured goods were largely offset by subsidizing production costs of these goods and/or by direct subsidies to producers of non-traditional exports. At the same time, a new commodity price boom improved the profitability of primary exports and together with unrestricted access to external finance fuelled an unparalleled expansion of domestic absorption throughout much of Latin America.

While the above-mentioned combination of biased macroeconomic policies and compensatory sectoral subsidies plus unlimited access to the international capital market was accompanied by unprecedented economic growth, this development style eventually generated unsustainable macroeconomic imbalances, the resolu-

tion of which contributed to the severity of the 1980s economic crisis. The recent adjustment to the repercussions of the international economic crisis and of the exhaustion of incongruous domestic policies has indeed been highly inefficient, owing to international capital market imperfections as well as to domestic institutional and structural shortcomings. However, the crisis-induced rectification of key domestic relative price relationships has abated one of the major obstacles to the long-run development of the Latin American economies, as the short-run output response of regional agriculture suggests. Yet, the post-Great Depression experience shows that an automatic adjustment process, regardless of how protracted or intense, does not ensure dynamic efficiency. In the 1980s growth-oriented structural change additionally calls for major institutional and policy reforms that sustain the normalization of the domestic relative price system and reallocate public and private resources.

I

Abundance of economic rents and the distortion of domestic relative prices

Prior to the Great Depression the development of rent-producing activities in the region brought about levels of income that everywhere probably far outstripped those obtaining prior to the exploitation of comparative advantage through international trade and that in some countries compared favourably with those of middle-income European countries.¹ However, the rent-based economy that came to predominate in Latin America proved incapable of sustaining growth at potential over the long run and in some instances eventually stagnated for decades: the abundance of rents, together with the automatic adjustment mechanisms of the

gold standard led to a singular degree of specialization in the production of exportable goods in which the region possessed extraordinary comparative advantage but the rate of growth of income from rent-producing activities trended downward over time.

Indeed, the unbridled exploitation of rent-based extraordinary comparative advantage raised indefinitely the domestic prices of non-traded goods and services relative to the nominal exchange rate, the maintenance of which in terms of gold was the heart of the gold standard, thus indefinitely lowering (deteriorating) the real exchange rate *vis-a-vis* the value that would have prevailed in the absence of abundant rents.² This brought about a real exchange rate, or domestic relative price system, whose secular trend value virtually precluded the production of tradeables other than rent-based activities that

¹Comparative international data on per capita income appear in Balassa *et al.* (1986, table 1.2).

possessed extraordinary comparative advantage, notwithstanding the minor incidence of tariff-associated and other trade-barrier-related relative price distortions throughout most of Latin America until the advent of the Great Depression.

The abundance of rents exercised an impact equivalent, in effect, to a prohibitive across-the-board tax on the production of tradeables, exportables as well as importables.³ On the other hand, the rent-determined real exchange rate indefinitely shifted domestic expenditure in favour of tradeables in comparison to the pattern that would have obtained if the domestic relative price of tradeables had approached a long-run equilibrium value.⁴ In addition to the distortion of relative output prices that the unbridled exploitation of prevailing extraordinary comparative advantage produced, relative factor prices became prone to distortion in the presence of excess rents. According as the economy-wide wage rate thus rose above the opportunity cost of labour, the abundance of rents also indirectly discouraged the employment of labour.⁵

Capital market imperfections —as well as the automatic adjustment mechanisms of the gold standard— reinforced the complete specialization of the rent-based economy in the produc-

tion of tradeables in which extraordinary comparative advantage obtained at any given moment. While profitability in tradeables production may indeed be limited to existing rent-based activities possessing extraordinary comparative advantage at prevailing relative output and input prices, the return to other activities could become profitable, and hence competitive, in the future even if relative output prices were to remain unchanged. In effect, production that initially implies losses could subsequently admit of profits according as the scale of output and learning-by-doing enhance productivity —the familiar infant industry argument. However, a dearth of financial intermediation would thwart national economic agents from undertaking such activities if they lacked sufficient savings to cover start-up costs and working capital and to sustain the transitory losses (Bassu, 1984). As Little (1982) and others have pointed out, the infant industry argument need not apply only, or especially, to manufacturing. Indeed, in retrospect it may be most useful in explaining, for example, how a country like Argentina, which became one of the principal suppliers of wheat on the world market in the early twentieth century, purchased wheat abroad until the 1870s, when a substantial tariff was levied on wheat imports (ECLAC, 1951).

