

POLICIES TO MOVE FROM STABILIZATION TO GROWTH

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ABSTRACT

Policies to Move from Stabilization to Growth*

The tradition in stabilization discussion is to assume that fiscal austerity, competitive real exchange rates, sound financial markets and deregulation provide the preconditions for a resumption of growth. There is, however, a need to distinguish the *necessary* and the *sufficient* conditions. Adjustment is strictly necessary, but it may not be sufficient. Asset holders can postpone repatriation of capital flight and investors can delay initiating projects, so that there is an important coordination problem that classical economics does not recognize.

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NON-TECHNICAL SUMMARY

The tradition in stabilization discussion is to assume that fiscal austerity, competitive real exchange rates, sound financial markets and deregulation provide the preconditions for a resumption of growth. There is, however, a need to distinguish the *necessary* and the *sufficient* conditions. Adjustment is strictly necessary, but it may not be sufficient. Asset holders can postpone repatriation of capital flight and investors can delay initiating projects, so that there is an important coordination problem that classical economics does not recognize.

The policy issue then is to understand the following:

- What are the essential steps that assure stabilization?
- What are the key policy measures in the restoration of growth?
- What is the contribution of the external environment?

Specifically, what role can debt relief and stabilization loans play in supporting a programme?

The existing literature falls into two broad categories: One, which would represent, for example, the official view of the IMF, asserts that with the 'right' policies in place, stabilization will rapidly pay off in terms of growth. There are a few cases to suggest that vigorous reconstruction can give way to a period of strong growth – Korea and Turkey at the beginning of the 1980s, Brazil in 1964-67 and Chile in the late 1970s. The other, sceptical, approach cites the experience of Mexico or Bolivia, or even of Chile, to argue that there is no quick step from stabilization to growth: the transition remains difficult to understand and even more difficult to accomplish.

The paper identifies five key elements in the design of a stabilization programme:

- the post-stabilization inflation target
- the extent and manner of fiscal stabilization
- the appropriate monetary policy
- the right level of the exchange rate
- the use of incomes policy.

On the issue of growth policy, the paper argues that beyond the necessity for a competitive real exchange rate, much of the growth must be sought in the area of productivity growth. Capital accumulation plays a role, but deregulation and trade policy play a more significant role. The financial system plays an important role in the growth strategy. Prudent financial restructuring must concentrate on establishing stable and at most moderately positive real interest rates. Moreover, for countries that have undergone significant financial instability, the coordination problem in restoring confidence is a major issue that probably cannot be managed without external support.



The tradition in stabilization discussion is to assume that fiscal austerity, competitive real exchange rates, sound financial markets and deregulation provide the preconditions for a resumption of growth. There is, however, a need to distinguish the necessary and the sufficient conditions. Adjustment is strictly necessary, but it may not be sufficient. Asset holders can postpone repatriation of capital flight and investors can delay initiating projects; that opens up an important coordination problem which classical economics does not recognize.

The paper starts with a statement of the problem, proceeds to review essentials of stabilization and then turns to the question of structural adjustment and the return to growth.

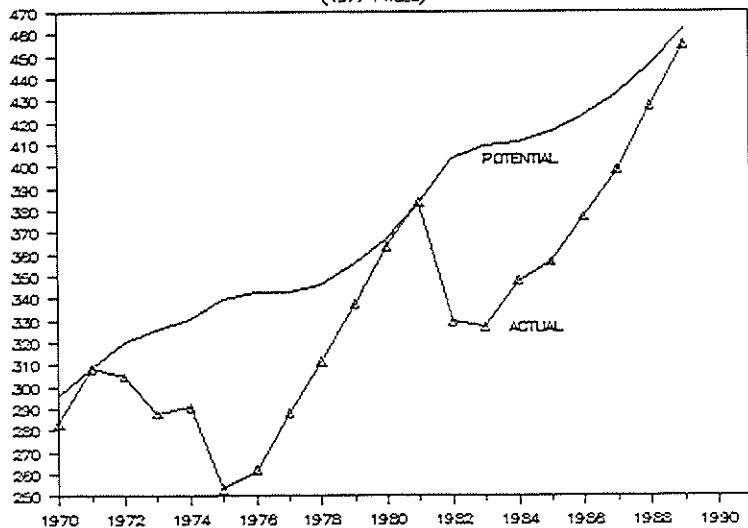
1. THE PROBLEM

Figures 1 and 2 show two very different cases of economic performance. On one side there is Chile: after serious disturbances, domestic and external, a long effort at restructuring has been paying off in the past few years. Output, in 1989, reached the level of potential (as shown in Figure 1) and the scope for growth in the years ahead is substantial.²

¹Paper prepared for the Second World Bank Conference on Development Economics, Washington DC April 26-27, 1990.

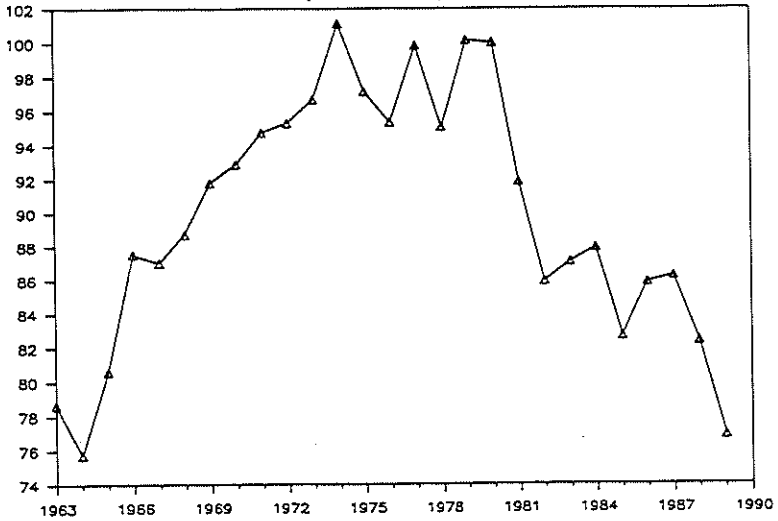
²The data for potential output come from Marfan and Artiagoitia (1989) updated by the author.

CHILE: ACTUAL AND POTENTIAL OUTPUT (1977 Prices)



ARGENTINA: PER CAPITA REAL INCOME

(INDEX 1980=100)



Argentina represents the opposite experience. Output per capita has been declining for almost a decade and is now at the level of the early 1960s as shown in Figure 2. Macroeconomic instability and in particular hyperinflation stand in the way of normality. But even if stabilization were to occur, is there any assurance of a prompt resumption of growth? The example of Mexico or of Bolivia would suggest that this is, in fact not the case.

Thus even if stabilization were to occur in Argentina, in Peru or in Brazil (and ultimately it must), there is little assurance that the onset of austerity will not translate into protracted stagnation. The policy issue then is to understand the following:

- What are the essential steps that assure stabilization?
- What are the key policy measures in the restoration of growth?
- What is the contribution of the external environment?

Specifically, what role can debt relief and stabilization loans play in supporting a program.

The existing literature falls into two broad categories: One, which would represent for example the official view of the IMF asserts that with the "right" policies in place, stabilization will rapidly pay off in terms of growth. There are a few cases to suggest that vigorous reconstruction can give way to a period of strong growth -- Korea and Turkey at the beginning of the 1980s, Brazil in 1964-67 and Chile after 1983. The other, sceptical approach, cites the experience of Mexico or Bolivia, or even of Chile to argue that there is no quick step from

stabilization to growth, that the transition remains difficult to understand and even more difficult to accomplish. We now review these two lines of argument. We start our analysis with a review of prescriptions for stabilization.

II. STABILIZATION

The design of a stabilization effort involves five questions.

- The post-stabilization inflation target
- The extent and manner of fiscal stabilization
- The appropriate monetary policy
- The right level of the exchange rate
- The use of incomes policy.

On each of these questions there is now a significant body of evidence and it is therefore appropriate to draw some lessons.

