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DISTRIBUTIVE AND WELFARE EFFECTS OF INFLATION AND STABILIZATION \1

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Summary:

The objective of this paper is to explore the relation between processes of high and chronic inflation, successful and unsuccessful stabilizations attempts and distributive issues. The latter are discussed in a broad sense, taking into account both the behavior of real wages, poverty and employment as well as the role of the level and structure of tax revenues and of government expenses. The paper provides a brief discussion of the characteristics of high and chronic inflation focusing on four experiences, namely, those of Israel, Brazil, Argentina and Mexico, and explores the distributive and welfare effects of inflation and stabilization plans. It also touches on the notion of distributive conflict in the context of exchange rate based stabilization plans and the relation between distributive issues and the social demand for stabilization.

Distributive and Welfare Effects of Inflation and Stabilization

Edward J. Amadeo

1. Introduction

Orthodox stabilization plans in OECD countries --such as the Reagan and Tatcher stabilizations in the early 1980's-- have had significant negative distributive and welfare effects. Unemployment and real wage reductions due to the Phillips curve trade-off between inflation and the level of activity result from stabilization attempts based on contractionary monetary policies. Although mixed with some incomes policy ingredients, the long process of stabilization in Chile had a strong orthodox flavor and was also associated with significant distributive and welfare consequences.

Heterodox experiments in Brazil, Argentina and Peru during the 1980's, on the other hand, had positive distributive consequences: real wages and employment grew during the initial phases of the plans. These plans failed to stabilize the economies in which they were applied. The conventional view is that they failed because policy makers were negligent in dealing with the "fiscal fundamentals" of the inflationary process. Maybe they failed because they were associated with socially unsustainable distributive shifts.

Recent plans in Israel, Argentina and Mexico seem to combine the best of the previous experiences: they have been successful in bringing down inflation and at the same time had either non-negative or positive consequences on the level of activity and real wages. The extent to which these plans did not have negative distributive and welfare consequences when public finance issues are considered is a matter considered in the present paper.

The objective of this paper is to explore the relation between processes of high and chronic inflation, successful and unsuccessful stabilizations attempts and distributive and welfare issues. The latter are discussed in a broad sense, taking into account both the behavior of real wages, poverty and employment as well as the role of the level and structure of tax revenues and of government expenses.

Unsuccessful stabilization attempts are part of an inflationary crisis. Successful stabilizations plans, in turn, mark the end of such crisis. That is why the analysis of distributive and welfare issues in this paper is separated into two basic contexts: the context of an inflationary process which includes periods of accelerating inflation and unsuccessful stabilization attempts, and the context of successful stabilizations. However, it is not true that the process of stabilization of an economy does not start before the final and successful plan is launched. In particular, fiscal adjustments take time and a few stabilization attempts may fail while the adjustment is in process and completed. Therefore the discussion of distributive issues associated with the stabilization period

cannot overlook the distributive consequences of the inflationary period in which part of the required adjustments might have taken place. The extent to which distributive shifts should be associated with the inflationary crisis or with the stabilization process is a matter of interpretation.

The paper starts with a brief discussion of the broad context in which the analysis takes place, that is, the context of high and chronic inflation focusing on four experiences, namely, those of Israel, Brazil, Argentina and Mexico, with emphasis on the latter two (section 2). Section 3 explores the distributive and welfare effects of inflation. Section 4 looks at stabilization plans. Section 5 discusses the notion of distributive conflict in the context of exchange rate based stabilization plans. The relation between distributive issues and the social demand for stabilization is briefly analyzed in section 6. Section 7 presents a summary of the conclusions.

2. The context for the analysis

The origins and dynamics of high and chronic inflationary processes have been analyzed in detail in the literature [see Bruno (1993a), Kiguel & Liviatan (1990) and Calvo & Végh (1992) for example]. Therefore, new accounts should be dispensable. However, in face of the specific objectives of this paper, a brief reconte, with minor variations, may be of some use.

In the case of the recent Latin American experiences --in Argentina, Brazil, Mexico and Peru for example-- the external debt crisis of the early 1980's had no negligible impact on the macroeconomics of those countries, and can be seen as the original cause of the ensuing inflationary crisis.

It is true that, compared with the actual development of the facts, a textbook response to the external shock would have led to a different, and certainly less tortuous, story. A real devaluation of the domestic currency would have shifted relative prices in favor of tradables thus improving the balance of payments; a reduction in abortion would, at the same time, reduce imports and inflationary pressures; and a more efficient government could have reduced the impact of the external debt on the internal debt where the so-called "transference problem" was relevant. However, textbook stories are hard to produce just because there are social, political and institutional constraints which might prove very hard to overcome. History materializes in such constraints and to disregard them, blaming inefficient, populist or weak governments, is just too naive an account to be taken seriously.