In the "pure" rent-abundant economy, the resulting structure of production in the market segment thus was limited to a sector producing non-tradeables and a handful of exclusively rent-based exportables, the lion's share of the value of the output of which originated in a few —in some cases only one— rent-based activity. Output of importables was nil. The sector producing non-tradeables produced goods that were potentially importable, i.e., traded internationally, according as natural barriers afforded by transportation costs protected such activities from international competition. Activities producing potentially tradeable goods could naturally survive or emerge in a subsistence sector, likewise according as transportation costs neutralized the potential gains from trade.⁶ In contrast, the

³Secular long-term capital imports also contributed to the secular excess supply of foreign exchange, directly, as well as indirectly (i.e., by increasing the production of rent-producing activities). Like abundant rents, secular long-term capital imports directly and indefinitely lowered the domestic relative price of tradeables compared to the value that would otherwise have obtained. And it was precisely this effect that converted such capital flows into a real transfer of goods and non-factor services and discouraged the domestic production of tradeables.

⁴By way of contrast, a tariff is of course equivalent to a tax on the production of exportables (Lerner, 1936). In a rent-based economy a tariff might be a second best policy to offset the deleterious repercussions of relative price distortions: over the course of the secular trend the tariff would neutralize the depressive effect of rents on the relative prices of importables while its effect on the relative price of exportables would be redundant (the abundance of rents precludes the production of exportables regardless of tariffs). Once rents are dissipated, however, the depressive effect of the tariff on the relative price of exportables would manifest.

⁵The long-run equilibrium domestic relative price system, or the real effective exchange rate, is the one that is consistent with long-run external and internal balance.

⁶For an analysis of this type of rent-related distortion, the effect of which became more generally notorious in the wake of the post-World War II demographic revolution, see Lewis (1964), Seers (1964), ECLAC (1981) and Bruton (1984).

⁶In many countries the subsistence sector continued to employ a significant part of the labour force until after World War II, but in some —e.g., Argentina, Costa Rica and Uruguay— the subsistence sector virtually disappeared in the nineteenth century.

resulting structure of demand was shifted in favour of tradeables. Finally, rent-related distortion of relative factor prices redistributed rents from the owners of natural resources to the labour force, but biased the economy-wide production function in favour of capital.

As international prices of rent-producing activities, as well as other determinants of the total capacity to import, fluctuated around the secular trend, cyclical foreign exchange surpluses and shortages were resolved by the gold-based automatic adjustment process that eliminated the attendant macroeconomic disequilibria (e.g., between the flow supply of and demand for money) by varying the level of domestic expenditure relative to national income; by inducing fluctuations in the nominal and hence relative price of non-traded goods and services and thus switching expenditure from tradeables to non-traded goods and services (or vice versa), and by eliciting compensatory capital flows, provided, *inter alia*, that domestic economic policy were neutral.⁷ Increases in the real exchange rate, or

rises in the domestic relative prices of tradeables brought about by declines in the absolute prices of non-traded goods and services in response to adverse transitory external shocks, did not suffice to stimulate the production of tradeables other than the activities with extraordinary, rent-based comparative advantage, because the incentives to do so were in turn more than erased during the cyclical upswings, when the process of adjustment to favourable transitory external shocks inflated the domestic relative price of non-traded goods and services *vis-a-vis* its trend value. Thus, gold standard adjustment via the price-specie-flow mechanism (i.e., fixed nominal exchange rate, endogenous money supply and flexible prices of non-traded goods and services) to cyclical external shocks was not only consistent with a secular abundance of rents and the peculiar structure of production it spawned, but was also efficient (i.e., occurred without unnecessary welfare losses) over the course of the cycle, provided that markets and governments behaved as required.

II

Economic policy and the distortion of domestic relative prices

With the advent of the Great Depression, however, the abundance of rents evaporated, as international trade and commodity prices collapsed and capital flows to the periphery vanished. The magnitude and duration of the ensuing shift of domestic relative prices in favour of tradeables was unprecedented, and largely eliminated the rent-related bias against importables and exportables. But over the course of the 1930s and 1940s economic activity recovered from the Great Depression and World War II almost exclusively as a result of the sustained development of a sector producing importables (mainly

manufactured products but also including agricultural commodities), while exports languished at levels considerably below those achieved before 1930. In effect, the prolonged breakdown of the multilateral international trading system and the division of the world into trading blocs behind steep tariff walls and quantitative restrictions severely limited the scope of the development of non-traditional exports as well as the recovery of traditional ones. In addition, domestic economic policy gradually reintroduced distortions in the domestic relative price system that discouraged the production of exportables, while fostering the output of importables, especially manufactured ones.

