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A Brief Background

In the last three decades, the Brazilian inflation has not been able to escape from two-digit rates of inflation. After briefly reaching the 100%-year inflation in 1964, the inflation rate was reduced by the stabilization program launched by the new military government to levels slightly below 40% in 1965 and 1966. The relative success of this stabilization program was based on wage controls enforced by authoritarian measures and supplemented with selective price control policies. A further reduction in the rate of inflation.

Preliminary Comments welcome

I. Introduction¹

This paper attempts to map out in a highly selective way, some promising research fields (PRP) in macroeconomics relevant to Latin American countries (LACs). It is not intended to offer a complete evaluation of existing models that encompass characteristic features of LACs. Taylor (1983a) gives an overall appraisal. Apart from identifying some PRP, the paper advances some conjectures, which may be worth pursuing. Emphasis is on models and modelling issues; a disproportionate weight is given to recent developments. The paper is not meant to offer practical suggestions to policy makers; its purpose is to be useful for future theoretical research. Policy implications will be derived solely in the context of abstract and rigorous models.

The approach here adopted needs further clarification in at least five respects. First, important aspects of LACs were excluded because they seem to pose intractable difficulties from the viewpoint of abstract theory. The functioning of the underground economy based on tax evasion is a case in point. Although crucial from the viewpoint of policy making, it can hardly be conceptually apprehended through aggregate models.

Second, the paper does not deal with any country or group of countries separately. The issues discussed are, with rare exceptions, of general interest; the approach here adopted, however, assumes that the reader is familiar with LACs and therefore able to identify concrete realities veiled behind abstract description.

Third, the paper, with the exception of Section VIII below, does not discuss long run growth

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trajectories. The dismissal of the classical themes of technical change and structural sectoral imbalances is not meant to suggest that the obsession with stabilization is justified. Proper stabilization policies have to be grounded on long-run trajectories; the common habit of discussing stabilization in isolation is unfortunate. Yet it seems hard to base stabilization issues properly. A plea for the introduction of long-run considerations is given in Section II; but the approach here adopted by and large reflects, in this regard, current trends in the literature.

Four, the paper is historical only in the sense that theory evolves over time. No reference to LACs history occurs. To give one example, the issue of the proper internal adjustment to a foreign exchange constraint with the obligation of paying interest on debt is considered without inquiring into the causes historically responsible for debt accumulation.

Finally, the macroeconomic theory here discussed is of the non-Marxian variety. The results of the recent analytical revival of the Marxian tradition (Elster, 1982, 1983; Roemer, 1982) are yet to be applied to stabilization issues. In the non-Marxian field, this paper ignores the burgeoning literature on the debt crisis resolution; the reader is referred to Eaton and Taylor (1985).

The paper is organized as follows. Section II deals with multiple equilibria. Exchange rate management is discussed in Section III and trade liberalization in Section IV. Speculation forms the subject of Section V. Interest rate management is discussed in Section VI, government behaviour in Section VII, distributional issues in Section VIII. Section IX deals with inertial processes of inflation and Section X with disequilibrium theories. The paper is concluded by two remarks in Section XI.

II. Multiple Equilibria

In contrast to the literature on developed economies, stabilization issues in development theory are usually addressed within a short-term framework. Buffie (1983) and Taylor (1984) are exceptions. Three reasons account for this departure from mainstream economies.

The first is that it may take a long time to arrive at the long-run equilibrium. Since the traverse is punctuated by shocks that alter the nature of this long-run equilibrium, reference to the long-run is held to obscure the relevant short term issues. Second, the usual perfect foresight dynamic stories along stable trajectories towards the saddle point long-run equilibrium is said to hardly describe long-run adjustment in LACs. Third, the Keynesian aspects of most interesting models for LACs seem hard to reconcile with the natural employment rate postulate.

As to the first reason, it is clear that the robustness of short-term models depends on carefully specifying the nature of shocks that render long run equilibrium movable or shifting. The dismissal of long run considerations cannot be justified by merely invoking the changeability of the long run equilibrium. The second reason also fails to justify short terra models. For it is certainly preferable to

analyse, however crudely, the dynamic movements than to neglect them. The third reason, however, requires careful consideration. The conjecture here offered is that multiple equilibria provide the way out. The challenge of grounding short and medium term analyses on a long run view based on spontaneous equilibrating forces beyond the straightjacket of the natural rate hypothesis could be met by specifying the multiplicity of real equilibria accessible to the economy.

In demand-oriented models, multiple equilibria emerge naturally. In Taylor (1984), there is two steady State stable equilibria plus manifold possibilities for long-run instability. Multiple equilibria emerge also in supply-constrained models. That the Walrasian equilibrium may not be unique under sensible hypotheses is well known; multiple equilibria emerge, of course, in game theory; multiple equilibria emerge in optimizing perfect-foresight models even when bubbles are excluded (see Obstfeld, 1984). Instead of being looked at as a “problem” in model building, the specification of multiple equilibria provides a PRF. It illuminates recent policy discussions in LACs.

These discussions emphasize the “irreversibilities” caused by large recessive shocks. The argument is that large shocks and long and severe recessions alter the structure of the economy. There is no guarantee that the economy will ever return spontaneously to the pre-recession equilibrium. Technical backwardness, industrial concentration, wealth concentration and sectoral imbalances are three consequences of deep recessions, which imprint their mark on the structure of the economy. The intuitive argument frequently heard is that a moderate recession caused by moderately restrictive policies can be undone by moderately expansionist policies; but a large recession would change the catalogue of options available to society. Time can be run backwards from the viewpoint of small shocks; irreversibility would be felt from the viewpoint of large shocks. As a consequence, policies able to promote growth after long depressions cannot be obtained by simply reversing the policies that launched the recession.

This intuitive and vague argument can be easily cast in terms of multiple stable real equilibria. It amounts to the argument that small shocks have transitory effects if the economy still gravitates around the same long run equilibrium. But large shocks displace the economy towards a possibly inferior different stable equilibrium. The long-run Phillips curve would be vertical around each real equilibrium; but monetary policy could be made effective in a fundamental sense to the extent to which it induces the traverse from one long run equilibrium to another. Fiscal policy would be more needed to support some real equilibria than others. The formalization of policy discussions in these terms, however, requires a discussion of the reasons for multiple equilibria. In the history of economic thought, Myrdal (1934) is an important reading. In full contrast with modern theories, he argued that, whereas the monetary equilibrium is unique, several real equilibria positions for an economy might exist. Two aspects of the existence of multiple equilibria are worth mentioning: hysteresis and increasing returns.

Hysteresis is the property of dynamic Systems that the stationary equilibrium is a function of the initial conditions and/or the transition trajectory towards the steady State (see Buiter and Gersovitz, 1981, Buiter and Miller, 1983). Hysteresis in the natural unemployment rate occurs when unemployment destroys human capital by having a negative effect on attitudes and aptitudes.

A long recession may increase the natural rate. Hysteresis may occur because of external credit shocks that impose on the country the generation of expressive trade surpluses. If to produce at full capacity in the engineering concept violates the target surplus negotiated with lenders, capacity in the economic concept of the term is destroyed. LACs that experienced credit shocks in 1982 are much closer to full capacity than commonly recognized. Hysteresis seems to be the proper way of conceptualizing the shifting or moving long-run equilibrium argument.

The insight that increasing returns lie at the heart of processes of development is a profound one (see Young, 1928). A Keynesian argument on the multiplicity of equilibrium can be reconciled with increasing returns (see Weitzman, 1982). The interest of increasing return models for LACs is somewhat diminished by the importance of agriculture and mineral sectors; but even in little industrialized countries declining average total costs may obtain because of heavy investment in fixed capital. Increasing returns are also of interest from the viewpoint of inflation; restrictive fiscal policies then equivalent to an adverse supply shock as less demand is translated into higher average costs.

Finally, note that the multiple equilibria approach here defended can provide an analytical framework for revisiting the wisdom of unbalanced growth theories. For if the current equilibrium is stable, one has to put the economy out of balance to enable it to reach a more satisfactory real equilibrium. Needless to say, the multiple equilibria approach needed for this task supposes discrete, finite positions; the sun spot literature on the continuum of equilibria can offer no basis for reassessing unbalanced growth theories.

III. Exchange Rate Management

The contractionary effects of devaluation have formed an *Ostinato* theme in structuralist macroeconomics. The expenditure switching effect was shown to be not the unique relevant effect. On the aggregate demand side, distributional effects, consequences of initial fiscal or current account deficits and the real balance effects could counteract the expansionary impetus of devaluation. More recently, adverse supply side effects were also brought into the picture. Devaluation could be contractionary via intermediate imports (Buffie, 1983), via imported consumer goods and via reduced real credit volume (van Wijnbergen, 1984a). In spite of the already vast literature on the subject, it still forms a PRF. The financial aspects of devaluation have received increasing attention recently. In LACs, financial effects are important because of dollar-denominated government debt, dollar-

denominated liabilities of private firms and real dollar holdings by private agents.

In the classical regime model of Buffie (1984), devaluation could be expansionary in two circumstances. First, if it alters the real wage. Second, and more interesting, if it decreases the curb market of interest. The degree of wage indexation governs the increase in the demand for loans caused by the devaluation; the increase in loan supply depends on foreign bonds (or, more generally, on dollar-denominated bonds). If the share of dollar-indexed assets in financial wealth exceeds the degree of wage indexation, the fall in curb market rates stimulates output.

In the classical regime model of van Wijnbergen (1984a), dollar-denominated bonds appear in contrast as liabilities of domestic firms. Private wealth holders do not own foreign assets. A devaluation is contractionary because it increases the debt burden: interest on foreign borrowing increases while disposable income falls. Of particular interest is van Wijnbergen's (1984a) solution to the Argentinean riddle of accelerating inflation in face of a preannounced slowdown in the rate of devaluation of the nominal exchange rate. Demand expansion caused by the reduction in debt servicing leads to the acceleration of inflation.

