

*A LatAm policy innovation: defeating chronic high inflation without shock treatment*

Nominal Anchor:	Money Supply Money Based <i>Orthodox—IMF-</i>	Nominal Fx and wage rate Heterodox Fx Based <i>(Heterodox-Brazil, Mex, Arg)</i>	Nominal fx rate (Tablita) Southern Cone Strategy <i>(Neo-conservative-Chile-Chicago)</i>
Inflation	inflation falls slowly due to demand restraint and high unemployment	Incomes policy: wage & price controls falls quickly, y typically not enough (open capital markets help)	Free trade is supposed to hold Prices down, "managed expectations" import competition helps, but what about nontraded goods prices?
Output / Employment	Sharp recession typical "overkill" a problem	Consumption boom Recession 3-5 yrs. later	Import led consumption boom ends with b of p crisis
Real Wages	Sharp initial fall due to devaluation/unemployment	Minimum Wage raised before wage freeze	Wages driven down by pro-competitive labor market reform
Exchange Rate (RER = $ep^*/p$ )	Sharp devaluation to restore competitiveness & stop capital Flight by creating expectations of appreciation—overshooting	Nominal exchange rate freeze often follows a quick devaluation leads appreciation usually.	Pre announced <i>Tablita</i> slows rate of crawl, managing expectations (still works)
Monetary Policy	Reduction in domestic credit credit leads to a recession "austerity"	<u>Expansion of domestic credit</u> to accomodate remonetization and to avoid high interest rates.	Tight domestic credit with financial opening control interest rates.
Fiscal Policy	Fiscal cuts essential to avoiding crowding out private investment.	Budget cuts essential for reducing import demand and inflation pressure but transient <u>Tanzi</u> and <u>Talvi</u> effects boost fiscal revenue.	Fiscal important for adding credibility to new program.
Current Account	Quick improvement due mainly recessionary induced fall in imports.	Deterioration in CA offset somewhat pub spending cuts by budget cuts.	Deteriorates rapidly due to consumption boom despite Low interest rates, housing boom
Capital Account	Quick improvement via CA adjustment.	CA deteriorates, but official/private capital inflows compensate.	Improves rapidly due to very high real interest rates rates cum tablita
Typical failure scenario:	Inflation falls only due to deep recession: political pressures for expansion then cause inflation to rise	Lack of fiscal adjustment undermines credibility and/or a few years later a B of P crisis leads to a big devaluation.	Exch. rate appreciation cum import boom leads to capital flight/devaluation
Most likely to succeed:	in low inflation economies with light manuf. export base and moderate debt	high inflation middle income income countries fairly deep domestic financial markets	Fail because imports do not prevent nontraded goods inflation—RER appreciates leading to B of P crisis
Additional Comments:	When devaluation is expansionary a stronger long term growth may follow favoring poor rural export crop producers	<u>Olivera-Tanzi</u> and <u>Talvi effect</u> lead to "illusion" of fiscal adjustment. Quick fix attractive to countries with high inequality or fragile democracies	Often considered a variant of Fx based stabilization, but in fact was a precursor note difference in role of capita market liberalization and domestic monetary policy.

**Further Reading:** Calvo, Guillermo A., and Carlos A. Végh (1994) "[Inflation stabilization and nominal anchors.](#)" *Contemporary Economic Policy* 12, #2 (1994)35-45. [Ricardo Hausman says the Talvi effect](#) may have disguised Greece's fiscal deficit the Tanzi or [Olivera-Tanzi](#) is in Wikipedia. Calvo, G A. and Carlos Végh. 1999. [Inflation Stabilization and BOP Crises in Developing Countries.](#) In Handbook of Macroeconomics, volume C, ed. John Taylor and Michael Woodford. North Holland.