Inflation Targets: On the issue of what inflation target to aim at, two schools of thought exist. One asserts that nothing short of zero inflationism a viable policy target. The other is more lenient and accepts, if necessary, moderate inflation of 20 or 30 percent.

The intransigents argue that only zero inflation is a stable target, any concession leading to cumulative departure. This view had been argued forcefully by William Fellner (1976) who drew attention to the need for an explicit price path target because of the problem of "self-justifying lack of credibility" in the absence of such a commitment. This

is a strong argument and should be the last word in an economy starting with zero inflation. But what of an economy that has fought its way down to 20 percent inflation, say, and policy makers now contemplate further disinflation. They face a cost-benefit issue if credibility does not produce disinflation in and of itself. If it takes protracted slack in the economy, then going all the way-- spending an extra year or two with slack, can be a very costly way to gain the extra reduction in inflation. But it is equally clear that declaring victory too early, and being too anxious to turn the corner, keeps the inflationary virus fully alive and leaves the economy highly vulnerable to a resumption of high inflation..

On the issue of inflation targets pragmatism must prevail. Central bankers should talk about zero inflation, but they should in fact make their compromises with reality. At the margin there are tradeoffs and "zero inflation at any cost" is not only a socially irresponsible position, it is also bad economics.

Fiscal Policy: Adjustment of the budget is the sine qua non of a stabilization. Protracted fiscal deficits that cannot be financed in the domestic capital market or abroad lead to high inflation and, in time, megainflation or even hyperinflation. The evidence from Latin America and now from Eastern Europe in this regard is quite unambiguous. It is one question to know what kind of deficit a stable country can run without getting into trouble, it is quite another one to set the allowable deficit for a country that wants to restore stability.

Hysteresis effects in this context are more than a fad; they are a live issue because the preceding period of financial instability will have semipermanently deteriorated the scope for noninflationary deficit finance. Specifically the demonetization that is always the consequence of high inflation, whether it be by dollarization, capital flight or flight into fully liquid interest bearing assets reduces for a long time the scope for noninflationary deficit finance.

The size of the budget deficit that can be financed will depend on how far the financial instability has gone. If there was hyperinflation a budget surplus is required, if inflation reached only 50 percent there is room for moderate deficits financed by money creation and debt finance. The size of the deficit will also depend on the inflation target. There is room for a moderate remonetization of the economy, but the scope is drastically limited. Beyond that, planned seigniorage revenues must be consistent with the inflation target. There is a close link between revenues and inflation given by:

$$\pi = (\alpha g - y) / (1 - \beta g) \quad (1)$$

where π is the rate of inflation, g is the budget deficit financed by money creation, y is the trend growth of output and α and β are parameters of the velocity equation.³ The higher the noninflationary level of

³The equation is derived assuming a steady state where inflation is equal to money growth less real growth and a velocity equation that is linear in inflation: $V = \alpha + \beta\pi$. See Dornbusch (1989).

velocity and the higher the response of velocity to inflation the more inflationary is deficit finance. It is therefore appropriate to look at inflation in two ways: One is how to reduce inflation from high levels by restrictive aggregate demand policies and by incomes policy, the other is what fiscal policies to put in place to finance the budget consistent with the inflation target.

Fiscal adjustment should take place on several fronts. The first is the introduction of a productive tax structure. A productive tax structure involves four elements:⁴

- A broad tax base, without exemptions
- A firm attitude toward tax compliance
- Moderate, preferably uniform rates of taxation
- Absence of significant subsidies of any form and establishment of efficient public utility rates.

In Latin America, to take a specific region, tax systems are defective in everyone of these dimensions. Large parts of the economy, for example agriculture in Mexico or Brazil, were exempted until recently from taxation. Tax evasion is pervasive, especially among the privileged. In Argentina, for example, compliance is a joke and government after government condones one of the worst standards in the entire world. There has just now been approved a law that penalizes tax evasion, but the

⁴Not included here is tax amnesty which is often favored as part of fiscal reconstruction. Uchitelle (1990) shows the very limited success of such a measure.

implementation of the law is far from starting. The improvement in fiscal administration in Italy, Spain and Mexico shows that evasion is not an inevitable attribute of a Latin country.

During periods of financial instability public sector pricing becomes a macroeconomic issue. When inflation is too high, public sector prices are slowed down to reduce inflation. The resulting deficit creates financial problems which then are solved by emergency increases in public sector rates. This yo-yo is extremely inefficient. Public sector prices should be efficiently set on the basis of microeconomic considerations. Any income distribution consequences should be resolved through the general tax structure. Public utility rates should be indexed on a regular basis even if that means there is more indexation and hence more inflation vulnerability in the economy. Inflation must be stopped by a permanent balance in the budget, not by a temporary slowdown of public sector prices.

The tax rate structure in Latin America remains highly distorted, with punitive rates for the sectors least able to evade taxation and with an excessive emphasis on regressive selected sales and trade taxes rather than comprehensive expenditure or income taxes. Subsidies continue to be pervasive in the prices of public enterprises, in the credit market, in regions and in sectors. The combination produces a totally unproductive tax structure, a high marginal cost of revenue and hence an almost inevitable bias toward inflationary finance in response to shocks. Reform of the tax system is essential both for economic and social

reasons. Financial stability cannot come about without a far larger revenue at a much lower marginal cost. Fiscal reform has to do with establishing a tax and expenditure structure and a tax base such that the marginal cost of extra revenue declines. That in turn implies that extra taxes, not money creation, become a plausible response to adverse fiscal shocks.

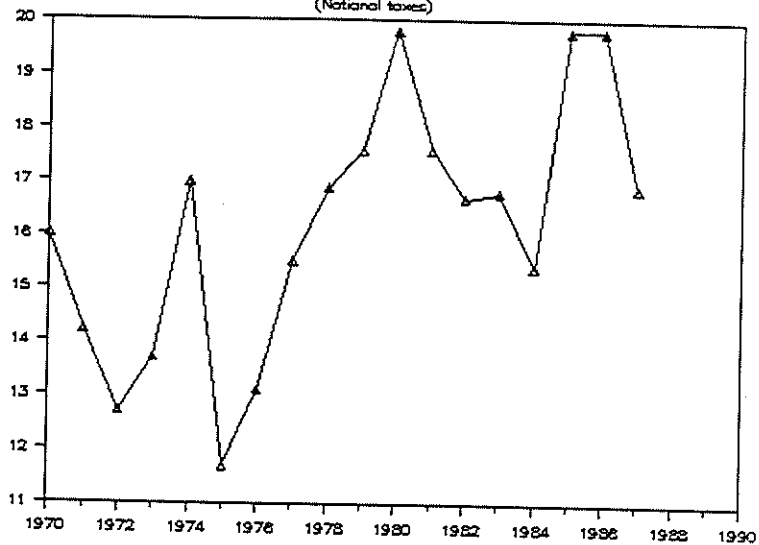
Along with the efficiency of the tax system goes the issue of emergency taxation. Take again the case of Argentina where crises are solved by imposing export taxes and raising public utility prices. Subsequently, as inflation picks up and competitiveness deteriorates, the export tax comes off and the utility rates are allowed to fall behind inflation. Soon the next fiscal crisis occurs and everything starts all over again. The instability of tax pressure is apparent in Figure 3. This process destabilizes public finance, capital, markets and economic efficiency. Only a fiscal reform which provides revenue to finance the government on a steady basis can help overcome these problems.

On the expenditure side a number of reforms are typically necessary:

- efficient administration of public utility rates
- cuts in public sector employment
- privatization and closing of public sector firms.
- restoration maintenance and investment expenditures on social and economic infra structure.