Although the massive deterioration of the terms of trade and abrupt reversal of resource

⁷For further details on the operation of the gold standard see, for example, the papers collected in Bordo and Schwartz (1984).

transfers, together with the demise of the gold standard, paved the way for the transformation of the structure of production, the implementation of counter-cyclical fiscal and monetary policies implied a freely fluctuating exchange rate: a policy that not only left the entire system unanchored and hence exposed to open-ended instability, but also ran contrary to traditional policy rules. Whether by design or coincidence, the extensive recourse to import quotas and multiple exchange rate régimes, following the renunciation of the gold standard and major real devaluations, helped to reconcile expansionary fiscal and monetary policies with a return to a semblance of exchange rate stability, according as the scope for employing the resources left idle in the train of the Great Depression remained significant.

The combination of major rises in the real exchange rate and the pursuit of restrictive trade policies *cum* counter-cyclical fiscal and monetary policies was accompanied by an economic recovery that materialized sooner and was more vigorous in Latin America than in most of the industrialized countries.⁸ However, as the international economy recovered and then embarked on an era of unprecedented growth in the post-World War II years, import substitution policies were steadily intensified throughout most of Latin America, first in response to the Korean War-related international commodity price boom, to offset the depressive effects of the new abundance of foreign exchange receipts on the domestic relative prices and production of manufactured importables, and subsequently to counteract the disequilibrating impact of the protracted downturn in international commodity prices and the stagnation of export quantum on external balance. As a result, however, domestic relative prices became increasingly more biased against the production of exportables and, as in the pre-Great Depression era, the only products in which the region could compete internationally were ones in which it possessed rent-based comparative advantage. Even the output of these product lines tended to stagnate as a consequence of the policy-induced distortion of domestic relative prices.

The use of import tariffs and quantitative restrictions, originally as stop-gap balance of payments measures and eventually as part and parcel of a strategy specifically aimed at industrialization through import substitution, altered domestic relative prices throughout the economy. Restrictive trade measures (such as tariffs) that fostered industrialization raised the nominal domestic price of the protected manufactures and hence the domestic relative price of manufactured importables in terms of all other goods and services.

The extent of the increase in the absolute and relative profitability of producing manufactured goods hinged on the domestic value added in manufacturing production and the average tariff on the imported components employed in the production of exportables (which was usually low or nil) and in non-traded goods and services, as well as the incidence of nominal tariffs on the price of final manufactured imports and the demand for foreign exchange. By the same token, tariffs on manufactured products reduced the relative prices and profitability of all unprotected goods and services. Protection of manufactured importables especially depressed the relative prices and profitability of exports and agricultural imports because, in addition to the direct effects exercised on relative prices and costs, tariffs curbed the demand for imports, forcing the nominal exchange rate to fall below the value that would have obtained in the absence of tariffs over time. While the equivalency of import tariffs and export taxes has long been recognized, a tariff limited to manufactured imports is also equivalent to a tax on unprotected (e.g., agricultural) importables. On the other hand, as a result of this dynamic repercussion of protection, the relative prices and profitability of non-traded goods and services may on the whole improve (although they of course would deteriorate *vis-a-vis* those of the protected goods). However, the dynamic impact of tariffs is not sustainable, since it discourages the production of unprotected importables and exportables and hence is incompatible with sustained external balance, unless the supply of external finance is infinite. Finally, import quotas exercised analogous effects on domestic relative prices but produced windfall gains for the private sector rather than revenue for the government.

⁸The comparative historical record is discussed, for example, in Díaz Alejandro (1982) and Corbo (1986).

The persistent implementation of procyclical fiscal and monetary policies during international upswings, as well as of expansionary policies during the downswings, led to a progressive increase in public sector demand for financing and the creation of excess liquidity in relation to private sector demand for domestic financial assets. To impede or limit spillover effects in the markets for goods, services, fixed assets and foreign exchange, external finance, restrictions on current and capital account transactions and selective price controls were resorted to. The utilization of external finance to cover public sector deficit spending reduced the extent of creation of excess liquidity and/or crowding out of private investment that otherwise would have existed. It also absorbed the effects of the excess demand for goods and services on the domestic price level and the overall balance of payments, but did not eliminate the underlying excess liquidity. Selective price controls were also utilized to dampen inflationary pressures, while restrictions on current and capital account transactions helped to check the repercussions of expansionary fiscal and monetary policies on the balance of payments. However, the persistent excess supply of money eventually propelled output beyond its potential, inflating the domestic price level *vis-a-vis* international prices.⁹ On the other hand, the inflationary impact of the excess liquidity on the nominal exchange rate was absorbed as long as external finance was available. According as the official nominal exchange rate was thus sustained at its existing level, the real exchange rate deteriorated, raising the prices of non-traded goods and services relative to those of tradeables. At the same time, the profitability of producing tradeables was squeezed by the rise in domestic production costs.¹⁰ The use of current and capital account controls also increased the inflationary impact of