As in van Wijnbergen (1984a), Arida and Lara-Resende (1983) disregarded dollar-denominated assets in portfolios. Dollar-denominated debt is invoked to explain the acceleration of inflation. Central Bank pegs the real interest rate; by arbitrage, the profit rate is therefore given. A devaluation decreases total profits. The same profit can be obtained through either a devaluation of capital stock or an acceleration of inflation that diminishes real wages and magnifies subsidies. In face of an increased debt burden, inflation in Brazil is viewed as a mechanism for the defence of the firms' net worth at the expense of workers and public budget equilibrium.

The macro model of Easterly (1984) combines the two strands of financial effects. Portfolios of wealth holders include dollar-denominated assets; dollar-denominated debt occupies a central role in firms' liabilities. As in Arida and Lara-Resende (1983), interest rate pegging occurs. (See the discussion of Section VI below). Easterly (1984) maintains that in México firms' net worth declined as the upward revaluation of capital stock was insufficient to compensate the increase in dollar-denominated liabilities due to devaluation. The leverage ratio for firms increased accordingly. Since credit risk is based on the leverage ratio, investment falls because of the ensuing credit rationing. The fall in consumption, however, is less severe. The wealth effect of devaluation leads to an increase in the consumption of the profit-earning class who hold the bulk of financial wealth. Easterly is thus able to explain why investment in México was much more affected by devaluation than consumption.

This leads to an interesting conjecture. Suppose the expenditure switch effect is important. Investment is crucial to the structural adjustment imposed by the necessity of meeting (at least partly) interest payments on foreign debt. But unless countered by Central Bank intervention, capital losses on foreign liabilities after the devaluation can crowd out domestic capital formation. In heavily

indebted countries, the negative effect of devaluation on investment is to be counteracted by a decline in interest rates, as argued by Arida and Lara-Resende (1983). But for heavily indebted countries, the external real interest rate is the lower possible limit for the real domestic interest rate, as will be argued in Section VI below. If the external interest rate is too high, the country cannot take advantage of the expenditure-switch effect because of bottlenecks in the production of tradables.

A still unexplored financial repercussion of devaluation follows from foreign property. Discussing the Jamaica case of an exporting sector owned by foreigners, Barbone (1984c) showed that devaluation has another contractionary effect. Because of profit remittances, the only component of value added contributing to national income in this sector is the wage bill. The fall in real wages caused by the devaluation contracts, therefore, aggregate demand. The elasticity conditions in the domestically-owned export sector needed to prevent output contraction are more stringent. A taxation on profit remittances is thus justified.

Yet the proper assessment of the impact of devaluation on foreign property is still missing in Barbone (1984c). In the absence of government guarantees against exchange risk, a devaluation decreases, instantaneously, the dollar value of the stock of foreign property. The capital loss borne by foreigners can only be compensated by larger profit streams in the future. Since they are more likely to occur in exporting sectors, investing in sectors like mining or sophisticated consumption goods provides to foreigners a natural hedge against exchange risk. But the drop in dollar value of investment abroad means that, from the perspective of the prospective investor, the replacement cost of capital has decreased. In the absence of government regulation, the inflow of direct foreign investment provides an expansionary effect of devaluation on output.

Apart from the financial aspects of devaluation, exchange rate management involves other issues worth pursuing. In Arida and Bacha (1984) optimal exchange rate management depends on the nature of disequilibria in goods markets. In the basic case, devaluation lowers the dollar price of exports and therefore enhances potential demand. If the initial condition is excess demand in the goods markets, devaluation worsens the trade balance by reducing the purchasing power of exports. The quantity exported does not change; it only makes the excess demand situation more acute. Even if there is excess supply in goods markets, devaluation may fail to improve the Balance of Payments. The reason is that export demand needs to be more than unit price elastic to offset the import content of export production. Since Balance of Payments disequilibrium may occur under either excess supply or excess demand in goods markets, the habit of prescribing without hesitation a devaluation to correct Balance of Payments problems is again hardly justifiable. The novelty of Arida and Bacha (1984) in this regard is to explore the significance of goods market disequilibrium to exchange rate management.

The Arida and Bacha (1984) model allows a reinterpretation of an old development theme:

surplus labour. (See also Bacha,1984). Suppose there is a critical value e^* of the exchange rate e beyond which devaluations fail to increase the dollar value of export receipts. A Walrasian equilibrium may not exist even if $e = e^*$. In this case, one cannot reconcile full employment and Balance of Payments equilibrium by “getting the prices right”. The optimal exchange rate e^* is to be supplemented by structurally oriented policies to suppress surplus labour.

In contrast to these limiting results, the Árida and Bacha (1984) model enlarged in one significant respect the scope of exchange rate management. In contrast to the case of decreasing returns, a successful devaluation under increasing returns needs not necessarily lower real wages. The larger the price elasticity of exports and the degree of increasing returns, the more likely it is that a devaluation may increase real wages. The result is crucially dependent upon the assumption that firms are constrained to zero profit positions. Yet it illustrates the advantages of introducing increasing returns into the discussion of LACs problems as suggested in Section II above.

In Árida and Bacha (1984), the exchange rate is set by government fiat. Financial institutions in most LACs are insufficiently developed to make floating exchange rate regimes viable. The most common arrangement involves dual exchange regimes in which the black market rate floats to equilibrate transactions ruled out from the official market by capital Controls. Advocates of floating exchange rates frequently look at black-to-official market differentials as revealing the feasibility or unfeasibility of abandoning fixed exchange rate regimes. But black market differentials respond to several factors – and particularly to the differential between internal and external real interest rates. While floating is not likely to be the best exchange rate regime in present circumstances, the previous experience on the foreign exchange certificate system may be a way of getting the positive aspects of floating rates without having to renounce to exchange and capital Controls (see Chou,1984, for a description of this system in China). Current dual exchange regimes pose at least two interesting issues: the optimal path of the official exchange rate and the optimum allocation of transactions between controlled and free markets. In the remainder of this Section, these two issues are taken up in turn.

Although capital Controls give Central Bank considerable leeway to maintain an overvalued or undervalued exchange rate for long periods of time, the optimal exchange rate is likely to change over time. Blind processes of trial and error have characterized recent experience in LACs; the magnitudes of the devaluations undertaken after the Mexican Moratorium of 1982 were arbitrarily set. The widely shared belief that PPP-oriented exchange rate policy is good policy advice has no end foundation (see Dornbush,1982). An interesting conjecture is that, in an uncertain environment and leaving aside the financial impacts just discussed, the optimal path would exhibit a severely devalued exchange rate after an external credit shock such as the one that took place in 1982. The initial overshooting would be corrected over time: as reserves build up, the exchange rate would appreciate.

The updating rule would be preannounced. Exchange appreciation would be a known function of reserves to debt ratio. Contingent rules for the exchange rate in fixed exchange rate are a PRF for LACs.

Three different considerations give plausibility to this conjecture. First, a very large initial depreciation following a very large credit shock is the result to be expected in a floating exchange rate regime; the conjecture amounts to reproduce it in the context of fixed rates and capital Controls. Second, the effectiveness of the devaluation in increasing official reserves may be undermined when black market perception differs from government perception. The advantages of a surprisingly large, and consensually definitive, devaluation under uncertainty on the timing and magnitude of the needed devaluation was pointed out by Collins (1983). Collins' (1983) argument, however, is crucially dependent upon the hypothesis that illegally acquired foreign asset holdings constitute an important share of domestic wealth. Third, in an uncertain environment, a very large devaluation is needed to overcome the problems posed by investment irreversibility. A relatively small devaluation that leaves in suspense the future course of the exchange rate, increases the returns to waiting for information. Since the structural adjustment to a credit shock does require sizeable fresh investment, a large devaluation increases the returns to early investment commitment against the benefits of waiting. The bearings of investment irreversibility (see Bemanke, 1983a) on the optimal path of the exchange rate is a PRF.

Another aspect of the optimal path was recently discussed by Rosensweig (1984). He focused on the demise of the dollar area. LACs leaving the dollar area either devalue openly or impose extensive Controls or rationing as a way of shifting transactions to the black market. The basic framework has three actors: a pegging LAC, a pegged to pivot country (the US) and the floating rest of the world. In spite of the dollar peg, the LAC country has large trade flows outside the dollar area. The US follows a policy mix of tight money and loose fiscal policy. Consider the case of fiscal policy first. US income rises; the dollar appreciates (but not relative to the LAC currency); interest rates increase. Trade surplus in the LAC that adheres to the dollar tends to increase because of the income spill over. But it tends to decrease because of both trade diversion out of the dollar area towards exports of the countries that have floating currencies and the adverse direct effect of dollar appreciation in trade with non-dollar-area countries. The net result may be negative under plausible specification of relevant parameters. In the case of tight money in the US, the outcome is certainly negative as the spill over effect turns from positive to negative.

In Rosensweig (1984), the LAC willing to stay in the dollar area should adopt expansionary fiscal policy. The dollar ascent could be offset by matching the fiscal expansion of the US; but while the US has no problem in financing its deficits, underdeveloped domestic capital markets, current rationing in external credit markets and the debt burden render it unsustainable for the LAC without

substantial collateral to follow US fiscal lead. Moreover, fiscal expansion the LAC would diminish the size of trade balance. As a consequence, the LAC has no choice other than to decouple from the dollar area by devaluating its currency. The exception is demonstrated by countries which can finance fiscal expansion by borrowing in credit markets. Oil reserves are the collateral to borrow against. Rosensweig (1984) is thus able to explain the decline of the dollar area in face of present US policies, a finding not obtainable in the usual two-countries float model. Oil exports support a dollar peg, but extensive trade outside the dollar area leads to exit from the dollar area. Both the model and the result share features with the literature on the “optimal peg” surveyed by Williamson (1982); the advantage of Rosensweig’s model is that it is based on explicit optimization. The conjecture on the optimal pattern following a credit shock may be interestingly integrated into Rosensweig’s model by imposing the requirement that the LAC country has to generate an expressive trade surplus.