ARGENTINA: TAXES AS PERCENT OF GDP

(National taxes)



Public sectors, like attics, need occasional cleaning out. Employment in the public sector, as a result of patronage and poor accountability gets bloated. Productivity can be raised sharply by reviewing labor requirements. The immediate saving need not be major (although they would in Brazil, for example, where public sector firms pay far above the industry averages), but even so the saving are worthwhile. There is also ample room for privatization. Like fashions, the ideological fads here change and one can benefit from the mood of the day to sell off steel mills, airlines or telephone companies none of which today are considered among the commanding heights of capitalism.

Privatization is useful for three reasons. First, the public sector does not have the managerial capacity to administer a major share of GNP in a cost-effective fashion. Second, the public sector does not have the investment resources required to provide all public services well. Last, revenues are required to avoid deficit finance. Low prices received in the privatization are a serious problem, but these low prices reflect the precariousness of the economy and they may well become even lower if failure to privatize and thus obtain fiscal resources causes financial stability to deteriorate even further.

The available resources should therefore be allocated to those sectors where private initiative is less willing or able to function. Telephone companies need not be in the public sector, rural schools should be. Thus, by privatizing, resources are freed for important jobs and at the same time infrastructure investment and investment in the supply of services is upgraded by private investment in these activities.

Thus privatization should not be an ideological issue; It helps not only to reduce the budget deficit, it also is essential to finance investment. We noted above that the inefficiency on the tax side implies a very large marginal cost of resources and hence leads to shocks translating readily into inflation. On the spending side poor resource management takes the form of cutting into social capital, both physical and political, thus reducing prospective growth and political stability.

Fiscal adjustment, both on the spending and tax side, must achieve a better mix of equity and efficiency. The mix of equity and efficiency has deteriorated in many countries in Latin America very dramatically in the past decade. The real payments to pensioners in Argentina, for example, have declined to only half of that of wage earners. At the same time there are too many people who are on pensions because the retirement age is absurdly low, As a result old pensioners are put into distress while the young ones work in the underground economy. A more sensible system is to push up significantly the retirement age, say to 67, and use the savings to support a more viable payment to old pensioners. The same type of problem emerges in the public sector -- too many people, paid too poorly and too randomly.

The result of this misadjustment is poor performance. The poor performance of the state as a supplier of services in turn leads to the revolt against the state which finds its expression in the legitimacy of tax evasion. The vicious circle must be broken. The solution is not to abolish the state but rather have it function better: more efficiently and more equitably.

Tight Money or Tight Budgets ? The typical stabilization program for an economy emerging from high inflation in the 1980s involves a freeze on wages and prices and little fiscal adjustment. For the first month or two the program is successful, in some measure because the expectation of a freeze will have led to a prior price hikes. Soon the freeze wears off, and the delay in public sector prices and the lifting of export taxes combined with real appreciation erode the budget position. Then, in phase 2, tight money is implemented. Tight money gives an unsustainable program another few months of life. But, of course, it also increases sharply public indebtedness. Next, in phase 3, the problems with the program become widely perceived and debtors plead their distress from high real interest rates. When tight money goes the house of cards collapses; the exchange rate collapses, inflation surges, real interest rates turn very negative. Another stabilization soon starts, ready for the spring, melting in the summer and gone by fall.

The important lesson to draw is this: tight money is not a substitute for a balanced budget. Real interest rates should ultimately be low ($NY + 3\%$) and the only way such a situation is sustainable is by a basically sound fiscal and real exchange rate policy. We return to the financial market issue below. Here we simply note that tight monetary policy -- realized real interest rates of 30 or 40 percent are a signal of a serious misalignment in the budget and/or in the real exchange rate. Realized real interest rates at such levels, in the presence of domestic debt, soon give rise to a fiscal problem.

Exchange Rates: At the outset of a stabilization program quick success on disinflation is critical in gathering the political capital for further progress on more basic adjustments. Fixing the exchange rate can help achieve this objective, more so the higher the initial inflation and hence the more the level of the dollar served as an indicator for economy-wide pricing. In fact, a fixed rate is far preferred to floating. Under floating rates the inevitably tight money will drive up interests sharply and thus draws in capital flows that would lead to sharp real appreciation. Real appreciation would be undesirable because, ultimately, it has to be undone. This is not a negligible issue because, if disinflation succeeds, it will be very inconvenient to have a large devaluation just as the program gathers success. Political resistance to the devaluation in turn forces policy makers into a high interest rate policy to defend a basically overvalued rate. There should be a premium on removing an overhang of unresolved issues, not to create new ones.

The key issue then is to select the initial level of the exchange rate in a manner that, even with moderate inflation for a few months, the real exchange rate is not overvalued ab initio. Moreover, very soon, exchange rate policy ought to shift from a fixed rate to a crawling peg so as to offset inflation differentials and maintain competitiveness. Once again politically, it is extremely inconvenient to shift to a crawling peg (often seen as the source of inflation!) just as inflation comes down. But if the decision is postponed too long the real exchange rate becomes starkly overvalued and the program ultimately fails.

Chile's experience illustrates these problems. Figure 4 shows Chile's real exchange rate in manufacturing. Following the coup and a period of fiscal stabilization, the Chilean currency was placed on a tablita and then the currency was fixed to the dollar in 1978 at a time when inflation was still above 20 percent. The real exchange rate, as a result, appreciated steadily and vastly. Inflation did come down over the next two years, but not fast enough to avoid a dramatic overvaluation. In 1981 net exports reached a deficit of 8.2 percent of GDP against an average of a surplus equal to 0.8 percent in the 1970s. For a while the deficits were financed in the world capital market but by 1982, with confidence and credit withering, the policy collapsed.

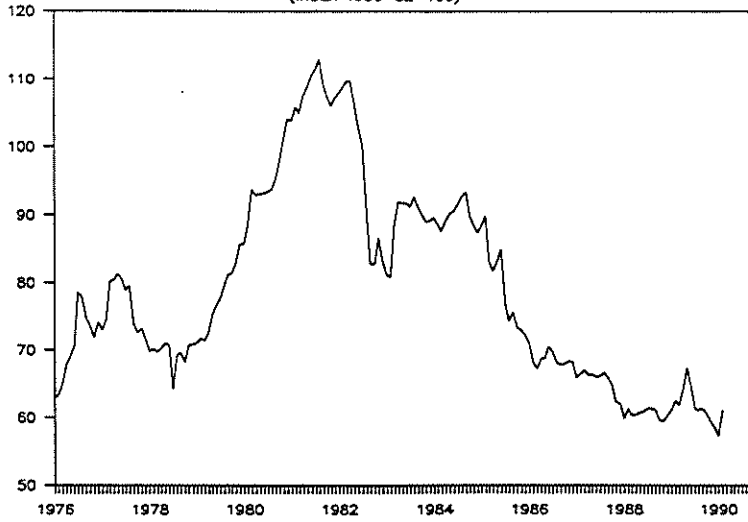
Chile's exchange rate policy in the post-1983 stabilization was far more appropriate. Inflation targeting became more pragmatic and the real exchange rate was pushed steadily into more competitive ranges. As a result, a steadily strengthening traded goods sector could support a sustained growth in the economy. The strength of the traded goods sector in turn translated into moderate real interest rates, thus facilitating external debt management and the domestic budget.

Figure 5 shows the case of Turkey. The initial exchange rate policy, following the 1980-81 problems, supported the strong restructuring and recovery of the economy shown in Table 1.⁵

⁵See Celasun and Rodrik (1989), Sareacoglu (1987) and Dervis and Petri (1987) on the Turkish stabilization.