excess liquidity on the prices of non-traded goods and services and led to the emergence of a parallel or black market exchange rate, likewise depressing the relative price of tradeables at the official exchange rate.¹¹ Recourse to selective price controls for items that bulk large in the formation of measured consumer price level variations further diminished the profitability of domestic food production.

During the 1970s the ramification of the prevailing macro policy stance on the profitability and production of tradeables other than manufactured importables were largely offset by sector-specific measures (principally under-priced credit) that subsidized production costs of tradeable agricultural goods and non-traditional manufactured exports. In addition, direct subsidies were made available for non-traditional exports. Agriculture also benefitted from the escalation of international commodity prices in the early and mid-1970s. As a result of these compensatory policies and the improvement of international relative prices, during the 1970s value added in Latin American agriculture (in constant prices) increased 3.5% per annum, or a rate close to the potential one, notwithstanding the bias of macroeconomic policy against tradeables and especially food production. At the same time, the radical expansion of commercial bank lending to the region not only financed the balance of payments impact of the oil price shocks but also fuelled an unprecedented expansion of domestic absorption in oil-exporting and oil-importing countries alike. Positive international shocks accelerated economic growth via their salutary effect on the production of non-traded goods and services, but reinforced the bias of the prevailing macroeconomic policy stance against the production of agricultural importables and non-traditional exports.

While the combination of biased macroeconomic policies and compensatory sectoral subsidies with unlimited access to international capital markets thus was accompanied by unprecedented economic growth, it eventually generated pervasive imbalances, including stagnation of exports and non-manufactured impor-

⁹The inflationary effects of excess liquidity on the domestic price level are susceptible of being absorbed through the expansion of the resource gap up to the point where actual equals potential output. Beyond that point the wage rate, and hence the price of non-tradeables, will rise.

¹⁰According as the relative prices of non-traded goods and services escalate, the excess demand for goods and services will be channeled to tradeables, while factors of production will be reallocated to the production of non-tradeables, further increasing the resource gap and the demand for external finance.

¹¹Such a multiple exchange rate régime also implies a tax on the production of exportables and a subsidy for imports.

tables, overproduction of non-traded goods and services, uncommonly large resource gaps, unexampled excess external debt and rampant domestic price instability, all of which contributed to the unusual severity of the contemporary economic crisis.

These disequilibria reflected a build-up of the costs incurred from inefficient resource allocation; from payment of subsidies on inputs; from administration of the policy interventions; from the diversion of productive resources to rent-seeking activities (e.g., to obtain subsidies); from the increased volatility of domestic relative prices produced by the escalation of inflation,

and from the measures fashioned to mitigate distributional effects of the ruling development style (e.g., payments to labour—including unproductive employment—left redundant as a result of the depression of the rental price of capital relative to the wage rate of labour as well as of the disproportionate expansion of relatively more capital-intensive activities). Finally, on the demand side the excess accumulation of external debt and the costs it entails stemmed from overvaluation of the currency as well as from the drive to finance part of the costs of the prevailing development style from ostensibly non-inflationary sources.

III

Crisis and adjustment in the 1980s

In the early 1980s a radical change in the prevailing combination of macro and sectoral policies occurred throughout most of Latin America. The macro policy bias against tradeables was sharply reduced and sectoral subsidies slashed. This turnaround in policy was essentially an outcome of the dynamics of an involuntary adjustment process rather than the result of domestic policy initiatives. However, an automatic adjustment process is not necessarily efficient. Indeed, the region not only endured a reduction in domestic absorption out of all proportion to the balance of payments impact of permanent external and domestic policy shocks but also suffered enormous unnecessary welfare losses, principally due to an untoward dearth of external finance but also in consequence of domestic institutional and structural imperfections and the absence of commensurate domestic policy initiatives (Ground, 1986). Nevertheless, the crisis-induced change in economic policy opened the way for the emergence of a less costly and more sustainable development style.