TABLE 1  
Inflation, Devaluation, and Real Exchange Rate Appreciation in Selected Exchange-Rate-Based Programs

Programs	Period <sup>a</sup>	Quarter before Program		Last Quarter of Program		Real Exchange Rate Appreciation (in percent) <sup>c</sup>
		Devaluation Rate (4Q change) <sup>b</sup>	Inflation Rate (4Q change)	Devaluation Rate (4Q change)	Inflation Rate (4Q change)	
Argentina 1967	1967.2–1970.1	85.6	26.6	0.0	8.5	25.0
Brazil 1964	1964.2–1968.2	188.0	95.4	18.6	20.7	26.6
Uruguay 1968	1968.3–1971.3	183.1	167.2	0.0	23.6	28.6
Argentine tablita	1979.1–1980.4	67.9	167.3	23.1	88.7	46.3
Chilean tablita	1978.1–1982.1	60.5	66.3	0.0	7.6	28.8
Uruguayan tablita <sup>d</sup>	1978.4–1982.3	28.3	41.9	15.1	25.2	48.2
Austral (Argentina)	1985.3–1986.3	1,462.2	1,036.2	33.5	59.4	4.6
Cruzado (Brazil)	1986.2–1986.4	211.0	263.5	42.0	76.7	9.3
Israel 1985 <sup>e</sup>	1985.3–1990.2	434.0	386.1	3.3	16.4	16.7
Mexico 1987 <sup>e</sup>	1988.1–1992.4	139.3	148.4	1.4	13.2	36.6
Convertibility (Arg.) <sup>f</sup>	1991.2–1992.4	106.8	453.0	-0.8	17.8	20.2

<sup>a</sup>Quarters during which the program was in effect. If a program started late in a quarter, the following quarter is taken as the first quarter.

<sup>b</sup>Four-quarter (4Q) change indicates percentage change over same quarter of previous year.

<sup>c</sup>Cumulative real appreciation (i.e., fall in the real exchange rate) during the program. Yearly data was used for Brazil 1964, Uruguay 1968, and Israel 1985.

<sup>d</sup>Last quarter for devaluation and inflation refers to 82.1, before the devaluation rate was increased.

<sup>e</sup>Duration of program has been arbitrarily set to five years.

<sup>f</sup>Program in progress; terminal date determined by data availability.

Sources: Bufman and Leiderman (1993), Di Tella (1983), Kiguel and Liviatan (1989), Machinea and Fanelli (1988), and International Financial Statistics (IMF).

TABLE 2  
Current Account and Real Interest Rates in Selected Stabilization Programs

Programs	Period <sup>a</sup>	Current Account Balance (as percent of GDP)		Real Interest Rates <sup>b</sup> (in percent per year)		
		Three Years before Program (average)	During Program (average)	Four Quarters before Program (average)	First Four Quarters (average)	Last Four Quarters (average)
<i>Exchange Rate-Based</i>						
Argentina 1967	1967-1970	1.4	-0.2	...	...	...
Brazil 1964	1964-1968	-1.2	0.0	...	...	...
Uruguay 1968	1969-1971	1.7	-1.7	...	...	...
Argentine tablita	1979-1981	2.1	-2.5	0.7	...	...
Chilean tablita	1978-1982	-3.1	-8.6	70.9	-2.8	5.9
Uruguayan tablita	1979-1982	-2.8	-4.6	18.2	43.0	46.4
Austral (Argentina) <sup>c</sup>	1986	-2.8	-3.6	20.0	-7.2	24.9
Cruzado (Brazil) <sup>c</sup>	1986	-1.1	-1.7	-4.5	48.0	-7.5
Israel 1985 <sup>d,e</sup>	1986-1990	-2.5	1.1	-2.0	8.5	-9.5
Mexico 1987 <sup>d</sup>	1988-1992	0.7	-3.9	-2.9	21.2	11.0
Convertibility (Arg.) <sup>f</sup>	1991-1992	-0.6	-2.6	38.1	29.2	2.0
					-2.0	4.0
<i>Money-Based</i>						
Chile 1975 <sup>g</sup>	1975-1977	-3.1	-3.1	...	127.2	58.0
Bonex (Argentina)	1990	-3.6	1.7	-7.4	112.7	--
Collor (Brazil) <sup>h</sup>	1990	3.2	2.0	-8.1	-2.4	--
Dominican Rep. 1990 <sup>f,i</sup>	1990-1992	-4.5	-3.8	...	15.1	13.7
Peru 1990 <sup>f</sup>	1990-1992	-4.0	-4.6	-17.3	235.0	48.1

<sup>a</sup>Calendar years during which the program was taken to be in effect for the purposes of current account figures.