The second interesting issue posed by dual exchange rate regimes is the optimal allocation of transactions between the two markets. Continuous financial speculation on black markets can lead to a smaller surplus in the trade balance as the large premiums stimulate over and under invoicing. In several cases, LACs maintain the official peg as a way of preventing the negative financial effects of devaluations discussed above, since it is the official rate that governs financial liabilities. Although the experiments on double official markets were not successful, the issue of insulation between real and financial aspects of devaluations through exchange markets deserves more study. The creation of futures markets on dollar-denominated assets may be a way out. In other cases, the official rate works as a subsidy to essential imports or tax on inelastic exports. Concern with trade liberalization has stimulated the adoption of multiple currencies regimes, by and large viewed as a preliminary step towards exchange rate unification-cum-trade liberalization. Trade liberalization foras the subject of next Section.

IV. Trade Liberalization

The theoretical superiority of free trade for small countries can hardly be challenged. The established arguments in favour of free trade, however, provide little guidance on the problems likely to be encountered during any liberalization effort. In this Section, recent contributions on the intricate problems of trade liberalization are reviewed.

In Islam (1984), a specific tax and export mix is shown to be preferable to exchange devaluation. The model is as follows. The economy produces a tradable export good X and a non-tradable consumption good Q out of labour and an essential imported input N. Imports also includes a competitive consumption good M. Wages are indexed to both consumption goods. The demand for Q is sensitive to real balances.

In the Islam (1984) model, a devaluation increases prices of X, N and M. The output of X increases although it is restrained to some extent by higher N prices and by wage indexation. The demand for Q increases by the income effect derived from sector X although restrained to some extent by the negative cash balance effect. The supply of Q decreases because of higher N prices and wage indexation. The net effect of the devaluation on Q is therefore ambiguous. In contrast, a tax/subsidy policy that spares the imported input while penalizing M and enhancing profitability in X has better results. The adverse supply effect is confined to wage indexation; and demand increases more than in the case of devaluation because the income effect derived from exports is stronger. The tax/subsidy scheme is to be combined with restrictive monetary policy to achieve desired Balance of Payments objectives.

In Arida and Bacha (1984), subsidies are justified when devaluation alters, not potential demand, but potential supply. In this alternative case, the dollar price of exports is constant, independent of the exchange rate. The devaluation increases profits in the tradable sector from both domestic and foreign sales. Production expands if there is excess demand; under excess supply, this is simply magnified by the devaluation. In the latter case, subsidization of exports is recommended. The subsidy creates a profit differential between domestic and foreign sales profitability; equilibrium is restored by lower dollar price of exports. The reduction in dollar prices expands potential demand and, under excess supply conditions, leads to an increase in export volume.

Barbone (1984b) focuses on a particular scheme of subsidies. In Colombia, non-coffee exporters are entitled to a marketable financial instrument carrying a variable rate of interest. Subsidies come as transferable bonds which accrue to exporters as a fixed share of export values. Given the underdeveloped State, of capital markets, the market rate of interest is given by the discount rate on these subsidy bonds. Monetary policy thus hampers competitiveness: higher interest rates lower the effective rate of subsidy. It is important to note, however, that this result of Barbone (1984b) survives in more general settings. Monetary policy interferes with exchange rate management, if the production of tradables requires credit or fresh investment. In Barbone's (1984b) model, the effect of devaluation on non-cot tee exporters is Indeterminate as the increase in competitiveness due to the devaluation is to some extent offset by the increase in interest rates caused by the larger supply of subsidy bonds. A coffee bonanza leads to less export diversification due to exchange rate appreciation and higher interest rates. Under the bond subsidy scheme, a financial Dutch-disease sets in (see also Edwards, 1984a). Moreover, a one-to-one partial replacement of the bond subsidy by a privileged exchange rate for non-coffee exporters is not neutral in the long run. The smaller bonds to financial wealth ratio is accompanied by a reduced trade surplus.

This last result of Barbone (1984b) shows that the subsidy bonds System is not equivalent to an official dual exchange rate regime. The turn to multiple exchange rates is often seen as a first step

towards trade liberalization; but trade liberalization, under this particular form, is shown to be detrimental to the country. A similar result is derived in Barbone (1984a). The replacement of a quota system in which quotas are tradable by an equivalent System of tariffs on imports is again often seen as a first but necessary step towards a free trade system. The effect of the shift to a tariff system in goods markets depends on whether tariff revenues are rebated or not; in the negative case, the resulting budget surplus is of course contractionary. Barbone (1984a) also claims that quota liberalization decreases wealth by imposing a capital loss on holders of quota rights. Since demand deposits are better substitutes for quotas than loans, trade liberalization leads to higher interest rates on loans with the ensuing contraction of output. The argument is unclear; under full rebate, aggregate net wealth of the public is unchanged. Under the plausible assumption that consumption rates for non-quota holders exceed that of quota-holders, full rebate has in fact an expansionary impact.

The results of Islam (1984), Arida and Bacha (1984) and Barbone (1984a, 1984b) are not meant to challenge trade liberalization as a long run *desideratum*. They indicate, first, that under certain circumstances trade distortions might be preferable than straight devaluations and, second, that naive liberalization may be detrimental to welfare in an economy where trade restrictions are a deep-seated feature. These results put research on the optimum dynamics of trade liberalization on the order of the day (see also Krueger, 1983).

Edwards (1984b) has surveyed the literature on one aspect of trade liberalization dynamics: the capital account versus current account order of liberalization problem. If the capital account is opened at a stage where domestic capital market is still repressed, with internal interest rates below external levels, massive capital outflows will take place (see also Edwards, 1983, for Chile). In these circumstances, betting against the Central Bank becomes a self-fulfilling prophecy: the probability of regime switch depends on the degree of belief in the capacity of the Central Bank to abort speculative runs by, in fact, switching the regime before they get momentum. If the capital is opened with domestic interest rates above external rates, the real exchange rate tends to appreciate because of capital inflows. But successful liberalization of the trade account requires a real devaluation of domestic currency. The conflicting movements of the real exchange rate create the order problem. Given the differential speeds at which goods and capital markets adjust, it seems preferable to open the current account first. Again, the initial depreciation of the exchange rate would be followed by an appreciation in the future.

The relationship between liberalization and debt forms an almost unexplored and yet critical PRF for LACs. On the one hand, liberalization of the trade account may lead the private sector to over borrow, as argued in Section VII below. The probability of a debt crisis increases with liberalization. On the other hand, trade liberalization is frequently implemented in face of foreign borrowing constraints. Since the real interest rate on debt is positive, trade liberalization in these

circumstances may be detrimental to the country. The point is that liberalization diminishes at least temporarily the trade surplus; the cost of liberalization is then given by the accumulated debt which could otherwise be paid out of trade surplus. The reluctance of heavily indebted countries against cold-turkey liberalization may be rationally justified. In both cases, liberalization increases the probability of either occurrence or persistence of debt crises. A definitive assessment of these issues, however, can only be done in inter-temporal models.

Two further results on the order problem, the second of them based on a rigorous inter-temporal model, are given by Edwards and van Wijnbergen (1984). The opening of the capital account in the presence of trade distortions may be welfare-reducing if foreign borrowing is used to increase investment. To avoid the immiserizing effects of capital transfers, shadow prices and non-domestic market prices ought be used. The second result pertains to the cold turkey versus gradualism approaches to trade liberalization. A two-period model with an externally imposed constraint on the current account forms the setting for a second best argument for gradualism. Rationing falls disproportionately on investment rather than consumption. Under cold-turkey liberalization, the pre-liberalization tariff is lowered to zero in both periods. Gradualism implies a zero tariff in period 2 but a lower but positive tariff in period one. The result is that a first period tariff, if not too large, is welfare improving. For it increases the consumption rate of interest; this leads to higher private savings, leaving more room for investment given the external current account constraint. Since most cases of trade liberalization take place under external balance constraints in which investment takes a disproportionate share of the adjustment burden, this case for gradualism is to be added to the previous argument relating to debt crises in giving a rationale for the otherwise obscurantist concerns of policy makers in LDCs about the dangers of trade liberalization.

V. Speculation

Speculation is frequently blamed in LACs as being inflationary and detrimental to growth. As it emerges in LACs policy discussions, it should be analytically captured by either exogenous changes in price expectations or changes in asset preferences. Central to LACs is speculation in land, food and foreign exchange markets.

Land is a non-produced asset. Keynes' (1936, chapter17) strictures apply: speculation shifts demand away from assets with positive elasticity to assets with zero employment elasticity. To the extent to which non-produced assets are at the heart of the unemployment problem (see Draze,1980), speculation increases current unemployment. If animal spirits are moulded by the current State of the economy, land speculation may lead to an inferior growth trajectory. This argument is to be qualified, however, by technical change which increases the relevant concept of land supply. Two lines of

research are of interest. First, urban land speculation in LACs is inflationary. Since housing is an important item in workers' consumption basket, a demand shift towards urban land is inflationary by the usual reasons stressed in core theories of inflation. Note, however, that this characteristic is not unique to land; food speculation would provoke the same consequences. Second, rural land speculation acts as a powerful incentive towards the capitalistic organization of production. The demise of traditional agriculture is facilitated by land speculation. To the extent to which capitalism proves to be more efficient, land speculation may actually enhance growth. The introduction of land speculation into the "scissors problem" of the terms of trade between industry and agriculture (see Sah and Stiglitz, 1984) forms a PRF when capitalistic industry is blocked by traditional arrangements of agricultural production.