In Argentina and Brazil, for example, devaluations were attempted in the context of the redemocratization of both countries' polities --a context in which unions were recovering their bargaining power and in which some degree of wage rigidity was, to a certain extent, inescapable. To blame unions in such context is to forget the political history of both countries.\[1] The dynamics of the exchange rate and wages, having the formation of prices in between them, was

[1] See Amadeo & Banuri (1991) for an analysis of labor market institutions and their role in the adjustment process in Latin America and Southeast Asia.

obviously at the core of the inflationary and distributive processes in those countries. Struggles over wage indexation rules and the institutional context in which wage bargaining takes place, attempts to introduce concerted incomes policies and to make wage policies more effective are all part of the story behind the ups and downs of the real exchange rate, the real wage and the path of inflation itself.

On the other hand, the link between the external and the domestic debts has had an important influence on the dynamics of the fiscal debt. Changes in the exchange rate and the interest rate have an immediate impact on the government finances reducing considerably the positive effects of the huge effort to produce primary surpluses. Through the connection between the governments' external and domestic accounts, the lack of capital inflows and the increase in international interest rates over the 1980's made the result of the fiscal efforts almost irrelevant.

This is not to say that governments' accounts are independent from political factors. In democratic regimes, and in processes of democratization in particular, the adjustment needed to reduce fiscal deficits require complex political struggles. Social demands over public resources increase during democratization periods and governments with weak political support find it difficult to increase taxes, reduce expenditures and implement changes in priorities. The latter are opposed by conservative forces which supported the government during the military period. The conflict between more universal and social demands, on the one and, and corporatist demands, on the other, makes it very difficult to implement deficit reductions.

The failure to reduce inflation through wage and price freezes sets a new dynamics for the inflationary process with unions and firms trying to anticipate new policy initiatives. Uncertainty and expectations start playing a role of their own. In this new environment the dynamics of inflation and relative prices become relatively independent from so-called "fundamentals". This is when institutions might become important: the degree of centralization and synchronization of wage bargaining, the existence of wage and price setters, the role of business associations and central unions in supporting stabilization plans and the efficacy of government agencies in providing price guidelines and implementing price controls are all important factors in making the stabilization effort work.

When nothing else works, the government is left with the interest rate as the only instrument to prevent price explosions. If, on the one hand, the policy works to prevent capital flights into real assets, on the other, it leads to very significant changes in the size of the domestic debt as well as transfers of wealth from the government to holders of the Treasure debt. In recent periods, high interest rates have attracted capital inflows which increase the stock of reserves and helps preventing speculative attacks but at the same time fuels the increase in the government debt as the Central Bank, in avoiding the monetization of the inflow of capitals, issues Treasure bonds.

3. The distributive effects of inflation

Part of the distributive effects of inflationary process are associated with the reduction in real wages as inflation accelerates.\[2] The degree of indexation of wages to past inflation and the period between adjustments play an important role in explaining the path of wages. It is easy to show that the average real wage over an year (w_t) depends on the peak real wage (w_{-1}^p) the degree of indexation of wages to past inflation (m), the rate of inflation over the year (p_t) and the length of the indexation period (d) [see Ros (1989) and Amadeo (1994)]:

$$w_t = w_{-1}^p \left[\frac{1+mp_{-1}}{1+p_{-1}}\right] \left[\frac{1}{(1+p_t)^d}\right]$$

Given the rate of inflation, the shorter the indexation period and the greater the degree of indexation, the greater the real wage will be. An acceleration of inflation, ceteris paribus, leads to a reduction in the real wage. That is why in economies with accelerating inflation, it is usual to see unions demanding the shortening of the indexation period. In such circumstances, if firms are able to keep their mark-up constant, the result will be the further acceleration of the rate of inflation. Vicious circles involving the rate of inflation, the degree of indexation of wages and the length of the adjustment period are part of the inflationary history of many Latin American countries and Israel over the 1980's.

In studying the experience of various countries, there are two instances in which wage indexation becomes a corner stone of adjustment or stabilization efforts. In countries hit by external shocks wage indexation turns out to make real devaluations difficult. Attempts to devaluate in the context of wage indexation gives rise to the acceleration of inflation. The other instance has to do with the rigidity imposed on the rate of inflation by backward looking indexation in the course of stabilization plans.

The distributive conflict between the exchange rate and the real wage is part of the perennial inflationary story of some Latin American countries. As argued in section 6, "solving" this conflict or alleviating it through trade deficits are at the core of many stories of successful and unsuccessful stabilization experiences.

Except for the case of Israel in which real wages grew almost continuously before and after the successful stabilization plan of 1985, in all

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[2] Cardoso (1992) estimates an equation using data from seven Latin American countries to show that annual "real wages fall by 14% when inflation doubles. She also argues that in many countries the decline in real wages can be associated with the increase in poverty.

other economies with recent stories of high inflation, indexation has never been able to protect wages against creeping inflation. Notwithstanding the natural tendency towards greater indexation and shortening of the adjustment period, real wages in the industrial sector have fallen over the 1980's in Argentina (since 1984), Chile (until 1987), Brazil (since 1986), Mexico (until 1989), and Peru.