According as the supply of external finance is cut off and the holdings of international reserves exhausted, the gap between domestic absorption and national income—or, what amounts to the same thing, the balance of pay-

ments current account deficit—disappears. This process is inevitable and automatic and unfolds as a result of the increase in the domestic relative price of exportables and importables—i.e., in the real effective exchange rate—that the dearth of external finance leads to, independently of whether policy-makers alter the official exchange rate and the nominal value of public sector expenditure and regardless of whether the private sector adjusts its nominal spending. The rise in the relative domestic price of tradeables drives domestic investment and national savings into balance through two channels: by switching domestic expenditure from tradeables to non-traded goods and services and by reducing the overall level of real domestic expenditure via the impact of the rise of the domestic price level on nominal incomes. It will also slash real domestic expenditure via the monetary channel if an excess demand for money emerges.¹²

¹²To the extent that the increase in the relative price of tradeables leads to a rise in the price level, the increase in the real effective exchange rate will reduce the real value of non-readjustable financial assets such as the money stock. If the demand for money is a demand for real monetary balances, when the price level goes up there will be an excess demand for money, given the existing stock of money, unless the public expects this increase to persist, i.e., to turn into inflation (in which case the demand for

The process of adjustment to a dearth of external finance necessarily leads to the reduction, if not elimination, of the bias against the production of tradeables, regardless of domestic policy.¹³ Furthermore, in the course of curtailing real public sector expenditure the automatic adjustment process simultaneously rolls back the real value of the compensatory subsidies channelled to agriculture, unless these expenditures are specifically targeted for an increase. However, the parallel reduction of the bias against tradeables naturally weakens the rationale, and shrinks the extent of the need, for compensatory subsidies and hence dovetails with the overall restriction in resource availability. The transformation of the domestic policy stance witnessed throughout most of Latin America in recent years could thus be explained exclusively in terms of the dynamics of the automatic adjustment process. In practice, however, the change was a product of voluntary as well as involuntary adjustment. Indeed, whereas the elimination of external finance automatically and inevitably eliminates a commercial account deficit, it will lead to the generation of a commercial account surplus if and only if domestic borrowers continue to effect factor service payments abroad. But to the extent that adjustment is voluntary, the relative domestic price of tradeables will naturally be higher and domestic absorption lower than would otherwise be the case. If the domestic authorities are unwilling to make foreign exchange available for interest payments on the external debt and private domestic agents are unable or unwilling to purchase foreign exchange on the parallel or black market to finance factor service payments abroad, a commercial account surplus will not be produced. It is in this sense that the adjustment process in

Latin America as a whole has involved voluntary (the generation of a commercial account surplus and transfer of resources abroad) as well as involuntary (the elimination of the commercial account deficit) components, without reference to whether some countries opted to adjust before they lost access to the international capital market or exhausted their holdings of external assets—which in fact was the case (whether alone or with the encouragement and support of the International Monetary Fund).

The sharp reduction in real government expenditure and in the real allocation of credit to sectors producing tradeables witnessed throughout most of the region during the course of the crisis likewise may result from either an automatic or voluntary adjustment process. Indeed, it would be the inevitable result of either process unless compensatory fiscal and monetary measures were implemented. In effect, the rise in the price level provoked by the shift in domestic relative prices spontaneously translates into a pervasive, across-the-board decline in the various categories of public expenditure as well as in the real value of financial assets. However, such an outcome is neither necessary nor desirable. On the contrary, efficient adjustment to the balance of payments impact of shocks would require either an increase in public sector expenditure and bank credit in sectors producing tradeables and/or an increase in the efficiency of such outlays. With the absolute need for some government expenditures and credit allocations (such as those designed to compensate for macro biases) eliminated, and the relative efficiency of others (i.e., those channelled to sectors producing non-traded goods and services) reduced, there is scope to increase development expenditures on the production of tradeables, in spite of the overall reduction in resource availability and increased outlays for interest payments. But efficient adjustment would require active policy intervention to reconcile the expansion of the production of tradeables with the reduced availability of resources. This efficiency requirement suffices to explain why an automatic adjustment process is inefficient. However, active public expenditure and monetary policies likewise would be needed to avoid unnecessary welfare losses, regardless of whether relative price adjustments were automatic or voluntary. In any

money would drop). An excess demand for money can be eliminated by a decrease in expenditure, a decrease in income, an increase in the interest rate, an increase in expected inflation, or an increase in the money supply. If the policy response is passive and the public is free of inflationary expectations the rise in the relative price of tradeables will also operate through the monetary channel, regardless of whether international capital flows are inelastic or not. Otherwise, the current account deficit will disappear as a result of substitution and income effects alone.