CHILE: THE REAL EXCHANGE RATE

(INDEX 1980-82=100)



TURKEY: THE REAL EXCHANGE RATE

(INDEX 1980-82=100)

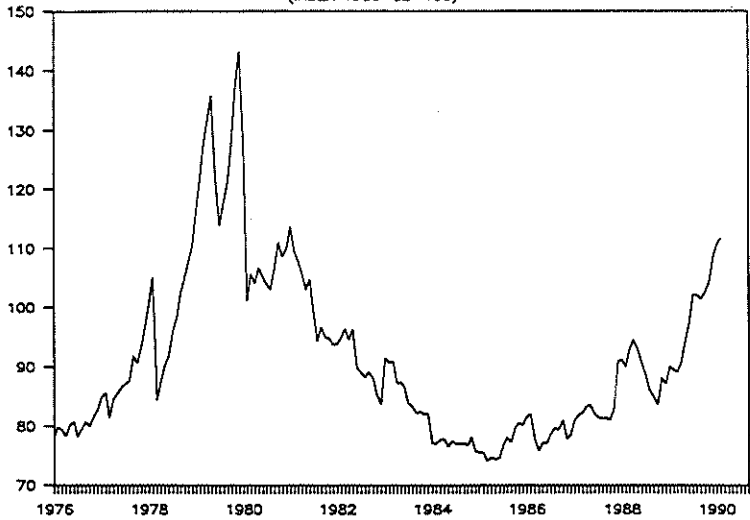


Table 1 Turkey: Restructuring Success
(Average annual growth and shares)

	1973-79	1981-87	GDP Shares	
			1980	1987
GDP	5.1	5.6	100.0	100.0
Exports	-1.1	24.6	7.3	21.3
Imports	1.8	12.0	15.4	22.9
Manufacturing Value Added	4.9	8.4	22.4	26.0

Source: OECD

In the past two years this sound exchange rate policy has given way to a dramatic real appreciation. This may well become a Chile-style problem, all the more so in that EC access is not available and serious competition from Eastern Europe in the European market is a certainty. In fact, the slowdown in growth and the widening current account imbalances are already indicating major problems.

When fiscal austerity reduces demand, full employment growth requires an offsetting mechanism of crowding-in. A competitive real exchange rate does provide such a mechanism. This may not be the case in the short run, as discussed below, but in the medium term it does work.

Incomes Policy: The discussion of exchange rates already introduced the topic of incomes policy. We go here a step further to raise two questions. One, whether exchange rate policy is an important ingredient in stabilization. Two, how it should evolve in the course of stabilization.

Without fiscal austerity stabilization cannot start, without incomes policy it is unlikely to succeed. Incomes policy is necessary as a coordinating device in a situation where wage and price setting is not fully centralized. Because of built-in inflation expectations in contracts adjustments have to be organized. It is also important to intervene in wage and price setting to the extent that it is staggered and that accordingly different contracts are at various points along the adjustment cycle.

All this could, in principle, be accomplished by enough austerity and tightness of aggregate demand. But if substantial inertia prevails, via implicit or explicit indexation, incomes policy can help reduce the unemployment cost of indexation. The extreme of an economy where all wages and prices are both fully flexible and entirely forward looking, and thus capable to fall in line upon the mere announcement of a credible program, is not realistic. Thus incomes policy comes to play its role by shifting all wages and prices to a new regime.

But while temporary incomes policy, including wage-price controls, are useful, their perpetuation is certain to create deep problems. Ample examples exist. Policy makers should thus move quickly to a system of indexation of public sector prices and the exchange rate and of wages. The temptation to postpone the shift to a crawling peg exchange rate is often responsible for an ultimate overvaluation of the exchange rate. Wage indexation on a semiannual or annual basis will create a new inertia around a low inflation rate. Far from being a source of

inflation, wage indexation is mechanism that protects the economy against rapid inflationary escalation provided monetary and fiscal policies are sound.⁶ If they are not sound, nothing can protect against inflation.

Indexation has gotten a bad reputation in Latin America, being blamed for the instability of inflation. There is no merit to the argument since it implicitly assumes that in the absence of indexation real wages would have more easily adapted to the shocks of the 1970s and 1980s. An argument to the contrary is that real wage resistance would have translated into faster and politically more troublesome wage adjustments in response to shocks.

Next we turn to a discussion of the supply side which serves as a background for the review of structural adjustment.

III. THE SUPPLY SIDE

The starting point for discussion is an aggregate production function. The determinants of output are the available labor force (N), the capital stock, K and the state of knowledge and institutions captured by the parameter A.

$$Y = AF(K,N) - AF(K,L) \quad (2)$$

⁶It is understood that real exchange rate changes and changes in real public sector prices must be purged from the indexation formula.

The basic approach to growth relies on a production function in the tradition of Solow-Dennison growth accounting:⁷

$$y = a + (1-\alpha)k + \alpha n \quad (3)$$

where lower case letters represent growth rates and α is the share of labor in income.

Estimates of the sources of growth have been collected by Chenery (1986) and are shown in Table 2.

Table 2 The Sources of Growth in Developing Countries
(Period average growth rates)

	Chenery Sample of 20 Countries ^a	Korea	
		1963-72	1972-82
Value added	6.3	8.2	8.0
Total Factor Input	4.3	4.2	5.6
Capital	2.5	1.1	2.1
Labor	1.8	3.1	3.5
Total Factor Productivity	2.0	4.0	2.4

Source: Chenery et al. (1986 Table 2.2) and Dornbusch and Park (1987)

^aSample of 20 developing countries in various time periods.

The data reflect the significant role of total factor productivity the catchall for the poorly understood mechanics of economic growth.

The growth accounting approach can be expanded in a direction that highlights three aspects of the factor input: the available supply in

⁷We omit here the distinction between GNP and GDP.

the economy, the efficiency with which a given supply is allocated and the level of utilization of the given supply. For simplicity, let X refer to an index on the interval 0 to 1 for the degree of utilization. And let E be an index that measures the extent to which distortions in the allocation of resources impair the efficiency of factor utilization and hence their productivity, again on a range zero to 1 with unity representing the undistorted economy. Moreover, let these efficiency and utilization indices be common to both capital and labor.⁸ Then the growth equation becomes:

$$y = \theta + \alpha n + (1-\alpha)k ; \quad \theta = a + x + e \quad (4)$$

In this form we can separate out five sources of growth in income. In addition to technical progress and increasing capital intensity we now identify as separate contributing factors both the efficiency of resource allocation and the level of utilization. Cyclical recovery, for example, would yield transitory extra growth over and above what factor accumulation adds and so would an improvement in the allocation of resources. The central point of this decomposition is to highlight that capital formation is only one of the avenues to growth. In view of the scarcity of saving available for capital formation increased attention must focus on improving productivity.

⁸Specifically we now have: $Y = AF(EXK, EXN)$ which, with linear homogeneity becomes $Y = AEXF(K, N)$.

Finally, we can move a step further by noting that capital formation relies on domestic saving or a noninterest current account deficit. Rewriting the growth equation we gave:

$$y - \theta + an + r(s+\lambda) \quad ; \quad \theta - a + x + e \quad (5)$$

where s and λ are the national saving rate and the noninterest current account deficit expressed as a fraction of GDP.⁹

Equation (4) highlights the role of domestic saving, s . Higher saving rates finance capital accumulation and growth. But the equation makes the important point that the immediate impact of saving on growth is minor. Assume the return to capital is 10 percent. Raising the saving rate by 5 percentage points of GDP will then raise the growth rate of output by only half a percentage point. Of course, the compound growth effects of an extra half percent growth are considerable in the long run.

Recent literature on growth economics has struggled with the fact that empirically total factor productivity growth accounts for so

⁹The distinction between GNP and GDP arises from net foreign assets. Capital formation, $\Delta K = S + NICA$, has as a counterpart national saving and noninterest current account deficits (NICA). The growth equation for GNP (2) can then be written as:

$$z = (1-\kappa)(a + x + e + an) + rs + \kappa(r-r^*)\lambda$$

where κ is the ratio of net foreign liabilities to GNP ratio, λ is the noninterest current account deficit and s the national saving rate. The rate of interest on net foreign liabilities is r^* and the marginal return on home capital formation is r .

much of growth and is so poorly explained.¹⁰ One important direction for further sources of growth is in the scale of the market and related externalities¹¹

The growth accounting framework leads to a number of policy oriented questions:

- Is there a link between economic policies and total factor productivity growth?
- Is there a link between policies and the national saving rate?
- What kind of policies will assure the full utilization of resources?
- What kind of policies assure that national saving is invested at home rather than abroad and that foreign savings will become available.