In contrast, food is a produced good. If food can be both stored as an item of wealth and currently produced, food speculation is better dealt with by a redefined Tobin's q concept. Dutt (1984a) is one of the rare studies on food speculation. In Dutt's (1984a) model, however, agricultural output does not react to stock prices. The analysis is interesting when speculation is construed as a response to an exogenous and temporary shock such as a bad harvest. The model provides an analytical basis for the intuitive argument that price increases following a bad harvest may last longer with than without food speculation. While the result gives support to the claim that speculation plays an important role in famines, the absence of effects of stock prices on output inevitably leads to the conclusion that food speculation does not matter in the long run. A PRF lies in finding out conditions under which a Tobin's q analysis of food speculation may not generate the normal result, namely, that food speculation enhances food output. Under diminishing returns and fixed working capital, it may be conjectured that speculation may actually decrease production if the change in the rate of return on stocks brought by the speculative price increase exceeds the change in the rate of return on production at current output levels.

The case of exchange speculation is somewhat more complicated. Consider an active fixed real exchange rate regime. Capital Controls permit the Central Bank to peg the official exchange rate. If substitution between domestic and foreign imports is imperfect, exchange speculation as reflected in black market premium is inflationary to the extent to which imported raw materials are priced in the assessment of costs by black market quotations. Under these circumstances, exchange speculation is equivalent to a supply shock. Exchange speculation may be stagflationary when the Central Bank faces an acute shortage of foreign reserves. When the black market premium increases, official exports are postponed and imports anticipated. As a result, trade surplus decreases and reserves are depleted. Under and over invoicing schemes dampen to some extent the speculative increase in black market premium. But if the likelihood of official exchange devaluation is a function of reserves, the government may be forced to devalue in order to restore normal trade surplus. Exchange speculation

thus become a self-fulfilling prophecy (see Arida, 1984b).

In several foreign exchange constrained LACs., this capacity of exchange speculation of producing its own confirmation was often halted by interest rate management. The higher the domestic rate of interest, the more costly speculation becomes even for holders of foreign bonds. High interest rates were unable to deter successful exchange speculation when the exchange regime was inconsistent with other domestic policy variables, as in the Argentinean case; but the Brazilian experience showed that, provided major inconsistencies are avoided, exchange speculation can be effectively repressed by pegging the domestic interest rate at highly positive real levels even in the absence of reserves. But aborted exchange speculation imposed its toll. Monetary policy was contrived by pegging interest rates. High interest rates in turn decreased output because of investment while accelerating inflation by the Cavallo effect. The problems of exchange rate speculation under foreign exchange constraint for a PRF which extends beyond the consequences of foreign exchange being a non-produced asset.

Finally, one has to come with the frequently heard arguments against speculation on the grounds that it “dries up” credit. Field (1984) addresses the old theme of speculation as “draining” funds from the rest of the economy. The characteristic features of the asset subject to speculation matter little. Central to Field (1984) is the heavy trading caused by speculative spurts. Higher trading volumes can persist without necessarily giving rise to changes in asset prices; conversely, asset prices may rise or fall on very low levels of trading. As a consequence, the actual price of the speculative asset again matters little. The “draining” effect occurs when expectations change rapidly in different ways for different individuals. The transactions demand for money thus increases for given real income and interest rates as speculation is translated in heavy trading. Because of the dependency of transactions demand on volatility of trading volumes, a speculative spurt can increase interest rates, therefore substantiating the impressionistic arguments so common in LACs. Note, however, that speculation in this sense matters only to the extent to which information is differentially available or differently interpreted; the expectations that can lead to the “draining” effect is not rational in the established sense (as consensually based on the proper grasping of the true structure of the economy) but typically Keynesian (see Keynes, 1936, chapter 12).

VI. Interest Rate Management

The critique of the McKinnon-Shaw prescription of higher time deposits and tight money as the proper strategy to overcome inflation through higher savings and more financial intermediation has formed another *ostinato* theme in structuralist macroeconomics. The first round of models emphasized the Cavallo effect by which higher interest rates lead to more inflation because of

financing costs (see van Wijnbergen,1983a). Stagflation results if the elasticity of savings to interest rate is close to zero (see Giovannini,1982) or negative as lower consumption decreases output under the assumption of an independent investment function (see Dutt,1984b). The second round of models emphasized curb markets. If higher time deposits induce a portfolio shift out of an asset providing more intermediation than the banking system (e.g., loans on a curb market), raising time deposits is stagflationary (see van Wijnbergen,1983b). The third round has focused on hoarding or hedge assets. Taylor (1983a, chapter 5) shows that an aggressive interest rate policy is hardly recommended if the “gold” asset is not easily relinquished when bank deposit rates go up. In a rational expectations model which includes both curb market loans and inflation hedges, Park (1984) has shown again that raising interest rates is stagflationary. The novelty of Park (1984) is that the initial stagflation is aggravated as speculators draw on time deposits and curb loan markets to earn a windfall gain on “gold” prices. Some recovery of the perverse effect of the aggressive interest rate policy may occur as speculative gains are later converted into working capital.

Given this solid background of serious criticism, one can hardly maintain that investigating the truth of the McKinnon-Shaw doctrine remains a PRF today. Reality itself contributes to this judgement. The attempts to implement the doctrine have failed; moreover, most LACs can no longer be described as financially repressed. In fact, domestic interest rates have been much higher than the external world interest rate. Instead of financial repression, it is the financial openness of processes of interest rate determination which is more likely to form a FRF for LACs.

Interest rate determination in most LACs can hardly be described by closed economy models in which the short term real interest rate may deviate from the long run equilibrium by the liquidity effect. True, open economy determination by the arbitrage condition does not apply exactly in most cases. Exchange and capital Controls certainly blur the equalization of the domestic rate to the external rate plus expected depreciation. Yet two factors have rendered the open economy model increasingly appropriate. The first is dollarization. To the extent to which dollar holdings form a sizeable proportion of financial wealth, unstable movements in black market premium tend to validate the arbitrage condition. The second are dollar denominated liabilities. Heavy external borrowing caused the external interest rate to govern a substantial part of domestic liabilities. Arbitrage occurs between domestic currency and dollar-denominated liabilities; the functioning of the economy resembles that described the fully open economy model except for the fact that no transactions in real dollars take place. The first factor pertains to domestic wealth holders; the second, to indebted domestic firms.

Under external credit rationing, the arbitrage condition should be replaced by an inequality. We shall denominate the sum of the external rate and expected depreciation premium as the natural interest rate. If the domestic rate is below the natural rate, both domestic firms and wealth holders

borrow on domestic capital markets. The former borrow to prepay the dollar-denominated debt; the latter to invest abroad. The excess demand on domestic capital markets increase the interest rate until equalization to the natural rate obtains. If the domestic rate is above the natural rate, however, neither domestic firms nor domestic wealth holders can borrow abroad because of credit rationing. It is the external credit rationing that reconciles financial openness with the widely observed practice of pegging the domestic interest rate by monetary policy: interest rate pegging is possible above, but not below the natural rate.

The reference to the real bills doctrine or to the price level indeterminacy problem is not appropriate in this context. (See McCallum, 1984, for a restatement of the indeterminacy argument). For in several LACs, Central Bank pegs the real rate of interest and not the nominal rate as described in the recent literature reviving the real bills doctrine. The common arrangement for pegging is forward-looking. Given the best forecast p for inflation over the next month or week, the Central Bank stands ready to lend as much as needed at the nominal interest rate $i = p + r$, where r is the target real interest rate. What gives sustainability to the interest rate pegging? It is well known that an economy in which the real balance effect is operative, the Central Bank can permanently influence the real interest rate by its money creation activity. This implies that higher steady State inflation will be associated with lower real rates of interest up to the level given by the natural rate; from this level on, however, monetary policy can no longer alter the real interest rate. Another more plausible sustainability argument can be made drawing on effective demand. The higher the interest rate, the smaller private investment is; equilibrium is restored by fiscal deficits which compensate the deficiency of demand caused by high interest rates. To the extent to which fiscal deficits are eventually financed through money, higher steady State inflation will be associated with higher interest rates. A decrease in the pegged interest rate would allow a decrease in fiscal deficit and inflation up to the floor given by the natural rate. The two steady State sustainability arguments give opposite implications; but they make clear that there are no intrinsic forces in the economic system which may impose equalization with the natural rate under external credit market rationing.

Two conjectures on the optimal interest rate management under binding external credit constraints can be offered. The first is that there is no justification on normative grounds to peg the interest rate above the natural rate. For a situation in which the external credit constraint is binding is of necessity inferior to a situation in which credit markets operate normally. A second conjecture is that it is costly to run against market expectations. The advantage of the optimal exchange rate path sketched in Section III is that along this path the devaluation premium is either nil or transformed into an appreciation premium; as a consequence, along this path equalization to the natural rate leads to lower interest rates than along paths characterized by timid devaluations that perpetuate the devaluation premium. The optimum exchange rate management gives the maximum rate of

investment because it minimizes the domestic exchange rate without violating the natural rate lower limit.

If the first conjecture on the optimality of equalization of the domestic interest rate to the natural rate holds true, a PRF is given by investigating the optimal strategy of promoting this equalization. One obvious candidate is interest rate pegging. In favour of it lies the common belief that interest rate floating to clear domestic capital markets is as undesirable as exchange rate floating to clear exchange markets. Yet this isomorphism belief lacks theoretical justification as far as I know of; its claim to truth deserves further investigation. Against interest rate pegging is the fact that the natural rate depends on the expectation premium, a variable which cannot be observed directly. Under interest rate pegging, the fluctuation in the premium is observed through unexpected variations in the quantitative accommodating variable (typically money).

