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Patterns of Monetary Policy in Latin America

THIS STUDY SEEKS to identify the objectives of monetary policy in five Latin American countries. The method employed here is based on the "reaction function" approach first used by Reuber [6] for the case of Canada and by Dewald and Johnson [1] for the United States, but differs from it in that alternative sets of internally consistent monetary policy objectives are defined a priori, namely, before estimates of the authorities' reaction patterns are obtained empirically.

1. THEORETICAL ASPECTS

The quantitative approach to the study of the economic determinants of monetary policy had its beginnings in the early 1960s with the publication of the above-mentioned studies, and ever since additional—and ever more sophisticated—studies of monetary policy have been carried out in the United States and other industrial countries such as Japan (see, for instance, [4, 8]). Past research has aimed at: (1) identifying the economic variables that have had a systematic influence upon the actions of the monetary authority and, by so doing, obtaining more precise information on the revealed objectives of said authority; (2) pointing out the existence of internal contradictions among the stated or sought-after objectives of the central bank, discrepancies between what was said and then done by the

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monetary authority, or changes in the objectives of monetary policy over time; and (3) improving the specification and, therefore, the predictive ability of large-scale macroeconometric models that would otherwise contain an inherent statistical bias, as Goldfeld and Blinder [3] as well as Lombra and Torto [5] have shown.

Studies of this kind have traditionally involved the search for a statistically significant relationship between several general, quantifiable objectives of monetary policy and some economic variables believed to be representative of those objectives. Since central banks and central bankers often mention goals such as the maintenance of price stability and external equilibrium and the achievement of full employment and rapid economic growth, past studies have tended to boil down to an estimation of the effect of changes in, say, the rate of inflation, the level of international reserves, the rate of unemployment, and the growth rate of GNP or industrial output on one or more indicators of monetary policy. This method, however, whereby data are allowed to dictate the conclusions without an explicit testing of behavioral hypotheses, is obviously unappealing from a methodological point of view—and is now dismissed by many researchers, who liken it to conducting a fishing expedition. By emphasizing only statistically significant relationships, the approach tends to pass over the fact that central banks cannot actively or effectively pursue as many objectives as they are pledged to do, and thus central bankers concern themselves in practice only with a narrow and more achievable set of policy objectives.

The need to define probable policy reaction patterns before one begins to estimate potential empirical relationships becomes especially apparent when one attempts to understand the behavior of Latin American central banks. On the one hand, an examination of their annual reports and public statements reveals that these institutions are also formally committed to the four general objectives mentioned above. It is difficult, in fact, to discover any obvious intercountry differences in stated policy objectives. On the other hand, however, since there are Latin American countries with a tradition of price-level and currency stability alongside others with a history of high inflation and frequent devaluations, the absence of explicit differences reflects, above all, an inconsistency between the objectives that are announced in writing and those pursued in practice. To test for the existence of such a dichotomy adds little to our understanding of the reasons for Latin America's macroeconomic heterogeneity and the motivations of its central bankers.

In view of the desirability of deriving testable hypotheses, and in light of empirical realities in Latin America, it seems useful to begin by postulating two fundamental, alternative patterns of central bank behavior identified hereafter as pattern A and pattern B. The former corresponds to a monetary authority whose principal objective is the maintenance of price and currency stability, whereas the latter is typical of a central bank that pursues objectives (defined below) that have, as consequences, a certain (but varying) rate of inflation and a given (but adjustable) pace of devaluations.

Take first the case of a pattern A monetary authority. Once the authority has fixed the exchange rate and is determined to defend it, monetary policy will have to be

geared to prevent external disequilibria. For example, if the international reserves of the central bank begin to decrease, a restrictive policy will have to be adopted in an effort to induce a fall in aggregate demand and a rise in interest rates. If inflationary pressures accelerate, threatening to surpass those in trading-partner countries, the central bank will be expected to adopt contractionary measures to prevent the loss of export markets and an increase in import demand. Finally, assume that the country's real income begins to grow faster than previously. This will have two contradictory implications for the monetary authority, as the demand for both imports and money will now grow more rapidly. The first effect calls for a restrictive policy, and the second calls for a measured expansion of monetary aggregates. One way to resolve the puzzle is for the central bank to take account of the relevant lags. If the demand for money is a function of a long-run, permanent measure of income, and import demand is a function of a short-run, current measure of income, then the policy dilemma does have a solution. Faced with an unusually high rate of income growth in a given time period, the central bank will take restrictive action in defense of the balance of payments. On the other hand, a sustained increase in the growth rate of output will likely motivate a more expansionary policy aimed at meeting the growing demand for cash balances.