¹³To the extent that tariffs and price controls remain in place or have been intensified, the exchange rate will be lower than it otherwise would be, notwithstanding its escalation in the wake of the cutoff of foreign finance.

case, real world economies are beset by deep-seated imperfections that also impede efficient adjustment unless commensurate international and domestic policy interventions materialize.¹⁴

Given that government spending and bank credit allocated to foment the production of tradeables have, in fact, dropped precipitously in the course of the crisis, it is not surprising that growth of Latin American agriculture declined to 2.5% per annum in 1980-1985 from 3.5% in 1970-1980, *vis-a-vis* a potential rate of about 4%, notwithstanding the substantial increase in the domestic relative price of exportables and importables in most of the region. If anything, these results should lay to rest any lingering doubts about the price responsiveness of Latin American agriculture. Indeed, the marked reduction in the ratios of public expenditure and bank credit to value added in agriculture suggests that considerable fractions of these resource expenditures were superfluous and provides an indication of the extent of the inefficiency of the previous development style. In contrast, the large reduction of expenditures on agricultural research and extension, the decline of public sector capital formation and the deterioration of agricultural infrastructure in the wake of radical cutbacks in non-wage outlays other than subsidies holds forth the spectre of a sharp drop in agricultural growth. Having obtained the once-and-for-all output gain from the reallocation of factors of production in agriculture and between agriculture and the rest of the economy, induced by the increase in the domestic relative price of tradeables, continued expansion of production of

tradeables will require the support of stepped-up development spending and credit allocations.

Efficient adjustment may also require an active macro policy to eliminate, reduce or stabilize inflation. In effect, it has been found that relative prices become more volatile as inflation escalates. While this phenomenon would not impede the automatic adjustment process, it would raise the cost of adjustment by weakening the responsiveness of the production of tradeables to relative price changes. No matter how volatile relative prices may be, import quantum would plunge to the level consistent with the compression of the capacity to import by the drying-up of capital inflows, but the production of exportables and importables may well evince a response that is weaker than otherwise would obtain if inflation were less intense, less volatile or nil. However, stabilization policies also entail costs, unless the public's expectations and behaviour can somehow be brought into line with the authorities' policy goals —an achievement which is virtually impossible if the economy is simultaneously adjusting, since prices like the exchange rate, which exercise a determining influence on the public's expectations, will be increasing rather than remaining stable or declining (Ramos, 1987). The existence of inertial-type inflation also calls for a gradual adjustment process rather than an automatic one for efficiency's sake, and hence, the support of external finance.

The efficiency of the automatic adjustment process is also eroded when international capital market imperfections provoke worldwide asymmetrical adjustments; when there is, in effect, "one periphery" —a phenomenon which is one of the outstanding features of the present crisis, as it was of the Great Depression. The pervasive reduction of import quanta and expansion of export quanta attendant upon the dearth of external finance depress international commodity prices, inflicting a welfare loss on the periphery additional to those stemming from the contraction of the resource gap and declines in output. Indeed, a vicious cycle may emerge, in which the income loss from the deterioration of the terms of trade spirals, as adjustment begets adjustment. In this regard the current crisis has proved even more costly than the Great Depression, since many countries have financed interest

¹⁴At the domestic level, two classes of imperfections may be identified. The first encompasses those which are intrinsic to the very existence of time and uncertainty. The rigidities and lags they spawn thwart instantaneous reallocations of productive resources in the direction and magnitude required to maintain them fully employed even if the economy is free of the other class of imperfections, i.e., the structural (e.g., oversized non-traded goods and services sector) and institutional (e.g., decentralized and unconsolidated public sector budgetary process) deficiencies that develop in the train of domestic economic policy incongruences. Efficient adjustment would thus require compensatory external financing of the balance of payments impact of shocks even if the economy were free of structural and institutional imperfections and domestic policies were consistent with full employment. However, international capital market imperfections impede an allocation of external finance consistent with efficient adjustment, while the resources mobilized by the international financial community are insufficient to offset those imperfections.

payments on their external debt with commercial account surpluses, whereas in the 1930s

scarcely any country underwent voluntary adjustment.

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