Devaluations coupled with recession or restrictive wage policies were instrumental to reduce wages in Argentina (1981-2), Brazil (1981-84, 1990-93), Peru (1983-86) and Chile (1982-87). The political control over unions explains the continual reduction in wages in Brazil (1964-74), Chile (1970's) and Mexico (1980's). Hyperinflation explains the reduction in wages in Argentina in 1989 and 1990.

The trajectory of the minimum wage which serves as a standard for the wages of the less organized workers and is usually determined unilaterally by the government, is even more dramatic. Over the 1980's, the real minimum wage fell 30% in Argentina, 40% in Brazil, 30% until 1987 in Chile, 58% in Mexico and more than 80% in Peru.

Table 1

(1980=100)

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991*
Argentina											
1) Real Average Industrial Wage	89.4	80.1	101.1	129.5	107.2	108.1	99.6	95.7	79.7	76.2	76.6
2) Urban Real Minimum Wage	97.8	97.8	136.9	167.7	117.1	111.1	122.3	95.6	69.9	_	_
Relative Wage (1/2)	91.4	81.9	73.8	77.2	91.5	97.3	81.4	100.1	114.0	_	_
Brazil											
1) Real Average Industrial Wage	96.1	97.7	81.9	80.3	90.6	105.3	112.2	92.2	99.5	89.4	_
2) Urban Real Minimum Wage	98.7	99.2	87.9	81.3	83.9	82.3	64.8	63.3	68.5	50.8	58.9
Relative Wage (1/2)	97.3	98.4	93.1	98.7	107.9	127.9	173.1	145.6	145.2	175.9	_
Chile											
1) Real Average Industrial Wage	108.9	109.1	97.2	97.4	93.5	95.0	94.7	100.9	102.9	104.8	109.7
2) Urban Real Minimum Wage	115.7	117.2	94.2	80.7	76.4	73.6	69.1	73.9	79.8	87.5	95.5
Relative Wage (1/2)	94.1	93.0	103.1	120.6	122.3	129.0	137.0	136.5	128.9	119.7	114.8
Peru											
1) Real Average Industrial Wage	101.8	110.2	93.4	87.2	77.6	97.5	101.3	76.1	41.3	42.7	38.7
2) Urban Real Minimum Wage	85.0	79.6	80.6	62.3	54.4	56.4	59.7	52.0	25.1	23.4	16.8
Relative Wage (1/2)	119.7	138.4	115.8	139.9	142.6	172.8	169.6	146.3	164.5	182.4	230.3

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991*
Mexico											
1) Real Average Industrial Wage	103.5	102.2	80.7	74.8	75.9	71.5	71.3	71.7	75.2	77.9	77.2
2) Urban Real Minimum Wage	101.9	92.7	76.6	72.3	71.1	64.9	61.5	54.2	50.8	45.5	42.5
Relative Wage (1/2)	101.5	110.2	105.3	103.4	106.7	110.1	115.9	132.2	148.0	171.2	181.6

*Preliminary figures.

Source: Reported by Marinakis (1993).

Two questions should be tackled in the context of the relation between the path of real wages and inflation: first, to what extent other factors such as sluggish growth or external shocks, and not inflation itself, should be responsible for the reduction in wages? Second, to what extent the reduction in wages necessarily improves the macroeconomic performance?

It should be clear that it is almost impossible to separate the macroeconomic crisis of the 1980's from the inflationary process in most Latin American countries. The reduction in real wages was a deliberate policy to reduce abortion and increase the profitability of exports, and thus reduce the trade deficit in most Latin American countries in the early 1980's. It was relatively successful in this respect but at the same time, devaluations induced greater indexation of wages, thus fueling inflation and establishing the vicious circle mentioned above.

In the case of stabilization plans, depending on the balance of political power and the degree of consensus over the appropriateness of the policy, it is possible to have wages carrying part of the burden of the adjustment. We do not know of consensual or negotiated wage restraint in Latin America although in the case of the stabilization plan in Israel in 1985 it was an important element. In Latin America, there were situations, under authoritarian governments, in which the wage policy was deliberately used to curb inflation.

In a non negligible number of circumstances, however, the reduction in real wages is no more than an accommodation to the socio-economic crisis. It is neither a response to policy impulses nor does it necessarily lead to any macroeconomic improvements. The reduction in wages might be associated with a distributive shift due to changes in the bargaining power of the agents in the labor and goods markets. Episodes of over-indexation of prices in anticipation to policy actions became common after a series of unsuccessful stabilization attempts in Argentina and Brazil. In an expectational-driven acceleration of inflation of this sort, the reduction in wages obviously does not improve macroeconomic performance. The effect might even be negative to the extent that the wage bill is a major component of aggregate demand and thus have an important effect on the level of activity.