However, it is difficult to tell, a priori, which of these various indicators will actually be followed by a pattern A central bank. In a country where international reserves fluctuate a great deal because export earnings are very seasonal, changes in reserves may be discounted by the central bank because they are not a faithful indicator of true external imbalance. Similarly, the relevance of changes in the rate of domestic inflation depends on whether the central bank believes that they accurately warn of impending changes in comparative cost advantage. Finally, the usefulness of income growth as a leading indicator depends on the extent to which the dual effects of changes in the rate of income growth are separable as well as on the stability of the relevant lags.

In summary, for a pattern A monetary authority we can expect a reaction function of the following type:

$$X_t = a_0 + a_1 R_{t-n} + a_2 I_{t-n} + a_3 \dot{Y}_{t-n} + u_1, \tag{1}$$

where X is an indicator of monetary policy such that an increase in X is a sign of monetary expansion and a decrease is a restriction; R is an indicator of international reserves; I is an indicator of inflationary pressure; $\dot{Y}$ measures real income growth; and u_1 is the statistical residual. According to the above discussion, one would expect $a_1 \geq 0$ and $a_2 \leq 0$. With regard to the coefficient for $\dot{Y}_{t-n}$, one would anticipate $a_3 < 0$ when the central bank believes that the effect on import demand is dominant; $a_3 > 0$ when the demand-for-money effect is dominant; and $a_3 = 0$ when, due to uncertainty, the central bank does not react to changes in Y. To have a testable hypothesis, obviously, either a_1 or a_2 or a_3 will have to be statistically different from zero.

We turn now to a pattern B monetary authority, which is characterized by the fact that, as it pursues its objectives, it contributes to inflation and the need for periodic exchange-rate adjustments. This is the case, for example, of a monetary authority that must regularly finance the government's fiscal deficit. It may also be that of a central bank committed to the maintenance of a certain level of real liquidity in the economy even if it means validating exogenous or past price-level increases. Finally, it can be the case of a central bank that utilizes monetary policy to try to determine the rate of unemployment. Clearly, in none of these three cases will the balance of payments be a constraint on central bank action unless, of course, minimizing the frequency or size of parity adjustments is also an objective of the monetary authority.

The expected relationship between key macroeconomic indicators and monetary policy depends on which of the three objectives is the principal one. Indeed, when the main objective is to passively supplement the government's revenue needs through the printing press, one can expect a positive relationship between the rate of inflation and the rate of monetary growth. Perhaps a numerical example will best illustrate the point. Suppose that when the price level is 100, government spending is 1,000 currency units, fiscal revenues are 800 units, and the central-bank financed deficit is 200 units. Say that, at the end of the second year, the price level has doubled and so have spending (2,000), revenues (1,600), and the deficit (400). Assume that, by the end of the third year, the price level has moved from 200 to 300, government spending is 3,000, revenues are 2,400, and the 20 percent deficit is covered through borrowing in the amount of 600 units. In other words, under admittedly simple assumptions, for a 100 percent rate of inflation a given deficit requires a 100 percent increase in credit to the public sector, whereas for 50 percent inflation the necessary credit increase is 50 percent. Although the implicit unitary coefficient will likely not be observed because of the special assumptions that would be required to hold, it is nevertheless true that, unless there is a concomitant reduction of credit to the private sector, more rapid inflation in period t will necessitate, by increasing the nominal quantities involved, a greater expansion of credit in period $t+1$.

Whenever the principal objective of the central bank is to maintain approximately constant, at every moment of time, the level of real liquidity in the economy defined, say, as the proportion of money to nominal income, one can expect a positive relationship between money supply and prices as well as between money and real income; or, in more dynamic terms, a positive association between monetary growth and both inflation and the rate of output growth. This is so because an increase in real income will positively affect the demand for real cash balances that will result, unless countered by a policy of easier money, in a decrease in real liquidity. Similarly, past or exogenously given price-level changes will lead to corresponding adjustments in the money supply, as the monetary authority seeks passively to adjust the stock of money to the nominal value of transactions ("the needs of trade").