Another strategy for promoting equalization to the natural rate is market determination. With some modifications to eliminate transaction costs, the Brazilian case (see Dornbush and da Silva, 1983) might provide a model for this alternative mode of equalization. Firms indebted in dollars are allowed to prepay the debt at any given moment by making a deposit of the corresponding amount at the Central Bank at the ruling exchange rate. If the domestic interest rate is lower than the natural rate, indebted firms borrow on domestic capital markets, thus driving the domestic interest rate to equalization with the natural rate. The interesting part of the arrangement is that it works the other way around. If domestic interest rates are too high, firms can draw on dollar-denominated deposits. The corresponding inflow of money drives interest rates down. It thus possible to assure equalization by market forces without having to open the capital account.

Two arguments can be made against this mode of equalization. First, it implies that exchange risk is borne by the Central Bank on the total amount of prepaid foreign debt. A correction for this distortion is suggested in Section VII below. Second, it holds for economies in which financial openness manifests itself through dollar-denominated debt, as it is the case in Brazil. For dollarized LACs, such as Argentina, interest rate pegging may be the only feasible alternative since a sizeable proportion of dollar assets have no clear legal status.

A final issue of interest is the problem of inconsistency in model closure. In the Gibson, Lustig and Taylor (1983) model for Mexico, two price closures are considered: a Marxian closure which constrains the economy to a wage-profit-terms of trade surface and a “Keynes-Kalecki” closure in which prices are determined by a fixed and exogenously given mark-up over prices. Yet if the interest rate is given by external rates, the two closures would be modified. The “Keynes-Kalecki” closure would be determinate: mark-ups are such that arbitrage holds between the profit rate on non-financial capital and the natural rate of interest. In the Marxian closure, inconsistency may emerge if the profit rate compatible with the natural rate of interest is not validated by effective demand. From the

viewpoint of class conflict general equilibrium models, revisiting previous results in the light of the natural interest rate is a PRF.

VII. Government Behaviour

The conservatism of present times has replaced the Keynesian emphasis on market failures by a growing concern over public failures. Policy misbehaviour is seen at the heart of inflation, Balance of Payments and unemployment problems. Instead of inexorably operating to eliminate imperfections and to articulate citizens demand for public Services, government is perceived as operated by utility maximizing individuals whose budget constraints are given by the particular cost-reward structure they confront. The problem of how to design government Systems and policy rules preventing bureaucrats and politicians from inflating or indebting the economy is in the order of the day. Of specific interest to several LACs is the problem of penalizing governments against tampering with, distorting or obscuring statistics relevant to private decision-making.

Interests groups, however, ought not be ignored. Much of current theory is cast in atomistic terms. But however abstract government may be portrayed, it is backed by, and responds to, specific interest groups. There is no reason to expect interest groups endowed with political leverage to not act rationally to increase their share in income. Market failures may provoke public failures. Unsustainable attempts at exchange rate appreciation or pursuing explosive paths of indebtedness are phenomena that cannot be understood without reference to the political economy of government behaviour. Electoral cycle models illuminate solely one aspect of this PRF.

Leaving aside interest groups, there are some lines of research which can be pursued without having to specify the social matrix. The first is given by the bankruptcy constraint. It seems useful to model government behaviour in LACs (and probably in developed countries, too) under the assumption that it will not allow widespread bankruptcies to develop. An economy-wide level of bankruptcy risk, as expressed by the inability to meet current cash transactions and rising intermediation costs, may exacerbate recessions (see Bemanke:1981, 1983b). Net social costs caused by bankruptcies are augmented by their disastrous consequences for the ruling group or party. The bankruptcy constraint in LACs is important regarding exchange risk, inertial inflation and financial instability. These three sources of bankruptcy risk will be examined in turn.

An exchange rate devaluation poses a bankruptcy risk for private firms indebted in dollars. Both the fear of internal disarray and political pressure exerted by foreign banks curiously oblivious of free market ideologies concur to force government to offer exchange rate guarantees by which exchange risk is explicitly absorbed by government (see Diaz-Alejandro, 1984). Alternatively, it may buy assets of indebted firms at favourable prices; or it can sell to indebted firms (and multinationals) a hedge

against exchange risk (typically a government bond with exchange indexation clauses). Irrespective of the fora, the exchange rate subsidy severely deteriorates the budget. Given the burden of external debt, the larger the probability of government finding necessary to devalue, the stronger the latent tendencies towards budget disequilibrium. This suggests that the assessment of intertemporal budget deficits in heavily indebted LACs requires allowance for the bankruptcy constraint; the larger the private non-insured debt outstanding, the more important this allowance becomes. The reverse argument also holds. Aware of the bankruptcy constraint, government will seek overvaluation or will push to its extremes the chances of succeeding in adjusting to an external crisis without depreciating the exchange rate. All external shocks are assumed to be temporary unless their persistence renders impossible not to recognize their permanent character.

This suggests an interesting conjecture. Without the exchange subsidy, private borrowing in dollars would be smaller. To the extent to which private sector anticipates that it will be bailed out by government, moral hazard behaviour sets in. Moreover, an exchange rate subsidy permits government to meet obligations in foreign exchange for a longer period than without the subsidy because private borrowing cannot be perfectly replaced by public borrowing. The capacity to postpone the collapse by exchange subsidies magnifies even further the over-borrowing effect. Finally, because of the subsidy, the government tends to delay the adjustment and continues to borrow until the foreign credit constraint becomes binding and the country is forced to become a capital exporter. The conjecture that naturally emerges from this discussion is that exchange subsidies had a crucial role in the over-indebtedness of LAC. A crucial difficulty in proving the conjecture lies in the absence of a theory of optimal external indebtedness; given the uncertainty in external environment, evidence on the incapacity to pay is no proof of over-indebtedness unless backed by rigorous theorizing.

Turning to inflation, it stands to reason that either in a flex-price world or in a world where contracts are perfectly price-level or inflation-contingent, demand policies to reduce inflation are almost costless. But inflation, at least in LACs, does not unfold in these ideal worlds. Legal or informal indexed contracts staggered over time imprint inertia to inflation (see Section IX below). A liquidity squeeze would be translated into bankruptcies as the lack of demand impedes firms to meet contractual obligations. Bankruptcies become more acute the more successful the liquidity squeeze is. In the Brazilian case, an abrupt decline of inflation from 200% to 0% in one year leads to an increase in real wages of approximately 30% since 100% plus indexation applies every six months. When the inertial component of inflation is large, active monetary policy violates the bankruptcy constraint. This explains why governments in LACs committed to, or forced to comply with, tight money targets defined over the stock of high powered money or eventually assured liquidity status to a more inclusive aggregate. The awareness of the bankruptcy constraint also explains the diffusion

of indexed contracts; it lies at the root of the inflexibility of inflationary expectations observed in chronic processes of inflation in several LDCs. Were agents not aware of the bankruptcy constraint, the degree of belief in non-accommodating monetary policies would be greater. Accordingly, the incentive to index contracts would be smaller and the inertial component of inflation would be less important.

The conjecture that emerges from the above discussion is that awareness of the bankruptcy constraint leads to over-indexation. As in the case of exchange risk, the difficulty of proving the conjecture lies in assessing what optimal indexation is. The larger sensitivity of inflation to supply shocks under indexed systems is to be balanced out against the advantages of neutralizing to some extent inflationary distortions. Indexation is a natural response of agents to inflation once inflation is perceived to reach a chronic stage. If there are costs in indexing, as experience suggests, the incentive towards indexation depends on the belief that money will accommodate. Awareness of the bankruptcy constraint reinforces this belief, thus leading to over-indexation.

The bankruptcy constraint operates most visibly still in connection with financial instability (see Diaz-Alejandro, 1983). The LACs' experiences with financial deregulation showed a recurrent pattern. Easy access to financial intermediation and less controls on the asset side led to increasing levels of risk. When bankruptcies developed, government was forced to insure demand and time deposits. In the extreme case of Chile, the needed rescue operations rendered government directly responsible for more than 75% of the entire banking system. Again, the conjecture here is that the awareness of the bankruptcy constraint induces financial intermediaries to overexposure in the asset side. Since the probability of government underwriting the intermediaries' portfolio risk is perceived as being high, the adoption of prudence standards was not rational. In most experiences of deregulation in financial markets, the distinction between the lender of last resort and the socializer of private losses was artificial. Irrespective of written rules, even dictatorships realized that it was politically impossible not to honour the implicit 100% insurance on deposits of financial intermediaries.

In the three cases the awareness of the bankruptcy constraint by private agents led to undesirable consequences: over-indebtedness, over-indexation and over-exposure. It is remarkable that the socialization of private losses was only in effect when losers were firms as opposed to individuals. Workers were hardly compensated for declines in real wages; nor were profit-recipients compensated by losses in stock markets, black markets or land markets. Inequalities in political power determined, to a sizeable extent, the private beneficiaries of the socialization processes. Inequalities, however, do not suffice as the *explanans* of socialization. The fact that in the recent experience of several LACs, dramatic declines in unemployment were not followed by waves of bankruptcy indicates the concern of policy-makers with organizational capital (see Arida and Lara-Resende, 1983). Models that do not

recognize firms as more than flexible bundles of workers and fixed capital can hardly capture the difference between the bankruptcy constraint and the unemployment constraint.

Whatever the explanation for the social costs involved in bankruptcies, the quest for proper government behaviour remains. The obvious conjecture is that government should charge a price for bankruptcy Insurance. In the case of exchange risk, either the cost of funds borrowed abroad should include the Insurance premium or the hedge Instruments should be sold at a premium or the exchange guarantee should be a marketable instrument sold at a price. In the case of financial instability, deregulation, if deemed desirable on competitiveness grounds, should be accompanied by Insurance taxes on profits of financial intermediaries. In the two cases, the determination of the optimal Insurance policy is a PRF. The Insurance conjecture, however, probably does not hold true regarding inertial inflation. In the former two cases, the Identification of the risk-bearer presents no difficulty. An Insurance against a liquidity squeeze under inertial inflation seems hard to set up. As a consequence, therapies other than the monetary crunch have to be devised to deal with inertial inflation. Monetary reform forms the subject of Section IX below.