The prolonged inflationary crisis in some Latin American countries is at the root of the almost continual reduction in real wages. Such crisis is characterized by repeated, continued and unsuccessful attempts to adjust to external shocks and reduce inflation, and by episodes of preemptive or expectational inflationary hikes all of which, in an environment of sluggish economies, lead to the erosion of real wages. In sum, reductions in real wages have a strong redistributive dent. They might help adjusting economies to external shocks or may result from sluggish economic conditions. Policy induced under-indexation of wages helps curbing inflation. Finally, reductions in real wages with distributive effects might result from endogenous inflationary spurs and in such cases are either purposeless from the standpoint of macroeconomic performance or have negative effects.

The distributive effects of inflation also depend on the extent to which the poor pay the inflation tax on idle cash balances and the rich benefit from high interest rates on government bonds. Cardoso (1992, p. 5) argues that middle class families usually get their savings wiped out by the inflation tax. This, of course, is only true if savings are not indexed to inflation and if the real interest rate on savings is negative. If interest rates are positive, the inflation tax does not apply to savings. As a matter of fact high interest rates are not an exception in countries with chronic inflation. On the contrary, in order to avoid capital flights into real assets, interest rates are usually kept very high. High interest rates not only have a negative effect on the effort to reduce the domestic deficit but it has an important distributive effect to the extent that the holders of government bonds are banks, large firms and rich families.

High interest rates reduce the demand of durables, establishes a floor for profit margins and inhibits production, thus creating the conditions for a stagflation. For the firms, the higher the short run rate of interest the greater the profit margin required to induce production. On the other hand, as inventories are kept very low, any time demand increases a situation of excess demand develops creating inflationary pressures. Hence, if on the one hand tight monetary policy avoids speculative attacks and hyperinflationary episodes, on the other hand it has stagflationary side effects. While government creditors obviously benefit from high interest rates, wage earners suffer the effects of the tight monetary policy on aggregate demand, employment and real wages.

4. The welfare effects of successful stabilizations.

The main object matter of this section are the successful stabilization programmes in Israel (1985), Argentina (1991--) and Mexico (1988--). However, before turning to the analysis of the welfare effects of these recent successful plans, it is worth making a few general observations based on Table 2.

First of all, it is instructive to note that there are cases of successful stabilizations both in the orthodox and in the incomes policy cells. Specially in cases of chronic inflation, in which the dynamics of prices become relatively independent from "fundamentals", the role of incomes policy ingredients become relevant. Second, it is important to keep in mind that, although the

recent plans in Israel, Mexico and Argentina had important incomes policy elements, substantial fiscal and monetary restrictions preceded and followed the plans. Finally, it is interesting to note that, in comparing broadly defined successful orthodox and incomes policy plans, the former usually had worse distributive and welfare ratings than the latter. The same is true with unsuccessful orthodox and incomes policy attempts to stabilize although the differences here are not really relevant.

Table 2

Stabilization Plans

	Orthodox*	Incomes policy**
Successful	Chile (1973-83) Bolivia (1985)	Brazil (1964-67) Israel (1985-89) Argentina (1991--) Mexico (1988--)
Unsuccessful	Argentina (1976-78), Uruguay (1974-78)	Chile (1979-82) Argentina (1981-82) Uruguay (1981-82) Argentina (1985-6) Brazil (1986, 87, 89, 90)

(*) Plans based on money anchors; (**) Based on nominal anchors of different varieties

The immediate distributive and welfare effects of the recent successful plans in Israel, Argentina and Mexico were far from negative considering the behavior of real wages, unemployment and per capita consumption. In Israel, real wages, GDP and employment on average grew faster in the years following the stabilization plan (1986-91) than in the years characterized by high inflation which preceded the plant (1981-85) (Table 3). The average rate of unemployment was higher in the post-plan period but this is in part at least the result of the massive immigration of Russians. Per capita consumption grew around 20% between the first semester of 1985 and the first semester of 1987. The average annual rate of growth of consumption was 11.8% in 1986-87, 2.1 in 1988-89, 5.3% in 1990 and 7.6% in 1991.