These questions are naturally familiar from the discussion of structural adjustment and stabilization. They revolve around the issue that a country must use the limited availability of resources most effectively -- sound regulatory and trade policies being at issue here. They also deal with the need to mobilize effectively domestic savings and to create an environment in which they will be invested at home. that has to do with a stable, productive financial framework for economic development.

¹⁰See Romer (1989a) and Helpman (1988).

¹¹See Romer (1989b), Murphy, Vishny and Shleifer (1989a,b), and Prescott et al (1989).

IV. STRUCTURAL ADJUSTMENT

Two areas of structural reform will be singled out here for special attention, deregulation including trade reform and the financial sector. Both areas are focal points of adjustment efforts and structural adjustment in both fields can play a central role in the longer run success of a a stabilization effort.

Deregulation and Trade Reform: Growth accounting consistently shows that most of growth in per capita income is not explained by capital accumulation but rather by growth in total factor productivity. It is appropriate therefore to ask whether a country can identify policies that would directly lead to a more efficient use of resources. Deregulation and trade reform can play that role.

The effect of an improved resource allocation, by trade liberalization or by deregulation can be represented as a gain in productivity.¹² Suppose the production function for output is linear homogeneous in capital, labor and intermediate inputs, H.

$$Q = F(K, N, H) \quad (6)$$

Value added function, Y, can then be written as:

¹²See, for example, Easterly (1989) and Baldwin (1989).

$$Y = \theta(p)G(K,N) \quad (7)$$

where p measures the real price of intermediate goods. A decline in the real price of intermediate goods because of competition or reduced costs of trans-border shipment therefore operates in the way of technical progress by shifting out the aggregate production function.

Another way in which a more open competitive market or improved trade opportunities translates into productivity gains can be represented in a model that places importance the variety of intermediate products available to firms. In the formulation of Romer (1989a) emphasis is placed on the size of the market in sustaining the profitable production of specialized intermediate goods. Because of the presence of fixed costs, the larger the market the larger the range of specialization that can take place. Let the production function for final goods be

$$Y = N^{1-\alpha} \sum x^\alpha \quad (8)$$

where x denotes the quantity of an intermediate good.¹³ Let there be M intermediates and assume that it takes 1 unit of labor to produce a unit of the intermediate. The labor requirement for intermediates then is $N_I = Mx$ and that leaves $N_F = N - N_I$ of labor for final goods production. We can therefore rewrite the aggregate production function for final goods as:

¹³For simplicity we assume that the quantity of each intermediate good used is the same so that $x_i = x$. This symmetry result would emerge if the production of each intermediate had the same constant unit labor cost.

$$Y = (N - N_I)^{1-\alpha} L_I^\alpha M^\alpha \quad (9)$$

The point of the Romer formulation is to highlight that in addition to labor input variety (proxied by M , the number of different inputs) is a determinant of the level of output. A larger and more open market increases the aggregate output not because of scale economies to labor, but because it allows the production of a larger variety of specialized inputs.

But gains also result from the more traditional scale economies that result from declining average variable cost due to wider markets. Raising the scale of operation of individual firms now is the source of gain in productivity. Worldwide operation for firms with scale economies raises their productivity and frees resources as firms merge into more efficient scale. de Melo and Robinson (1990) emphasize the correlation between growth rates and the growth of total factor productivity and interpret one of the channels to be that export-led growth provides the resources base for imports of capital goods. Pecuniary externalities become available in export-led development which accelerate growth over and above what the classical growth model allows.

Opening of markets that are closed by licences or government monopolies or restrictions thus provides an important source of potential for opening productivity growth sources.

In fact, aggressive deregulation may well be one way to achieve a Schumpeterian change: (Schumpeter (1934, p.64-66):

"Development in our sense is a distinct phenomenon. It is spontaneous and discontinuous change in the channels of the flow, disturbance of equilibrium, which forever alters and displaces the equilibrium state previously existing.... Development in our sense then is defined by the carrying out of new combinations"

In Schumpeter's analysis it involves, specifically, the following origins:

- The introduction of a new good
- The introduction of a new method of production
- The opening of a new market
- The conquest of a new source of supply of raw materials or half-manufactured goods
- The carrying out of the new organization of any industry.

Deregulation and trade reform may be effectively the instruments that take an economy out of the trap of slow-growth with instability toward an acceleration of growth which then develops its own dynamics and financing.

Even though the search for productivity growth is essential and obvious, caution is required when trade reform is at stake. The elimination of obstacles to trade --the move from a system of quotas and licences that effectively close the economy as in Chile or Mexico-- invariably spills over into a large increase in imports. The beneficial effects on exports are much slower because. Inputs become more readily available and technology improves, but exports do not rise immediately even if a real depreciation is undertaken. Without real depreciation exports will scarcely help pay for the higher imports. If real

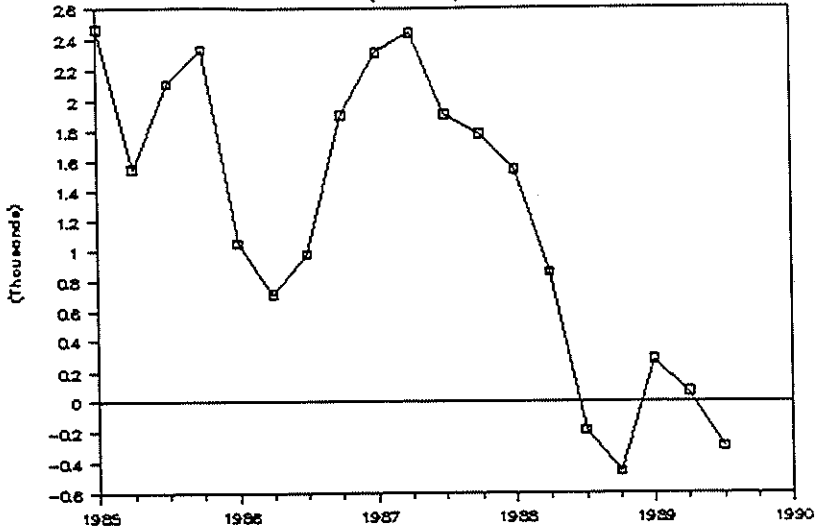
depreciation is not possible then liberalization should occur in two steps. In a first round the country should move from quotas and licences to a uniform, high tariff of say 50 percent. Later, when the economy booms and the external balance can support liberalization without the risk of an exchange crisis, tariffs can be taken down to 10 percent.

Such a policy does change radically the openness of the economy because tariffs allow competition at the margin while quotas and licenses are there to prevent it. But at the same time it avoids the grave risk of an exchange crisis. When Chile liberalized imports almost fully in the late 1970s (and overvalued the currency) import levels exploded and could not be financed. The exchange rate collapsed and another stabilization had to be undertaken. Similarly in Mexico, when the country moved from a very closed economy almost immediately to a tariff of only 10-15 percent. Import levels increased very sharply, the trade surplus disappeared (see Figure 6), and the exchange rate thus became overvalued. Incomes policy packages and a concern for inflation make it now impossible to devalue. As a result, very high real interest rates are being used to defend the premature liberalization. The policy is clearly unsustainable; if devaluation is ruled out (wisely, at this stage) an increase in the tariff is probably the wisest choice.

Financial Reform: Fiscal mismanagement and the resulting financing of deficits by persistently large negative real returns on assets ultimately cannot fail but divert savings abroad and reduce investment. Once again,

MEXICO: TRADE BALANCE

(Billion \$US)



Argentina serves as an example. Figure 7 shows the cumulative real value of an investment in Argentina's financial market at the active and passive rates. Starting in 1983, by 1989 the real value of an investment would have declined to only 5 percent, and even less by 1990. A country that runs a financial system with dramatic negative rates of return, on average, cannot expect to retain saving or investment. The variability of real rates adds to the loss because it forces everybody to become a speculator in a negative sum game.