Finally, when the foremost objective of the central bank is the attainment of a lower rate of unemployment than that which results from the interaction of market forces, it is possible to expect, of course, a positive relationship between unemployment and the availability of money.

In summary, for a pattern B monetary authority one can anticipate a reaction function of the following type:

$$X_t = b_0 + b_1 I_{t-n} + b_2 \dot{Y}_{t-} + b_3 U_{t-n} + u_2, \tag{2}$$

where X, I, and $\dot{Y}$ have the same meaning as before and U is the rate of unemployment. Depending on its main objective, a type B central bank can be expected to react as follows: (a) when it is required to finance the government's budgetary gap, $b_1 > 0$, $b_2 = 0$, and $b_3 = 0$; (b) when it attempts to maintain real liquidity, $b_1 > 0$, $b_2 > 0$, and $b_3 = 0$; and (c) when it seeks to manipulate the rate of unemployment, $b_1 = 0$, $b_2 = 0$, and $b_3 > 0$.

2. EMPIRICAL ASPECTS

For estimation purposes, the rate of growth of domestic credit provided by the consolidated banking system was chosen as the relevant indicator of monetary policy. The reasons are first, the available evidence suggests that in Latin America the volume of credit is indeed controlled by the central bank, in the sense that changes in base money or bank reserves do affect bank deposits throughout the banking system in about one to three months (see [2, 7])—implying that quarterly variations in credit can be taken to reflect the result of monetary policy; second, the alternative measures of money explicitly incorporate the volume of international reserves, and this would be misleading since in the short run most central bankers treat such reserves as exogenous; and, third, it is apparent that in most Latin American countries the instrument that equilibrates demand and supply of credit is rationing and not the rate of interest. This last observation means that (1) it is better to analyze changes in the quantity rather than the price of credit, and (2) it is likely that an identification problem will not be encountered.

The empirical analysis is carried out in terms of rates-of-change rather than in terms of levels or first differences of the variables. This is so because an examination of internal documents pertaining to monetary management as practiced in several Latin American central banks reveals that it is a target growth rate of credit that is set, rather than a given change in the absolute amount of credit. In addition, an analysis in terms of rates of change usually helps prevent econometric problems such as autocorrelation and multicolinearity.

Finally, the various tests are undertaken using quarterly data. Indeed, with annual series it would be virtually impossible to separate between cause and effect, namely, between the disturbance that triggered a reaction on the part of the central

bank and the economic consequences of said reaction. The use of monthly series would be too limiting because, for most Latin American countries, data on the relevant series are unavailable with that frequency. Besides, it would be necessary to allow for the the time lags that have been found to exist between the central bank's policy decision and its effect on domestic credit.

However, an econometric analysis with quarterly series should not have to imply that the reaction of the monetary authorities to a change in the macroeconomy need take place fully within three months. Therefore, suppose that the central bank determines the rate of growth of credit $\dot{C}_t$ in response to the value of three economic indicators Z, Z^*, and Z', and that there is a lag $t-n$ because it takes time for the relevant economic statistics to be gathered and processed, and for the authorities to meet and take a decision. Say that the decision results in a target or desired rate of growth of credit $\dot{C}_t^d$ for each quarter but, because of unexpected changes in the money multiplier or in other features of the banking system, $\dot{C}_t^d$ need not always equal $\dot{C}_t$. In other words,

$$\dot{C}_t = \phi d_1 Z_{t-n} + \phi d_2 Z_{t-n}{}^* + \phi d_3 Z_{t-n}{}' + (1 - \phi)\dot{C}_{t-1} + u_3, \qquad (3)$$

where d_1, d_2, and d_3 are reaction coefficients and ϕ quantifies the average relationship between the desired and the achieved rate of domestic credit growth.[1] When $\phi = 1$, all of the desired change is achieved; when $\phi > 1$, there has been an overshooting in the sense that a greater-than-targeted change was actually accomplished; and when $\phi < 1$, only part of the desired change was actually attained. This equation is quite useful in that we are given additional information about the central bank's average margin and direction of errors and greater flexibility in the estimation is allowed.