Table 3
Israel: Macroeconomic Indicators

	Real wage (% growth)	Unemployment (%)	GDP (% growth)	Employment (% growth)
1981-85	1.6	5.4	3.4	1.6
1986-91	2.9	7.2	5.2	2.6
1986	9.0	7.1	5.7	1.6
1987	8.0	6.1	7.8	4.5
1988	5.0	6.4	2.5	3.0
1989	-1.0	8.9	2.0	-0.4
1990	-1.0	9.6	6.6	2.1
1991	-2.0	10.6	7.0	4.7

Source: Reported by Bruno (1993a, p. 110)

Table 4
Mexico: macroeconomic indicators

	GDP growth (%)	Investment growth (%)	Real wage index (1978=100)
1983-6	-0.5	-7.7	73
1987	1.7	-0.1	69
1988	1.4	5.8	66
1989	3.1	6.5	70
1990	3.9	13.4	72
1991	3.6	8.5	75

Source: Reported by Bruno (1993a, p. 193)

Table 5
Argentina: macroeconomic indicators

	Total GDP (growth %)	Manufacture output (growth %)	Real wage in manufacture
1985	-6.6	-9.9	-9.3
1986	7.3	11.4	-3.9
1987	2.6	1.8	-8.3
1988	-1.9	-4.9	-1.0
1989	-6.2	-7.1	-8.8
1990	0.1	2.0	-5.1
1991	8.9	11.9	-5.1
1992	8.7	7.3	-0.6

Source: IDB (1993)

In Mexico, the debt crisis and the period of fiscal adjustment were characterized by a reduction in GDP, investments and a 27% reduction in real wages compared with the golden years of 1977-80. Since 1988, with the Pacto de Solidariedad, investment and GDP recovered and, after falling 35% between 1978 and 1988, real wages grew 14% between 1988 and 1991.

In Argentina, after almost a decade of negative rates of growth of total and manufacturing GDP, both grew strongly after the Convertibilidad Plan of 1991. Real wages in manufacture fell continuously since 1985 and did not started to recover until 1992.

Exchange rate based stabilization plans in Israel, Argentina and Mexico have been accompanied by an expansion of the level of activity and real wages. In open economies the real wage depends both on the price of tradables and non-tradables. If, in an extreme case, only the exchange rate is under indexed in relation to inflation, the appreciation of the real exchange rate will imply a reduction in the relative price of imported tradables and an increase in the real income of wage earners. As a result there will be an increase in consumption demand and imports, leading to a deterioration of the trade balance. On the supply side, the reduction in the cost of production due to the fall in the domestic price of imported inputs will also induce an expansion of output thus reinforcing the expansion of aggregate demand. The expansion in the level of activity will lead to an increase in the demand for labor, reducing unemployment and putting pressure on the real wage. In reading the experiences of Israel, Argentina and Mexico, this seems to be a plausible account of the macroeconomic development during exchange rate based

programmes.\[3]

In sum, comparing the behavior of GDP, employment and real wages in the periods immediately preceding and following the beginning of the stabilization effort in all three countries, the conclusion is that stabilization had non-negative or positive effects. The figures for real wages in Argentina are still very modest, but in comparison with previous years, the situation is clearly not worse. It seems therefore that these three experiences did not repeat the negative distributive and welfare performance of the "classical" orthodox stabilizations programmes.

However, the analysis of the distributive effects of stabilization efforts cannot be restricted to the movement of real wages and the level of activity. This is certainly an important side of the story. The other side has to do with public finances, that is, with the tax structure as it affects government receipts and the distribution of the tax burden between more or less progressive forms of taxation, and the structure of government expenses among different programs. As part of the stabilization effort is associated with the capacity to produce fiscal surpluses, the distribution of the burden to increase taxes and reduce expenses has obvious welfare and distributive effects.

In this connection it is worth noting that perhaps the design of a 'social welfare function' to study the distributive and welfare effects of stabilizations should not give equal weights to government expenses accruing to the rich and the poor. In an environment in which the incidence of poverty is high and in which the poor suffer from severe credit constraints, the importance of government expenses in the living standards of the poor is far from negligible. Hence, in such context, uniformly distributed budget cuts, or cuts which reduce the share of social expenditures, will certainly have significant negative welfare and even efficiency consequences.

The increase in the international rate of interest in the early 1980's doubled the size of the external debt of highly indebted Latin American countries. The inflation crisis which ensued tended to deteriorate public finances. The Oliveira-Tanzi effect reduces tax revenues. he internal transfer problem links the size of the domestic fiscal deficit to movements of the exchange rate and the balance of payments with devaluations and trade surpluses having a positive effect on the domestic debt.

Successful stabilizations have been associated with major fiscal restrictions. As seen in Table 6, as a response to the significant increase in the rates of interest on the domestic and external debts after 1981, an enormous effort was made in all countries to reduce the level of the public sector borrowing requirements. Current expenditures suffered major cuts in order to increase the public sector saving which in the cases of Mexico and Chile reached 10% of GNP in certain years. Public investments had to be reduced to diminish borrowing requirements.

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[3] Calvo & Végh (1992) and Kiguel & Liviatan (1990) raise other hypothesis --usually based on the behavior of the interest rate-- for the behavior of the level of activity in the course of exchange rate based stabilization plans.