The policy package of international institutions rightly emphasizes the inevitable need for budget balancing and for competitive real exchange rates. But it also gives strong emphasis to the need for positive real interest rates and, more generally, to the need to abolish financial repression.¹⁴ The evidence in support of the policy recommendation is less decisive than that in support of competitiveness and a balanced budget.

Two arguments are brought ordinarily for the positive real interest rate recommendation:

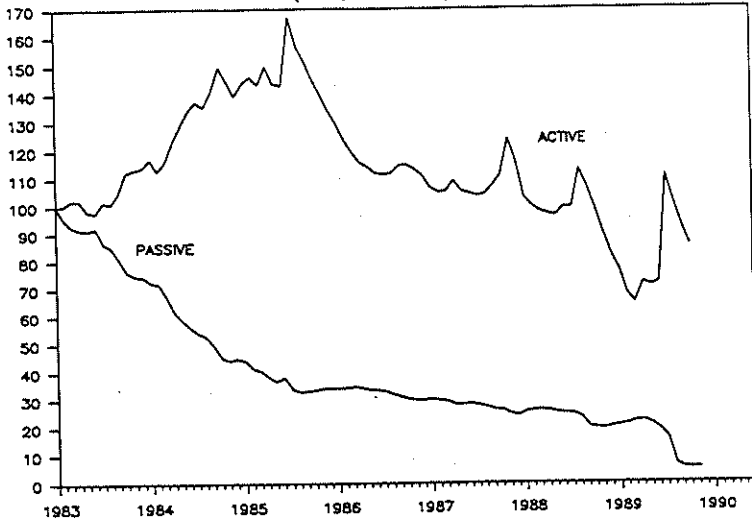
- Positive deposit rates mobilize saving: specifically, with positive rates there are higher saving rates and saving will be efficiently channelled by financial intermediaries rather than going into goods or dollars.

- Positive real active rates assure a higher quality of investment and therefore higher growth rates of output.

¹⁴See Polak (1989), the World Development Report 1989, McKinnon (1988), Gelb (1989) and Molho (1986).

REAL VALUE OF AN INVESTMENT

(INDEX, 1983:1=100)



The World Bank has expounded the view that positive real interest rates and financial liberalization can help promoted growth. The World Development Report 1989 reports evidence of a positive relation between real growth and real interest rates. A study by Polak (1989) similarly comes to the conclusion that real interest rates have a positive effect on growth. Table 3 presents their evidence.

Table 3 Real Interest Rate and Growth

WDR (1989)	$y = -0.12 + 0.2 r - 0.02 \cdot \text{DUM}$	$R^2 = 0.45$
	(-2.5) (5.2) (-3.4)	
Polak (1989)	$y = 5.21 + 0.21 r$	$R^2 = 0.32$
	(15.3) (4.5)	

Source: World Bank (1989a) and Polak (1989)

In both cases averages of growth rates for a sample of 33 developing countries was used in a cross section regression. The WDR results further allow for a shift dummy to separate the period 1965-73 from the 1974-85 period. Both studies support the view that a 5 percentage point increase in the real interest rate raises the real growth rate by an entire percentage point. If these results are at all representative, they of course have extraordinary implications for growth policy. An increase in real interest rates by 5 percentage points would raise real growth by 1 percent. The evidence in support of a real interest rate- growth linkage is less strong than the World Bank or Polak would lead us to believe.¹⁵

¹⁵Gelb (1989) on whose research the WDR is based, is in fact far more circumspect than the report itself.

Persistently large persistent negative real deposit rates misdirect saving; similarly, random and priceless allocation of investment has negative consequences for the productivity of resources. Most of the evidence about the harmful consequences of misdirected capital market policy come from the outliers, namely those countries that have vastly negative asset returns. Once these cases are isolated, the evidence no longer supports the claim that positive real interest rates help growth.

Figure 8 and Table 4 support this view. The data shown here are the averages (1970-79 and 1980-86) of per capita growth rates of real income and real deposit rates for 14 Asian countries. Regression analysis using 27 data observations (2 subperiods, 14 countries) yield no significant evidence of an effect of real interest rates.¹⁶

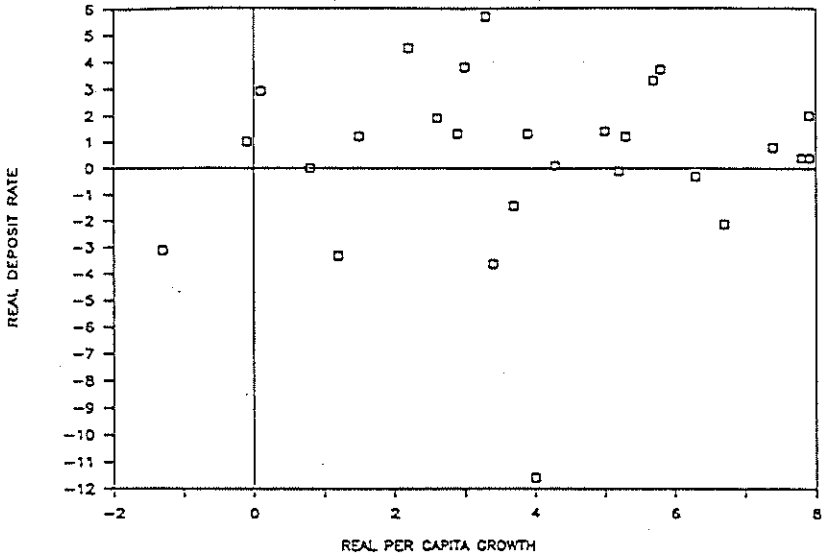
Table 4 Real Interest Rates, Saving, Investment and Growth

1.	S/Y	- 22.7	- 0.23 r	$\bar{R}^2 = -0.033$
		(12.4)	(-0.41)	
2.	I/Y	- 25.4	- 0.21 r	$\bar{R}^2 = -0.031$
		(17.2)	(-0.47)	
3.	y-n	- 3.9	+ 0.05 r	$\bar{R}^2 = -0.03$
		(7.7)	(0.34)	

Note: S/Y is the saving rate, I/Y the investment rate and $\Delta y-n$ the growth rate of per capita income. The variable r denotes the real deposit rate. The t-statistics are reported in parentheses.

¹⁶The regressions use all observations reported in the Okita Report issued by the Asian Development Bank entitled The Asian Development Bank in the 1990s, Manila, 1989. The countries included in the sample are Hong Kong, Korea, Singapore, Taipei, Indonesia, Malaysia, Philippines, Thailand, Bangladesh, China, India, Nepal, Pakistan and Sri Lanka. Fiji, Burma and Papua New Guinea were excluded because of lack of observations for real deposit rates.

REAL RATES AND GROWTH (PERCENT, PERIOD AVERAGE)



In the sample of Asian countries there is no correlation in this sample between saving rates and real interest rates, between investment rates and real interest rates or between per capita growth rates and real interest rates.

With so striking an absence of any real interest rate effects in this particular sample we return to the World Bank data. Figures 9 and 10 show the data for the growth rate and the the real interest rate.¹⁷ These data, as in Figure 8 above, represent period averages. Note that there are several countries with very negative real rates even in these averages.

In looking further at the evidence we want to separate two issues: First, do positive real interest rates have all the positive effects predicted above, or do they only apply to one or the other, growth, investment or saving. Second, are adverse effects due to a regime of negative real rates or to isolated instances of very negative rates?