Apart from the bankruptcy constraint, government behaviour in LACs is subject to political constraints on expenditures and taxes. These constraints are deemed to account for the discrepancy between actual government behaviour and the optimal behaviour prescribed by Barro (1983). In Barro's (1983) model, a permanent loss in revenues would be immediately and fully offset by higher taxes and reduced outlays, leaving debt unchanged. In face of a transitory shock, debt finance would bridge the budget gap in the short term; small taxes and outlay changes would assure in this case the intertemporal solvency of government.

Actual behaviour of government in several LACs seems to be the opposite: government accommodates permanent shocks while responding in the short run to transitory shocks. Political constraints on the rate of expenditures or the rate of increase in taxes explain partially (at least) the failure in following the tax smoothing behaviour. Dornbush (1984) gives additional reasons for departing from the Barro (1983) model: the difficulties of separating out transitory from permanent disturbances, discount rates in excess of market rates because of government constraint and the necessity (for LACs and other poor countries as well) of maintaining minimum standards of living for the maximum time possible.

Another PRF regarding the failure in following tax smoothing optimal behaviour is opened up by dynamically inconsistent policies. Debt repudiation and taxation on interest on debt are examples of outcomes which, if duly recognized as possibilities which may be socially desirable under certain circumstances, may provide a rationale for accommodating large shocks through explosive debt trajectories. Calvo (1978) has shown that governments maximizing the inflation tax revenue have an incentive to be dynamically inconsistent. Accommodation of large shocks through debt may provide

another case of incentive to inconsistent behaviour. As a conjecture, the adaptation of the problems of regime switching such as discussed in Flood and Garber (1980) may provide an interesting framework for dynamic inconsistency. Because of uncertainty, in some circumstances to reconsider obligations incurred in the past may be inevitable (see Fisher, 1983); moreover, the time consistency requirements posed by models that ignore Keynesian uncertainty should not obscure the fact that, in a fundamentally uncertain environment, some degree of dynamic inconsistency may be desirable. Garber (1980) in hyperinflations may be replicated, *mutatis mutandis*, for the debt repudiation problem in hyper indebtedness processes.

Another solution to the failure in following Barro's (1983) tax smoothing prescription may be obtained by specifying the social matrix. Going beyond atomistic models is a PRF in connection with this problem. Consider the following setting. Workers do not hold government debt. Because of effective demand, employment is sensitive to government outlays. In face of a permanent budget shock, workers' first choice would be equilibrating the budget via taxes on capital. The second choice would be additional finance through debt. Profit recipients' preferred solution differs. Under mark-up pricing and fixed labour to output ratio, a cut in government outlays would jeopardize profits by reducing demand. Ideally, budget equilibrium would be restored by taxes on wages or, if public servants form a sizeable proportion of total employment, by smaller wages. The second choice of profit recipients is debt finance.

The conjecture is that debt finance emerges initially as a social compromise. In non-Marxian theories, a game theoretical approach should be used; in Marxian theories, Elster's (1982) variational rationality would account for this strategic class or group behaviour. Each class holds the hope of winning in the future. Debt finance is more likely to emerge in contexts in which the result of social conflicts on how to equilibrate the budget is unclear. The more permanent the shock is perceived to be, the stronger the Incentive to compromise on second choices. This "political economy" conjecture would thus generate a result opposite to Barro's (1983). The conjecture would also explain why government deficit is not fully matched by private savings. Since holders of debt believe that workers will bear the future tax increase, they do not offset deficits by increasing either current or future savings. If true, the conjecture would give additional support for an endogenous wealth concept. In Taylor's (1983b) defence of endogeneity of wealth, the State of confidence plays a crucial role. Here, endogeneity follows from uncertainty on the resolution of social conflicts. Since no social class anticipates that it will have to absorb the debt burden, perceived social wealth is greater than wealth that would result from a perfectly foreseeable future. As the problem of assuring government solvency becomes acute, two conflicting Solutions emerge. Workers favour debt default or wealth taxes to alleviate the debt burden; profit recipients prefer taxes on wages or at least cutting expenditures to government not honouring its obligations. The similarities between this "core" theory

of government debt to the core theories of inflation form another PRF.

VIII. Distribution

Distribution is central to LACs for at least three reasons. First, the *status quo* is deemed to be unfair. Policies to improve income and wealth distribution are called forth on normative grounds. Second, this unfairness is said to be detrimental to growth in that, being perceived as such, it causes conflicts on income shares which are at the root of inflation. Social pacts are offered as remedies. Third, the impact of redistribution on growth is unsettled. The stagnationist argument challenges the conservative desire to preserve the *status quo*. New developments are reviving the interest on those issues.

In Arída (1984a), the fairness of income distribution is discussed through the Metzler's condition on the transfer problem. There are two groups, A and B. The fair distribution is given by the relative effort supply of these two groups. The actual distribution coincides with the fair distribution only if the proportion of income spent by the two groups on their own products is equal. The larger this common proportion, the more articulated society is. If demand internalization by group A is greater, the resulting distribution is unfair to B – B's share of output is smaller than its relative contribution. In open economy terms, the result is of interest in connection with Southern growth problems. The measuring rod of fairness may be applied to perverse North-South trade effects (see Taylor, 1983a, chapter 10). The Metzler condition is also crucial in van Wijnbergen (1984b). A government deficit will lead to an appreciation of the exchange rate of country A with the government deficit if A spends relatively more on A goods than B does. Subject to the decoupling issues discussed in Section III above, further work along van Wijnbergen's dollar appreciation leads to an unfair distribution of income on world grounds.

Turning to social pacts, the dismal reality is that, in spite of the importance of the theme, its intrinsically political economy nature has apparently deterred serious theorizing. Collective action models might provide a starting-point. The comparative behaviour of alternative social arrangements is also worth investigating. Could core inflation remain insensitive to the widespread adoption of profit-sharing schemes? The correct answer is probably negative: the advantages of profit-sharing schemes in LACs go beyond those deriving from the incentives to absorb technological change frequently emphasized in developed economies. Another PRF is given by developing a general theory of contracts and applying it to social pacts. Suppose spot markets exist for all goods and Services. If parties A and B are tied up by a voluntary contract that contrives their action in the future, it is because the reduction in uncertainty in price or quality of goods and Services brought by the contract is to the advantage of both of them. But the uncertainty relevant to most decisions can hardly be analytically

depicted by stable probability distributions over a field of known possible events. Keynesian uncertainty may be desirable. Party A may not be willing to engage in a life-long and encompassing contract with B because no contingent contract could exhaust the (unknown) richness of future possibilities. This suggests that there is an optimal degree of contractualization in society: uncertainty is to be reduced and preserved at the same time. This sketch of the determinants of contract engagement holds for individual agents; collective action dimensions should be included in to derive a positive theory of the conditions under which social pacts may emerge.

The third aspect of distribution is its relation to growth. Interesting models of distribution in LACs depart from the full employment of labour and capital assumption. In Dutt's (1984c) model, improving income distribution brings more growth. Shifting income to workers stimulates investment demand via an accelerator effect. This unambiguous result, however, does not survive in Taylor's (1983c) two-sector model.

In Taylor (1983c) one sector produces wage-goods while the other (the P sector) produces both consumption goods consumed by profit recipients and capital goods. Incomes policy shifts demand towards wage goods as taxes on profit recipients' consumption is transferred to wage earners. The result obtained is that the net result on income distribution and growth is uncertain. Shifting demand towards wage goods would shift income distribution towards profits (or wages) if the P sector (the wage-goods sector) is the low productivity sector. The reason is that mark-up rates in the two sectors vary inversely with labour-output ratios. Suppose the wage-good sector has lower productivity. Distributional improvement is then certain; but it may come at the cost of slower growth if the P sector investment is more sensitive to profit rates than investment in the wage-good sector. Ideal conditions for incomes policy obtain if the wage-sector exhibits less productivity and higher dynamic investment response to profit rates. Although these conditions may be true in some plausible circumstances, there is no *a priori* guarantee that the impact of incomes policy on distribution and growth is necessarily positive.

The same qualitative results emerge from the one sector model of Taylor (1984). In the short run, mark-up m is given and governs distribution. Either in short or long run, a simple relationship holds between the profit rate r , mark-up m and capacity utilization: the larger m or capacity utilization, the larger r . Two cases are distinguished.

In case A, an increase in m decreases r . First, because the larger share of capitalists in income lowers effective demand. Second, because it drives up inflation. Higher inflation leads to an appreciation of the exchange rate that reduces profit by drawing in more imports. But long-run equilibrium can only obtain when $r = r^*$, where r^* is the natural profit rate at which price and wage inflation are equal. If r is greater than r^* , prices increase faster than wages; both mark-up rate and profit share vary pro-cyclically. These relationships are reversed in case B. In B, an increase in m

increases r . If Fisher arbitrage does not hold, the acceleration of inflation caused by higher mark-up rates decreases the real interest rate. This stimulates investment, thus raising the profit rate. But as r rises, a profit squeeze sets in. Prices accelerate less than wages; the mark-up rate and the profit share vary counter-cyclically.

Both cases A and B provide stable steady State Solutions. The impact of a permanent increase in fiscal policy, however, differs. In case A, expansionary policy increases the profit rate beyond r^* . Mark-up rate increases until the profit rate falls back to the natural rate r^* . In the new equilibrium, there will be a higher mark-up rate and lower capacity utilization. Case A is the orthodox case: expansionary government policies render income distribution more unequal and core inflation higher. In contrast, in case B an expansionary policy leads to smaller steady-state m values and thus to larger rates of capacity utilization. It also reduces core inflation. The transition to those pleasant results, however, is more complicated. Expansionary fiscal policy increases first both Inflation and the profit rate; the positive effects come only in a later stage. Political courage is thus needed to implement expansionary fiscal policy in case B; but courage pays as rapid growth will ultimately slow inflation.