Table 6

Public Sector (% of GNP)
(Primary and Operational Saving and Public Sector Borrowing Requirements)

	1978	1979	1981	1983	1984	1985	1986	1987	1988	1989
Brazil										
Saving Before Interest on Debt	5.72	4.31	5.65	3.57	4.10	3.59	5.32	5.15	5.10	2.16
Real Interest on Debt	0.67	0.84	1.37	2.95	3.76	3.81	2.42	2.28	3.01	2.68
Saving after Interest	5.05	3.47	4.28	0.62	0.34	-0.22	2.90	2.87	2.09	-0.52
PSBR (operational)	1.91	3.47	2.89	5.07	4.35	5.07	2.43	3.25	3.94	5.86
Argentina										
Saving Before Interest on Debt	10.17	6.88	3.56	0.26	0.63	6.26	6.40	4.35	2.17	_
Real Interest on Debt	2.02	3.12	7.40	5.96	4.96	5.45	3.86	3.62	2.82	_
Saving after Interest	8.15	3.76	-3.84	-5.70	-4.33	0.81	2.54	0.73	-0.65	_
PSBR (operational)	4.72	6.49	13.24	15.15	11.91	6.01	4.74	7.21	2.56	_
Chile										
Saving Before Interest on Debt	10.93	10.79	6.62	3.86	5.27	9.60	_	_	_	_
Nominal Interest on Debt	2.37	1.94	1.51	4.26	4.84	6.04	_	_	_	_
Saving after Interest	8.56	8.85	5.11	-0.46	0.43	3.56	_	_	_	_
PSBR (operational)	-1.44	-4.61	-0.39	3.44	4.51	2.87	_	_	_	_

	1978	1979	1981	1983	1984	1985	1986	1987	1988	1989
Mexico										
Saving Before Interest on Debt	–	–	1.13	9.57	9.79	8.12	6.71	9.66	11.29	10.88
Nominal Interest on Debt	–	–	2.52	3.03	3.59	2.75	1.91	-2.01	8.23	9.15
Saving after Interest	–	–	-1.39	6.54	6.20	5.37	4.86	11.6 7	3.06	1.73
PSBR (operational)	–	–	10.54	-1.20	-1.16	-0.72	-0.17	-7.39	0.71	1.53

Sources: Argentina (Chisari et al, 1993), Brazil (Carneiro & Werneck, 1993), Chile and Mexico (Amadeo, 1993b).

The budget cuts associated with the fiscal effort led to significant reductions in the share of social expenditures in shrinking GNPs. Table 7 shows very clearly that except for Brazil, where the share of per capita social expenditures in GNP and the level of per capita expenditures in education increased between 1979-81 and 1986-88, in all other countries social budget cuts were huge. Figures reported by CEPAL show that the share of social expenditures in GNP fell 14% in Argentina, 25% in Bolivia and more than 30% in Mexico between 1979-81 and 1986-88. Per capita expenditures in education fell 26% in Argentina, 47% in Bolivia, and 27% in Mexico in the same period.

Table 7
(% of GNP, 1979-81 = 100)

	Social Per Capita Expenditures		Education Per Capita Expenditures	
	1982-85	1986-88	1982-85	1986-88
Argentina	85.5	86.3	80.68	73.86
Bolivia	75.5	76.5	73.93	52.39
Brazil	97.2	113.5	96.6	57.93
Costa Rica	83.1	98.3	67.51	84.92
Chile	108.8	95.5	94.69	84.11
Mexico	88.2	69.2	94.59	72.78
Uruguay	97.5	100.5	76.59	88.89
Venezuela	90.6	85.5	90.48	87.99

Source: CEPAL, 1992.

The distributive and welfare effects of such budget cuts cannot be overemphasized. Poor families are the main clients of social services. Rich families rarely benefit from public health and educational services in Latin America. On the other hand, it is an obvious mistake to assume that budget cuts are uniformly distributed across programs and sub-programs. The cuts respond to the political leverages of the relevant clienteles and, again, the capacity of the poor to resist cuts in budgets with direct effects on their welfare is very slim.

If we compare the tax structure in Latin America, Southeast Asia and OECD countries we note that, first, the tax burden in Latin America and Southeast Asia is around one half of the burden in OECD countries and, second, that the share of direct taxes in GNP in Latin America is half the share in Southeast Asia and about 25% of the share in OECD countries (table 8). A "progressive" increase in the tax burden in Latin America would obviously have to come from an increase in the share of direct taxes on income and wealth. Had such a tax reform been introduced together with the stabilization effort, the negative distributive and welfare effects of the fiscal effort would have been considerably smaller. Again, as in the case of the profile of budget cuts, the political economy of tax reforms is very complex.