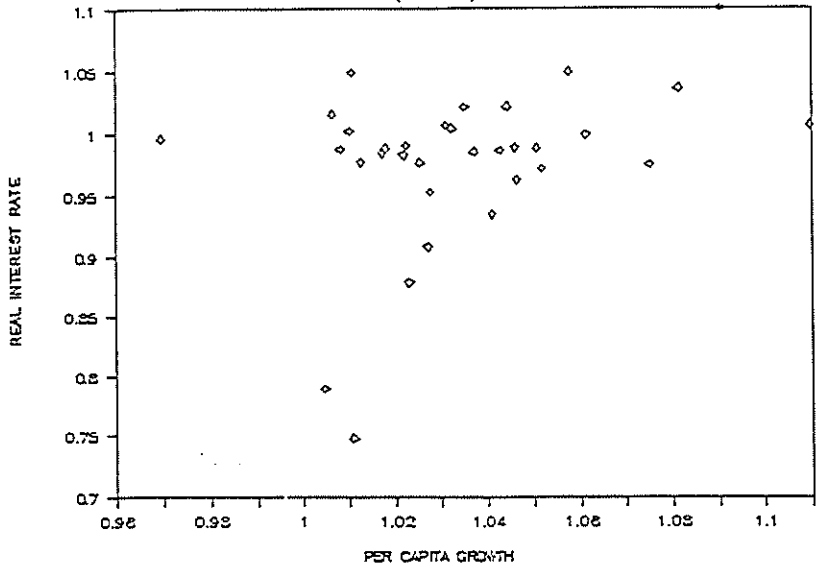
On the first question, the World Bank sample does, indeed confirm a positive effect of real deposit rates on investment and on growth.¹⁸ But interestingly there is no significant effect on saving. A key part of the story is missing and one must therefore ask whether this does not seriously limit any policy implications.

To test the second hypothesis, namely the impact of outliers, we used a dummy variable for those countries who had more than 3 years of

¹⁷The data are shown in the form 1+ the growth rate or real interest rate.
¹⁸The detailed results are not reported here.

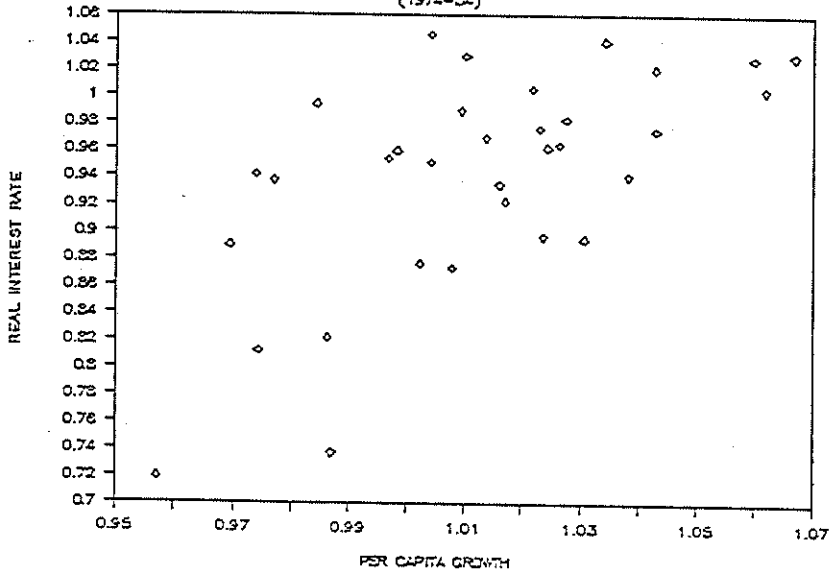
GROWTH AND REAL INTEREST RATES

(1965-73)



GROWTH AND REAL INTEREST RATES

(1974-84)



real interest rates of more than -10 percent. The results are shown in Table 5. DUM1 refers to the cases where there are more than 3 instances of very negative real rates and DUM2 is a dummy for the 1963-75 subperiod.

Table 5 Sporadic Negative Real Rate Effects

		Const.	r	DUM1	DUM2	I/Y	R ²
2.	y-n	0.88 (.44)	0.16 (2.63)	-0.007 (-0.67)	-0.01 (-2.24)		0.36
3.	y-n	0.88 (.44)	0.12 (2.27)	-0.003 (-0.26)	-0.002 (-3.70)	0.16 (3.94)	0.49

Note that the effect of positive real interest rates on growth continues although the dummy for large negative real interest rates is insignificant. Moreover, when the investment rate is added as an explanatory variable in the growth equation, the real interest rate continues to be positive. As Gelb (1989) has noted, the real interest rate must proxy some growth effect different from those identified above. The evidence does not support the view that positive real interest rates promote saving or that they raise investment.

Financial intermediation -- mobilizing saving and financing domestic investment -- makes an important contribution to development. Specifically, it can for a given rate of saving increase the share that is kept in the home country and it can raise the efficiency with which the saving are allocated among alternative investment projects. Curiously, too much financial liberalization may be at cross purposes with precisely these objectives. Insistence on a full range of capital flight products or

on high real interest rates are likely to be destructive of financial stability and productive investment.

V. FROM STABILIZATION TO GROWTH

The neoclassical growth models, or the modern versions that highlight externalities, focus on trend growth. They describe economies where flexibility of relative prices assures full utilization of resources along the path of potential output growth. Policy makers do face these issues, implicitly at least, because the policies they set determine in the long run an economy's incentive structure and hence performance. But the more obvious issue is the short run where lack of any growth, certainly in per capita terms, is the most striking challenge.

Less than full resource utilization and slow growth, or no growth at all, has to do in part with the level of aggregate demand. After expansionary government policies cease driving the economy, there is a great difficulty in shifting to a new regime where growth in the traded goods sector and internal demand, including investment, are engines of growth. The difficulty in restoring growth, quite obvious in Bolivia or Mexico for example, has to do with three sets of issues:

- Budget correction will have reduced real wages and hence internal demand. Without internal demand firms do not invest and if they reduce output this further deteriorates the possibility of an economy to grow. Resources which are freed by fiscal austerity do not find their way automatically into exports or import substitution.

• If the exchange rate is highly competitive then implies that the real wage is very low. Strongly competitive real exchange rates do ultimately support strong export growth-- Chile post-1983 documents this as does Turkey in the early 1980s. But in the short run real depreciation does exert a contractionary effect on demand.¹⁹

• Firms' willingness to invest in export expansion or in domestic import substitution depends on their confidence that the regime will not revert. As discussed in the next section, if there is no front loading of incentives, the option to wait may be the best investment. But front loading of incentives is difficult because it involves yet further redistribution of income.

Stabilization may be inevitable, but it is not a ticket for prosperity. Table 6, showing data for Mexico, documents these problems. The risk of stagnation, following stabilization, is thus very grave.

Table 6 Mexico: Economic Indicators
(Index 1980=100)

	1981	1983	1985	1987
Y	108	102	108	106
YPC	105	94	96	91
Manufacturing:				
Y	106	96	106	105
W	103	75	71	61
E	105	91	92	85

Note: Y-real GDP, YPC-Per capita real GDP, W- Real product wage in manufacturing, E- employment in manufacturing,
Source: Banco de Mexico

¹⁹See Lizondo and Montiel (1989) for a review.

Although the problem is being recognized, official institutions still offer an overly optimistic outlook. Thus the IMF's rendition of stabilization and adjustment portrays an unjustifiably rosy scenario.²⁰ But close inspection of the IMF model reveals that all the crowding-in problems discussed above are solved by assumption: investment is assumed to rise spontaneously in response to structural adjustment, real depreciation drives growth immediately and whenever the economy deviates from full employment the growth rate responds positively to the gap by an unexplained mechanism. Of course, in practice none of these assumptions hold. Unless the export sector becomes rapidly a strong driving force, growth will not come. If domestic demand is the source of growth then external constraints soon become a constraint.²¹

Stabilization often fails, after a while, either because of income distribution issues and recession, or because the financing for supply side policies that raise growth cannot be marshalled. Or they fail because the trimming back of credit growth and the devaluation produce a deep recession and no investment boom, not in the first year and not for many years.

If the private sector does not respond with investment and capacity expansion, and if confidence and inflation fears bar a public sector expansion, then of course the policy maker becomes the proverbial emperor without clothes: he has sharply increased profitability in the

²⁰See Khan and Knight (1985).