Of interest is the reconsideration of these results when asset markets are brought into the picture. The effect of the profit rate on money market equilibrium is left unrestrained. Consider an increase in profit rate and capacity utilization. Investment crowding-out obtains when the increase in r must be met by a rise in interest rate to restore monetary equilibrium by depressing the otherwise too high money demand. Investment crowding in obtains when the higher profit rate pulls asset preferences from money towards equity. In this case, the interest rate has to increase to restore monetary equilibrium. The effect of inflation on monetary equilibrium is also left unrestrained. An increase in inflation may decrease the real interest rate (disregarding Fisher arbitrage). Asset holders shift away from loans and towards money and equity; the nominal interest rate rises to restore monetary equilibrium. But an increase in inflation may induce wealth holders to flee from money towards all other assets. In this case, the nominal interest rate has to decline to assure monetary equilibrium.

The key result, again, is that cases A and B behave remarkably different. Expansionary monetary policy has the same effects on the real side under the two cases as the permanent increase in fiscal policy. But in case A, easy money reduces the steady State real interest rate; the opposite happens in case B. The result under the orthodox case illuminates the aversion of rentier classes to easy money. But in case B rentier classes should in principle support expansionary monetary policy unless their time discount factor is too high. For although the real interest rate is higher in the new steady State, it could decline en route.

Taylor (1984) is closed by focusing on Hilferding and Minsky (see also Taylor, 1983b) instability crises. An interesting extension lies in specifying the distribution of wealth. In several

LACs, the capacity of shifting away the inflation tax on liquid assets is class determined. Workers do not typically own equity; their transactions demand for money is relatively larger; changes in interest rate affect their wealth as housing represents, by and large, the bulk of accumulated savings. The list of class-dependent aspects of wealth allocation could be easily expanded. In Taylor (1984) classes are crucial to the dynamics of the real side and to income determination; but asset markets and wealth decisions are based on “the public”. The suppression of this methodological imbalance opens up a PRF regarding distributional issues. Of particular interest is to verify whether the specification of the social matrix regarding asset markets and wealth would enlarge the list of stable steady state equilibria beyond cases A and B already analysed in Taylor (1984).

IX. Inertial Inflation

The critique of naive prescription of tight money as a strategy to curb inflation down is already vast and still expanding. Arguments come from the most diverse models. As an example, consider Taylor (1984) and Liviatan’s (1984) standard monetary-growth model of the Sidrauski-Brock type. In Taylor (1984) long-run neutrality does not obtain. Expansionary monetary policy leads to higher steady State inflation in case A but to *lower* inflation in case B. In Liviatan (1984), the tightening of monetary policy leads to a uniformly *higher* rate of inflation under a sensible (although certainly not unique) definition of the constant-budget-deficit condition. (See also Buiter, 1983, for a discussion of deficit concepts).

Common criticism in LACs, however, is less sophisticated. The dismal record of tight money (and exchange appreciation) strategies to curb inflation down is attributed not to theoretical pitfalls but rather to the inertial component of inflation. Inertia, of course, is not unique to LACs (see Gordon, 1982, for the United States). Taking recognizance of inertia poses the quest for its understanding.

McCallum (1980) emphasized the dimensions of optimizing behaviour that lead to set prices in advance. Some inadequacies of his argument, apart from the implausible firm-worker construct, are pointed out in McCallum (1983). In Mussa (1981), inertia is compatibilized with profit-maximizing behaviour by invoking lump-sum costs in changing prices. These costs, however, are not sufficiently specified to allow one to devise an anti-inflation strategy that would eliminate the inertia component. In Blanchard (1983) model, inertia derives from asynchronization of price decisions. All price decisions are taken every two periods; depending on the stage of production, firms revise prices on period 1 or 2. Competition means that the expected zero profit condition applies over the two periods for all firms. In Arida and Lara-Resende (1984) inertia derives from one specific characteristic of Brazilian inflation: contract indexation.

In Arida and Lara-Resende (1984), both labour and non-labour contracts are indexed to the general price level. Indexation takes the form of backward-looking clauses that readjust nominal contract values at fixed length time intervals. In the Brazilian case, the average indexation period is six months. Full or 100% plus indexation applies. Not honouring the indexation clause is very costly. Contracts are staggered over time; money accommodates.

In this setting, the on-going rate of inflation perpetuates itself even if the real fiscal budget is in equilibrium and no supply shocks are under way. Inflation is inertial under these circumstances: the best predictor for future inflation is past inflation itself. Inertial inflation obtains because of indexation. At every point of time, the nominal value of a contract is revised upwards. Then at every point of time events that happened up to six months in the past are brought to bear to current inflation. Six months becomes the extent of the past kept in the memory of the economic system. A success in bringing down inflation in period t , say, is undermined by the fact that contracts revised in period $t+1$ testify the higher inflation rates that prevailed from $t-5$ to t .

The characterization of inertia in Arida and Lara-Resende (1984) is not in conflict with distributive theories of inflation. If inflation is stable, a distributive *status quo* obtains. The same *status quo* could be associated to any other rate of inflation and particularly to price stability; the on-going rate of inflation testifies to the history of the system, but has no privilege against any other rate. Indexation keeps the past alive; eliminating the memory of the economic system is one possible way of breaking down inflation inertia.

Memory disappears in hyperinflations. To understand why, note that the average indexation period of 100% plus indexation contracts is an endogenous variable. The real value of contracts in the above setting depends on two variables: the inflation rate during the indexation period and the length of the indexation period. Given the indexation period, the higher the inflation rate, the smaller the real value of the contract. Given the inflation rate, the shorter the period between readjustments, the higher the real value of the contract; or, as put in Bacha and Lopes (1983), the larger the number of readjustments in a given arbitrary period, the more responsive to current inflation wage increases become. Because of the transaction costs involved in recasting contracts, minor accelerations of inflation are not offset by reductions in the indexation period. But the losses caused by large accelerations of inflation render the legal recasting of contracts inevitable. The higher the inflation rate, the smaller the indexation period tends to be. One of the hidden secrets to the success stories on how hyperinflations end is that all the presumed conveniences of long indexation periods are overridden by the need to revise contract values almost continuously during hyperinflations. Inertia therefore disappears. The sudden end of hyperinflations stressed by Sargent (1982) provides little basis for criticizing core theories of inflation which apply to situations in which conventional monetary and fiscal policy impose high costs because of substantial inflationary inertia. To provoke

hyperinflation to shrink the memory of the economic system, however, is obviously sub-optimal.

Three strategies have been suggested. The first consists in removing the frictions that account for the sluggishness in reducing the indexation period. The argument is that the smaller the transaction costs involved in recasting contracts, the smaller the inflation rate needed to obtain a given contraction in the memory of the economic system. The danger of this strategy is that more perfect indexation increases the vulnerability of the economy to supply shocks.

The second strategy is the wage and price freeze. The problem is the volatility of relative prices at high inflation caused by indexed contracts. Since contracts are staggered, it is only through time that relative prices achieve equilibrium. To freeze nominal prices at any given day by legislative fiat would in all probability freeze inconsistent relative prices. Inconsistency as well as any shocks to supply and demand would be absorbed by rationing devices. The lifting of the freeze in this case is likely to be followed by pressures to restore previous relativities which would revive inflation. A successful freeze depends on solving the nearly unsurmountable practical problem of adjusting freeze prices to the time elapsed since the last pre-freeze increase. Another complication derives from betting against the freeze. If agents believe that the freeze will not last, velocity increases; unless the Central Bank reduces money supply adequately, the expectation of a collapse of price Controls becomes self-fulfilling (see Solimano, 1984, chapter 2).

The third strategy to eliminate inertial inflation was put forward by Arida and Lara-Resende (1984). It is the Pareto-superior dual to the freeze: instead of stopping prices by legislative fiat, it gives agents the option of switching to indexed money. The Monetary Reform strategy has three elements.

The first element is the introduction of new money (NM). On a pre-announced date, the NM will be put into circulation. During the transition period, NM and old money circulate side by side. The rate of exchange between old and MM is revised daily. The NM appreciates daily in accordance with the general price index in the old money. Agents are free to convert old for NM or vice-versa. The Central Bank accommodates the demand for NM.

During the transition period, inflation in NM is, by definition, nill. The superiority of the NM in terms of the three functions of money – as store of value, unit of account and unit of transaction – is obvious enough to induce a rapid switch of price quotations towards the NM. At the same time, agents are expected to exchange old for NM rapidly because of the inflation tax on old money holdings. As the number of prices quoted in NM increases and the stock of old money approaches zero, the very notion of a price index in terms of old money becomes deprived of meaning. The price level in NM after the transition will be constant not by definition, but as a result of eliminating inertial inflation. Needless to say, if inflation before the monetary reform is essentially non-inertial, price stability in NM would hold only during the transition and Monetary Reform would cease to have a

sensible rationale.

The second component is a conversion rule for contracts indexed in the old money. 100% plus indexation clauses in the old money will not be abolished. It will be possible, however, to opt for a conversion of both labour and non-labour contracts in NM in accordance with a definite formula. The conversion formula would calculate the average real value of the contract over the previous period and transform it into NM. The conversion formula is not intended to give gains or losses to those switching to NM contracts; it replaces the peak-and-valley pattern of real contract values which cause inflation inertia by constant real values. As an incentive towards shifting to NM contracts, the depreciation of old money can be set at a rate slightly above inflation.

The economy that emerges from the Monetary Reform proposed in Arida and Lara-Resende (1984) is a non-indexed economy. On the one hand, contracts rewritten in NM have no indexation clauses. On the other hand, money indexation disappears with the old money. For NM is indexed to the price level as calculated in terms of the old money; it is not indexed to the price level in NM. In contrast to Arida and Lara-Resende (1984), money indexation as a permanent feature of the fiduciary system has been suggested by Hall (1983) and Arida (1984b). In Hall (1983), money indexation stabilizes the price level in face of innovations in money demand; in Arida (1984b), money indexation forces government to rebate the inflation tax, thereby diminishing the attractiveness of inflating the economy (see also Fisher, 1982, on money indexation as a permanent feature of the economic system).