Table 8

Tax Burden (%, Taxes/GNP - average 1987-89)

	Tax Burden excluding Social Security	Direct Taxes
OECD		
Sweden	42	24
France	25	8
West Germany	24	13
Italy	25	13
United Kingdom	30	14
United States	21	13
Southeast Asia		
Singapore	15	8
Malaysia	17	8
South Korea	16	6
Thailand	15	10
Latin America		
Chile	20	3
Costa Rica	16	3
Uruguay	16	3
Argentina	17	3
Colombia	13	4
Brazil	14	4
Mexico	18	3

Source: CEPAL, 1992.

Budget cuts with significant distributive effects may have an influence on the long run level of overall efficiency of the economy. An argument can be made according to which the decrease in the educational, health and other social budgets reduce the productivity of labor in the long run. Not only the productivity of those workers directly affected by the reduction in social investments but also on the overall level of productivity. To the extent that educated and less educated workers perform complementary tasks in the economy, the reduction in the productivity of the less educated will eventually establish an hindrance on the productivity of the more educated and by extension, on the economy as a whole. Hence, the consequences of cuts on social investments is not only the direct effect on the well-being of those directly affected by the cuts, but also on the whole society. If this argument makes sense, budgetary cuts aiming the reduction in deficits should be compensated by redistributive measures both on the tax structure and on the structure of government expenditures to reduce the impact on equity and long run efficiency.

5. Distributive conflict and exchange rate based stabilizations.

Successful and unsuccessful stabilization plans are usually associated with significant **distributive shifts**. In the case of chronic inflationary processes, in which the formation of prices and wages are relatively independent from fiscal "fundamentals", the coordination of disinflation is very difficult. Repeated unsuccessful attempts to stabilize or the fear on the part of firms or unions of suffering relative price or relative wage losses lead to important price and wage rigidities. Such rigidities translate into "inflationary residuals" during stabilization plans. When coordination difficulties in promoting a "uniform de-indexation" arise, policy makers are tempted to chose one (or more) key prices to "lead the way". The already mentioned Brazilian plan of 1964-67 is known for under indexing wages in order to promote stabilization. The exchange rate has also been used in many circumstances to provide a guideline to the stabilization process. The fact is that the under indexation of one or more major prices in an environment of pervasive indexation certainly helps in promoting stabilizations.

Changes in relative prices affects economic agents in different ways. If only wages are under indexed, real wages fall and wage earners are hurt. If only the exchange rate is under indexed, the real exchange appreciates and exporters are hurt. In "under indexation based stabilizations" the distributive conflict involving relative prices is a decisive element in the success of stabilization attempts.

It is a mistake to think that the only factor behind the failure of the Cruzado plan in Brazil (1986) was the lack of a fiscal adjustment. The increase in real wages fueled by the expansion of the level of activity gradually started to squeeze profit margins in sectors where the price freeze was effective. These were precisely the oligopolist sectors which, before the stabilization plan, did not face significant limits to mark-up costs and which, during the plan, were unable to do so. Hence in the Cruzado plan, the prices of the oligopolistic

sectors (and the exchange rate) were under indexed and, indeed, played the role of the main anchors of the plan. The change in relative prices implied by the dynamics of the Cruzado plan was unacceptable to the large industrial and commercial firms which demanded the relaxation of the price freeze.

The distributive conflict under indexation based stabilization plans can be "suppressed" depending on the bargaining power of the agents involved. In democratic polities, an hegemonic political coalition may legitimize the under indexation of certain prices: exporters might have to carry the burden of the stabilization in exchange rate based stabilizations if that is what the majority of society wants. In authoritarian polities, the government can enforce the under indexation of certain prices: blue collar workers might have to carry the burden.

Distributive conflicts can also be avoided as in the case of exchange rate based stabilization plans where capital inflows play the role of adjustment variables. The distributive shifts in the Southern Cone exchange rate based stabilization attempts in the late 1970's and early 1980's were not sustainable because the trade deficits resulting from the appreciation of the exchange rate were intolerable. Major distributive shifts and trade deficits --specially in Mexico as seen in table 9 are at the core of the success of recent stabilization plans based on exchange rate anchors. Huge capital inflows are required to equilibrate the balance of payments. Capital inflows in Argentina went from an average of less than US$ 2 billions between 1985 and 1990 to US$ 5.8 billions in 1991 and US$ 13 billions in 1992. In Mexico they went from an average of negative US$ 0.2 billion between 1985 and 1989 to US$ 20.4 billions in 1991 and US$ 26 billions in 1992.

Table 9

	1985	1986	1987	1988	1989	1990	1991	1992
Argentina								
GDP (annual Growth, %)	-6.6	7.3	2.6	-1.9	-6.2	0.1	8.9	8.7
Real Effective Exchange Rate	100	112	123	135	154	104	76	65
Trade Balance (US $ Billions)	4.9	2.4	1.0	4.2	5.7	8.6	4.6	-1.6
Capital Account (US $ Billions)	2.5	1.7	2.4	3.6	0.2	0.8	5.8	13
Mexico								
GDP (annual Growth, %)	2.6	-3.8	1.7	1.2	3.5	4.4	3.6	2.6
Real Effective Exchange Rate	100	144	156	130	119	119	108	102
Trade Balance (US $ Billions)	8.5	4.6	8.4	1.7	-0.6	-4.4	-11.1	-20.7
Capital Account (US $ Billions)	-2.1	1.1	-1.0	-1.4	1.3	8.5	20.4	26.0

Source: BID, 1993.