<sup>b</sup>Quarterly real lending rates unless otherwise indicated. Periods specified in Tables 1 and 4 apply. Dots indicate data are not available. Dashes indicate data do not apply.

<sup>c</sup>Real interest rates are reported for two-quarter periods, and exclude the initial price shock.

<sup>d</sup>Duration of program has been arbitrarily set to five years.

<sup>e</sup>Real interest rate before the program refers to two quarters before.

<sup>f</sup>Program in progress.

<sup>g</sup>Annual real interest rates.

<sup>h</sup>Monthly averages of overnight interest rates on government securities. Real interest rate after the program refers to first three quarters.

<sup>i</sup>Real interest rates for 1991.3 and 1991.4. Before January 1991, interest rates were subject to controls.

Sources: Balino (1991), Barkai (1990), Bufman and Leiderman (1993), Castro and Ronci (1991), Cukierman (1988), Kiguel and Liviatan (1989), Perez-Campanero and Leone (1991), International Financial Statistics (IMF), and national sources.

**TABLE 3**  
Private Consumption in Selected Stabilization Programs  
(annual rate of growth, in percent)

Programs	Period <sup>a</sup>	Three Years before					
		Program (average)	First Year	Second Year	Third Year	Fourth Year	Fifth Year
<i>Exchange Rate-Based</i>							
Argentina 1967	1967-1970	6.8	2.6	4.0	6.4	4.1	4.4
Brazil 1964 <sup>b</sup>	1964-1968	3.6	3.3	0.7	4.3	9.6	10.2
Uruguay 1968	1969-1971	0.5	8.2	6.4	1.0	-0.2	--
Argentine tablita	1979-1981	-4.2	14.4	5.6	-3.6	-13.3	--
Chilean tablita	1978-1982	1.0	7.5	6.5	6.8	10.1	-12.1
Uruguayan tablita	1979-1982	0.2	9.0	5.0	2.4	-9.7	-9.1
Austral (Argentina)	1986	1.2	7.9	0.7	--	--	--
Cruzado (Brazil)	1986	2.8	6.4	-0.9	--	--	--
Israel 1985 <sup>c</sup> total <sup>d</sup>	1986-1990	0.6	14.8	9.0	4.3	0.0	5.3
durables		-6.2	49.7	13.2	5.8	-12.8	17.1
Mexico 1987 <sup>c</sup>	1988-1992	0.3	1.8	6.3	5.7	5.0	4.9
Convertibility (Arg.) <sup>e,f</sup>	1991-1992	-2.1	6.7	10.8	--	--	--
<i>Money-Based</i>							
Chile 1975	1975-1977	-6.3	-11.4	0.3	16.0	7.5	--
Bonex (Argentina)	1990	-1.2	-1.8	6.7	--	--	--
Collor (Brazil)	1990	-0.5	-2.5	3.9	--	--	--
Dominican Rep. 1990 <sup>f,g</sup>	1990-1992	-0.3	-12.9	7.5	...	--	--
Peru 1990 <sup>f,g</sup>	1990-1992	1.5	-15.3	10.8	-1.1	--	--

<sup>a</sup>Calendar years during which the program was taken to be in effect. Figures reported include data up to one year after the program ended. Dots indicate data are not available. Dashes indicate data do not apply.

<sup>b</sup>Average before the program corresponds to two years before.

<sup>c</sup>Duration of program has been arbitrarily set to five years.

<sup>d</sup>Total (durables and non-durables) private consumption.

<sup>e</sup>Figure for second year corresponds to total (private and public) consumption.

<sup>f</sup>Program in progress.

<sup>g</sup>Figures correspond to quarterly real GDP, and refer to the four-quarter rate of growth in the quarter before the program, two quarters after the program, and then every four quarters.

Sources: Bufman and Leiderman (1993), Favaro and Bension (1993), Kiguel and Liviatan (1989), Lustig (1992), Medeiros (1993), Viana (1990), International Financial Statistics (IMF), World Bank tables, Fundacion Mediterraneo, national sources, and Fund staff estimates.