²¹See Dornbusch and Edwards (1989).

traded goods sector and the profits are taken out as capital flight; there is neither growth nor equity.

The simplistic response to this problem asserts that policy is simply not credible and therefore, to no one's surprise, it fails to deliver the promise. But the response is either tautological or foolish. There is no presumption that the market solves the coordination problems involved in the return of capital flight or the resumption of investment.

Ultimately growth will return if adjustments price resources competitively by world standards and incentives are present to save and keep savings at home. Stabilization and adjustment have to accomplish this, the rest is a slow building of confidence that will develop the political will to go on and resist the (futile) temptation to change course and reverse policies. But there is some room to dampen the effects of adjustment in the short run and there is critical room to think through the question why the return of capital flows is such a tricky issue. A cushion in the short run can be provided by well designed public works. One form is emergency funds that finance local projects and thus provide a shock absorber to the income effects of real depreciation. If the projects are financed externally, and if they have, as they should, little direct import content, then they can help avoid the decline in internal demand. Such a project is being used very effectively in Bolivia in the form of the Emergency Social Fund.²²

²²see World Bank (1989b).

The other support for a return of confidence and thus growth has to come from the external side. Domestic production and investment has to become sufficiently safe for people to repatriate their assets and risk their wealth in production at home rather than keeping assets abroad. We now turn to this key problem.

VI. THE WAITING OPTION

The return of stability requires external resources to support confidence in the exchange rate and make available resources for growth. There are two sources of external resources, debt reduction or a return of capital flight. We concentrate here on the critical question of incentives for the return of capital flight. For some countries in Latin America external private assets are of extraordinary size, certainly more than sufficient to underwrite stabilization and growth if only they could be mobilized.

Table 7 Estimates of Capital Flight
(Cumulative, Billion \$)

	Argentina	Brazil	Mexico	Peru	Venezuela
1979-82	22.4	5.8	25.3	n.a.	20.7
1983-87	6.8	24.8	35.3	3.3	18.9

Source: Cumby and Levich (1987) and update by the author

A common problem in the aftermath of stabilization is the lack of capital reflow.²³ Moreover, even if capital does return it is placed in

²³This section draws on Dornbusch (1990).

liquid form in financial markets rather than in plant and equipment. Investors have an option to postpone the return of flight capital. They will wait until the front loading of investment returns is sufficient to compensate them for the risk of relinquishing the liquidity option of a wait-and-see position.²⁴ Real investment is slow to resume because of residual uncertainty whether stabilization can in fact be sustained.

Assume that the economy (Mexico) has two states of the world. In the good state the return on an investment is r^g and r^b in a bad state. Investors have the option to invest abroad (in Miami) at r^* or at any time to make an irreversible investment in Mexico. Their evaluation of states follows a Markov process: In a bad state there is a probability q of persistence and $1-q$ of a shift to a favorable state. As a sharp simplification, once a favorable state prevails it is expected to last forever. Investors are assumed risk neutral.

How much of a premium, Φ , over the Miami return is required for an investor to go ahead and invest rather than wait and see, maintaining the option of entering once the favorable state is verified. The required front-end premium is:

$$\Phi = [q/(R^*-q)](r^*-r^b) \quad (9)$$

²⁴The option value of waiting approach has been used in this context by van Wijnbergen (1985) and Tornell (1989). Blejer and Isze (1989) develop an argument similar to that brought here.

where $R^* = 1 + r^*$. This formulation has two key features. First, it confirms Bernanke's Bad News Principle (see Ben Bernanke (1983a)) that the option value of waiting depends only on the bad news, not the good news. The reason is that investors can avail themselves of good news situations by investing even late. Second, if bad states are very persistent the premium approaches equal to the present value of the differential, $(r^* - r^b)/r^*$. Thus persistence translates into a sizable front-end premia required to bring about immediate commitment.

The ideas can be carried a step further if we assume that there is a link between the front-end premium and the extent of capital reflow. Such a relation can exist either because a reflow reduces the probability of a bad state or it raises returns in unfavorable states more attractive. We assume then that $\Phi \rightarrow \Phi(K, \dots)$ with a larger capital inflow reducing the premium, i.e. $\Phi'(K) < 0$.

The return on assets in Mexico, m , is taken to be exogenous to the reflow. The criterion for the excess return in Mexico required to induce repatriation now becomes $m > \Phi(K)$. It can be readily shown that there are two equilibria. In one case, with the return is insufficient to warrant the risk of repatriation, no capital comes. In the other case, because enough capital returns, the risk is low and therefore the required return falls off to nothing. The question then is how to trigger his "good" equilibrium.

How can governments reassure investors? The common answer is to bring about a "credible" stabilization. If real depreciation is not

sufficient to bring about investment the government faces a very awkward position: income is being redistributed from labor to capital, but because the real depreciation is not sufficient, the increased profits are taken out as capital flight. Labor will obviously insist that the policy be reversed. This uncertainty is an important feature in understanding the real exchange rate - capital flight relationships and the post-stabilization difficulties. The option to postpone repatriation and the option to postpone investment in plant and equipment, in export markets or simply in working capital is too valuable and hence growth does not return.

The discussion of the option value of waiting, and the associated credibility issue, highlights one way in which the competitive model fails to address the transition from stabilization to growth. Stabilization by itself is not enough to trigger a virtuous circle. There is a need for a coordination mechanism that overcomes the competitive market tendency to wait.

Political Economy: The point can be taken a step further to bring in political economy considerations. There are economic equilibria and there are political ones. Open economy issues must be modelled with both in mind. An extraordinarily large adjustment in real wages may set the economic incentives right, but it may bring about a political situation which is not comforting for investors. Similarly, the direction and even size of required economic adjustments are understood, but politically these are not possible. What then?

What markets consider a sufficient policy action may simply be beyond the political scope of democratic governments. In fact, if governments went far enough to create the incentives that would motivate a return of capital and the resumption of investment on an exclusive economic calculation, the implied size of real wage cuts might be so extreme that now, on political grounds, asset holders might consider the country too perilous a location. In the aftermath of a major macroeconomic shock competitive markets by themselves may be unable to restore a good equilibrium.

The option value of waiting approach highlights the critical leverage that developing countries can every in underwriting (on a heavily conditioned basis, the more so the more effectively) stabilization loans. With such loans in place, private market participants feel comfortable to repatriate their assets. the repatriation in turn assures that the loans will not effectively be drawn on (just as in the case of a bank run!) and that growth resumes. A minimum step in that direction is the support of industrialized countries for the complete suspension of external debt service, to commercial banks and to official creditors, for a substantial period of time. Work by the League of Nations in the 1920s provided such programs and the same is required today.²⁵

VI. SUMMING UP

²⁵See League of Nations (1926a, 1926b, 1946).

Countries that have experienced protracted high inflation, financial instability and payments crises will not easily find their way back to growth. Their economies need to achieve not only fiscal reconstruction by thorough budget balancing, but also a far reaching institutional reconstruction that involves a financial system able to provide efficient intermediation, and a regulatory and trade regime that helps allocate resources to maximize productivity. When external resources are in short supply, making most of a country's resources by a better allocation of resources is the only way of raising the standard of living. Fortunately, in the aftermath of mismanagement, the scope for such productivity enhancement is substantial.

Economic reconstruction is the work of a decade or more. There is no greater danger than complacency with the initial stabilization and a reversal of sound exchange rate and fiscal policy. Chile's new democratic government seems to be keenly aware of the need to nurture and foster the stabilization in place today, Turkey's government by contrast is allowing a dramatic slipping of the progress achieved in the first part of the 1980s.

Reconstruction is necessary but it is not sufficient. Public external support must ultimately become part of the effort; external support in the form of long term stabilization loans, heavily conditioned on accomplishment and continuing effort, can help build the bridge on which capital flight returns and foreign direct investment is encouraged to actually move in to take advantage of fresh opportunities.

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