It is probably true that the level of inflationary residuals in the recent exchange rate based plans was smaller than in the earlier Southern Cone plans --because wages and prices were not completely free in the former-- and this obviously helped in strengthening the programme. But it is also true that the possibility of bypassing the distributive conflict between real wages and the real exchange rate through the massive inflow of capitals helps sustaining the plan. In this connection, the long run effects on the competitiveness of the Argentinean and Mexican industries, on the one hand, and the sustainability of capital flows into the two economies, on the other, are obviously two important question marks to keep in mind.

6. Distribution and the demand for stabilization.

The recent literature on the political economy of inflation and stabilization --e.g., Alesina & Drazen (1990)-- emphasize the distributive conflict between different social groups before and after stabilization programmes are launched. Stabilizations are delayed as long as the costs of inflation (associated with the existence of fiscal deficits and "distortionary finance") to each group are perceived as greater than the costs (due to tax increases or budget cuts) associated with the stabilization plan.

Alesina and Drazen argue that there may be an "agreement on the need for a fiscal change but a political stalemate over how the burden of higher taxes or expenditure cuts should be allocated."(p. 1172); and that "when stabilization occurs, it coincides with a political consolidation. Often, one side becomes political dominant. The burden of stabilization is sometimes quite unequal, with the political weaker bearing a larger burden. Often this means the lower classes, with the burden of a successful stabilization being regressive"(p. 1173).

The stalemate to which Alesina & Drazen refer makes sense in relatively "homogeneous societies" in which the level of information and bargaining power of the groups involved in the "war of attrition" are not unevenly distributed. Political representation in OECD countries is warranted to all citizens which makes the distributive conflict more transparent and balanced. In Latin American countries, the access to information and the political leverage of the elites and the medium classes are considerably greater than in OECD countries. Hence the distributive battle involves a relatively smaller segment of the civil society and a disproportionate share of the burden of the adjustment is levied on the unorganized social groups.

Stabilizations are delayed in Latin America because there are conflicts between groups within the elites but that is not the whole story. Stabilizations are delayed because the demand for stabilization is very weak. As seen above, the distribution of the hardship of inflationary and stabilization processes are tilted towards the poor and the less organized who cannot voice their dissatisfaction. The agents who can protect their income and wealth against inflation do not have the incentives to demand stabilization actions or to act to sustain stabilizations attempts. The technologies developed to live with inflation and the capacity of certain groups to protect themselves against adjustment costs therefore give rise to prolonged periods of inflation.

7. Conclusion.

Distributive issues are at the core of inflationary and stabilizations processes. Not only distributive issues associated with the path of real wages and other key relative prices, but also distributive issues associated with the structure of taxes and government expenses. It was shown in previous paragraphs that the "politically weak" tend to lose **before** successful stabilizations programmes begin because (a) backward looking wage indexation protects wages imperfectly, (b) the poor do not have access to indexed financial assets, (c) the less organized do not have the political leverage to make their interests represented in budgetary disputes and (d) high interest rates imply major wealth redistributions from the government to its creditors. In the case of Latin American countries, it has been shown that the politically weak lose with stabilizations because of the major budget cuts in social expenses. Finally, the tax structure in these countries did not change in recent years such as to alleviate and compensate for the burden of the stabilization effort levied on the poor.

The fact that recent stabilizations plans based on exchange rate and other nominal anchors did not lead to real wage repressions or unemployment hides the fact that the period preceding stabilization was associated with major distributive shifts against the poor. Put in other words, it can be argued that the bulk of the adjustment came before the final stabilization strike was put in practice. Perhaps the stabilization effort would fail if such adjustments had not taken place.

Hence to argue that recent exchange rate based stabilizations have been socially harmless is to forget that income and wealth redistributions took place before the final and successful stabilization attempt occurred; and to forget that the welfare consequences of budget cuts are not uniformly distributed between the rich and the poor. Whereas the former do not depend on government services, and when they do depend they have the possibility of switching to private services, the latter depend on them and cannot switch.

This is not to deny the importance of political conflicts over the distribution of income and government resources. Institutional and political factors, the history of the relation between the state and society, and the conflict between the elites and the newly empowered social groups in the wave of recent democratization processes in many Latin American countries make the solution of macroeconomic problems very intricate. To blame the lack of credibility of stabilization plans and the populist attitude of governments is to forget the complexities associated with these factors and therefore cannot account for the economic developments in the region.

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