The third element of the Monetary Reform is the solution to the anchor problem. The NM will be an asset in high demand. Since it is protected against inflation, a sharp decline in velocity is to be expected. The seignior age gain would outweigh the losses in inflation tax. But the ultimate success of Monetary Reform depends on the determinants of the supply of NM. Equilibrium in the real fiscal budget is, of course, a pre-condition for Monetary Reform. But how can agents be assured that government will not reflate the economy? Reputational reasons alone can hardly be sufficient. A possible solution, more realistic than rendering money indexation a permanent feature of the economic system (see Arida, 1984b), is to impose tight limits on the supply of NM. But because the fall in velocity is probably large, tight supply of NM forces the government to choose between violating the limits or permitting massive over-contraction.

Another solution is to anchor the NM on the exchange rate. Pegging the exchange rate in the passive sense, however, is not feasible for LDCs subject to external credit rationing. The third aspect of the Monetary Reform put forward in Arida and Lara-Resende (1984) is a Wicksellian solution to the anchor problem. As discussed in Section VI above, LDCs with large stocks of dollar denominated liabilities may promote interest rate arbitrage without having to switch to passive pegging of the exchange rate. To appreciate the Wicksellian solution, consider an unexpected increase in money

demand. Domestic interest rates increase. If the NM is anchored to the exchange rate, an inflow of foreign capital occurs. The expansion of monetary base accommodates demand and brings the domestic interest rate down to the natural level r^* . While no inflow of foreign capital occurs under the Wicksellian solution, domestic firms increase their indebtedness in dollar-denominated assets. If Central Bank accommodates the larger demand for these assets, monetary base expands until the domestic interest rate is again equal to r^* .

There are two unsettled issues posed by the Monetary Reform strategy which deserve emphasis. One is the feasibility of extending it to dollarized LACs. In dollarized economies, the NM would have to compete with the dollar. Another issue is the proper timing of Monetary Reform. Low, one-digit inflation rate processes may be inertial but hardly seem a candidate for Monetary Reform as designed in Arida and Lara-Resende (1984); hyperinflations, on the other hand, may impose some for of monetary reform as the old money fulfils neither of the three traditional functions of money. The proper range of inflations that, being inertial, would call forth Monetary Reforms is a PRF.

Leaving aside the Monetary Reform, there are two issues posed by inertial inflation processes that deserve further investigation. First, there is the problem of the proper measurement of inflation. Inflation is a tax on money holdings. But in high inflation processes agents are able to economize on money holdings either because the economy is dollarized or because Central Bank allows *de facto* indexation on bank deposits. It might be argued that in inertial inflation some form of money indexation takes place as a result of maximizing decision of agents. If this is true, would the straight inflation rates overestimate the relevant inflation rate?

Second, there is the problem of understanding imperfect indexation. Why would agents, and particularly workers, adhere to fixed length 100% plus indexation if the indexation clause fails to provide constancy of the real contract value? In Arida and Lara-Resende (1984), two explanations are offered. First, by sticking to fixed length contracts workers succeed in keeping the relative wage structure constant. The parallel to Keynes' argument on the downward rigidity of nominal wages is evident. Second, the alternative arrangement which assures constancy of contract values is unstable. Trigger-point indexation induces running every specific product controlled by the firm ahead of the general price index based on which wages and raw-material prices are readjusted. As a consequence, inflation tends to accelerate. Research on alternative indexation schemes is a PRF (see Arida,1983). Apart from trigger-point schemes, forward-looking indexation (see Fisher,1984) and futures markets for hedge against unexpected fluctuations in inflation rates (see Friedman,1984) are alternative candidates worth investigating.

100% indexation backward-looking clauses do not prevent adjustment of relative prices. Rigidity of relative prices, the topic of next Section, derives from other causes.

X. Disequilibrium

Macroeconomics of disequilibrium has fallen into disgrace. The criticisms have been widely discussed. The dynamics is unclear; foregone gains from trade violate the maximizing postulate; spill-over rationing effects are arbitrary. It can be defended, however. The clearness of the dynamics of equilibrium models is obtained at the cost of ignoring much of the interesting real world complexities. The arguments on the failure to realize gains from trade can be answered through Hahn's (1977) conjectural equilibrium approach: it takes costly experimentation to perceive potential gains (see also Drazen, 1980). Irrespective of still unsettled theoretical issues, disequilibrium macroeconomics is a PRF for LACs for several reasons.

Key prices in several LACs, such as the exchange rate and minimum wages, are set by government fiat. The fixed-price assumption of disequilibrium macroeconomics is rendered literally true because of government regulation. Moreover, policy discussions in LACs are frequently centred on “getting prices right” to eliminate unemployment and Balance of Payments deficits. But one can only determine how to adjust prices properly based on the understanding of how the economy functions under “wrong” relative prices. This task falls naturally within the scope of disequilibrium macroeconomics. Finally, the frequently despised awkward problems of modelling spill-over effects do not result from needlessly complicating disequilibrium models. They do capture actual policy dilemmas. As examples, consider an oil or an external credit shock. No universal characterization of their effects can be given by disequilibrium macroeconomics because they depend on the initial disequilibrium regime and on cross-restrictions between agents and markets. But this is no defect of disequilibrium theory; the reality of LACs has already exhibited a wide range of responses to these disturbances.

The most interesting disequilibrium models for LDCs are two-sector open economy models. In Solimano (1984, chapter 3), a cut in tariffs increases unemployment in both Classical and Keynesian regimes. (The positive effect under Repressed Inflation is trivial). The case against the liberalization of trade in heavily indebted LACs could be made even stronger in terms of his own analysis by introducing intertemporal debt effects. To the extent to which it alters trade surplus, trade liberalization increases the present value of the burden of debt (assuming away repudiation). The larger debt burden in turn reinforces the tendencies driving the economy towards Keynesian unemployment.

In Esfahani (1983), the common export-first rationing rule in case of excess demand for goods is shown to be destabilizing if the foreign exchange constraint is not binding. Adjustment is analysed under an endogenous rationing rule: maximize domestic absorption. The frequently altered priorities given to exports in LACs may be rationalized not as testifying to political pressures but as responses

to different disequilibrium regimes.

In Arida and Bacha (1984), the tools of disequilibrium macroeconomics illuminate the long standing debate on stabilization policies between IMF medicine and the structural approach launched by Economic Commission for Latin America (ECLA). It is shown that observation of unemployment and diminishing reserves is not sufficient to determine the truth of competing stabilization policies. Central to the debate is the State of the market for goods. It is shown that IMF prescriptions are appropriate when the goods market is in excess demand. In this case, lower real wages and domestic absorption lead to external equilibrium and more employment; the Classical deficit obtains. In contrast, the Structural deficit occurs when goods market is in excess supply. In this opposite case, a wage squeeze only worsens the income distribution; a domestic demand contraction can only reach external equilibrium at the cost of increased employment.

In Arida and Bacha (1984), the scope for a satisfactory application of IMF doctrine turns out to be much more limited than claimed by the orthodoxy. Similarly, the ECLA doctrine needs to be rectified. The structuralist viewpoint correctly apprehends the nature of disequilibria when the goods market is in excess supply. But the economy can present unemployment, external deficit and excess supply of goods – apparently confirming the ECLA diagnosis – and yet, a Walrasian equilibrium may exist. If this is the case indeed, exchange rate devaluations are recommended. The conditions for truly structural deficits that emerge from Arida and Bacha (1984) model are shown to be claimed by the ECLA doctrine.

XI. Two Further Remarks

Among the important issues left out in this concise paper, two deserve explicit recognition. The first pertains to the role of the State. Pareto inefficiencies deriving from incomplete markets are usually invoked to justify a role for fiscal policy. For LACs this interventionist argument seems compelling: markets are incomplete not only in the Arrow-Debreu sense, but in comparison to developed countries as well. However, incompleteness or market failures are only a necessary condition for justifying expansionist fiscal policy or State investment. There is no a priori guarantee that the State will be able to detect market failures properly; or that State policy actions will in fact be appropriate for the supposed objective. Fine tuning policies for the real side of the economy may be open to serious objections. A PRF is open up by the balancing out market failures against State failures.

Another dimension of the State is given by the effort at developing markets. The tutelary role of the State in connection with the market creation and institutionalization forms a PRF. Although important for the orderly functioning of capitalism, and therefore applying to all markets, the tutelary

role of the State is particularly crucial and visible in connection with financial markets. Barbone (1984b) addresses financial deepening through the particular export subsidy discussed in Section IV above. LACs experience suggests the importance of investigating government guarantees that absorb (at least partly) market risk. The derived social cost is to be set against the benefits of market creation. The usual argument justifies risk absorption on the grounds that it is a temporary cost needed to get the market started. Yet the evidence points out that markets created under the protection of the State tend to grow increasingly dependent on risk guarantees. The “infant” financial market argument for protection may offer little analogy to this counterpart in trade theory.

The second important issue left aside in this paper is foreign investment. Apart from profit remittances, policy discussions usually emphasize the fact that investment decisions by multinationals derive from considerations exogenous to the State of the economy. Even taking this point for granted, its implications are unclear. Suppose the investment demand by multinationals is much less sensitive to the current State of the LAC economy than the investment demand by domestic firms. Is it necessarily bad? Less sensitivity to domestic events may be positive. The derivation of the optimal mix between private and foreign investment based on the optimal sensitivity of investment to demand is a PRF. An interesting conjecture is that foreign investment is stabilizing when the world economic cycle and the domestic economic cycle diverge but de-stabilizing when they are to an appreciable extent synchronous.

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