The final equation to be tested is thus one that contains the principal elements of equations (1), (2), and (3):

$$\dot{C}_t = e_0 + e_1 R_{t-n} + e_2 \dot{Y}_{t-n} + e_3 U_{t-n} + e_4 I_{t-n} + e_5 \dot{C}_{t-1} + u_4 . \qquad (4)$$

Equation (4) is thus designed to tell us whether we have before us a pattern A or a pattern B monetary authority and, if the latter, which is its principal objective.

Empirical tests were undertaken for the three Latin American countries where quarterly data are collected for all the variables mentioned (namely, Argentina, Chile and El Salvador), plus for two other countries that have all but an unemployment series (Mexico and Venezuela).[2] The five countries make up a good

[1]This is an adaptation of the well-known partial-adjustment model devised by Marc Nerlove.

[2]Quarterly averages were computed from the following sources. For all countries save Venezuela, C is domestic credit, item 32 in *International Financial Statistics* (hereafter, *IFS*); for Venezuela, and since in recent years virtually all credit has gone to the private sector, C is item 32c in *IFS*. For all countries, R is international reserves, item 1d in *IFS*. For all countries save El Salvador, Y is the index of industrial production: for Argentina, from item 66 in *IFS*; for Chile, from *Boletín Mensual* of the Banco Central de Chile (hereafter, *BMC*); for Mexico, from information provided by Banco de México and from its *Indicadores Económicos* (hereafter, *IE*); and for Venezuela, calculated from data on production in nominal terms deflated by the wholesale price index, from the Banco Central de Venezuela's *Boletín Mensual* (hereafter, *BMV*). For El Salvador, and as a proxy, Y is industrial consumption of electricity, from CONAPLAN's *Indicadores Económicos y Sociales* (hereafter, *IES*). For the three countries

sample in the sense that it includes some with low inflation and exchange-rate stability (El Salvador, Venezuela, and, for the period studied, Mexico) as well as others with histories of chronic inflation and devaluation (Argentina and Chile). Two alternative indicators of impending changes in the country's competitive advantage were tried: inflation as measured by changes in the wholesale price index P, and by changes in the index of nominal wages W. A simple, one-quarter lag was specified $n = 1$ so as to capture the immediate but systematic reaction of the central bank to a given change in any of the macroeconomic variables. However, since all central banks have very current information on the level of international reserves, and since many of them are responsible for computing the wholesale price index, two alternative series for R and P were generated. By calculating the quarterly average in two different ways, the second series allows for a lag that is shorter by one month than the standard one quarter.[3]

3. EMPIRICAL RESULTS

Table 1 shows the results obtained when estimating equation (4) in the above-described manner. There is an estimate for each country with $I = P$ and another where $I = W$, and both incorporate the statistically more successful definition of R and P.[4] Since in the cases of Mexico and Venezuela the coefficient of C_{t-1} was statistically insignificant at the 0.10 level, the results shown are those obtained when the variable was omitted.[5] For greater clarity, the table only indicates the estimated sign and value of those coefficients that achieved, as a minimum, the 0.10 level of significance in a one-tailed test.

As can be observed, this reaction function can explain in four of the five cases between 57 percent and 79 percent of the quarterly variation in domestic credit. However, our main interest clearly lies with the variables that reach statistical significance. On the basis of this criterion, Argentina and Chile appear to have had pattern B monetary authorities, whereas El Salvador, Mexico, and Venezuela seem to have had pattern A central banks. In the former two countries, Y_{t-1} and P_{t-1} (and, in Argentina, W_{t-1} as well) enter with positive coefficients, thus suggesting

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involved, U is the urban rate of unemployment: for Argentina, from the Ministerio de Economía y Trabajo's *Informe Económico* and from FIEL's *Indicadores de Coyuntura* (hereafter, *IC*); for Chile, from *BMC*; and for El Salvador, calculated from data in *IES*.

[3]For all countries, P is the wholesale price index: for Argentina, from the Instituto Nacional de Estadística y Censos' *Boletín de Estadística* and from *IC*; for Chile, from item 63 in *IFS*; for El Salvador, from *IES*; for Mexico, from the Banco de Mexico's annual reports and from *IE*; and for Venezuela, from *BMV*. For all countries, W is the index of nominal wages and salaries, usually in manufacturing: for Argentina, from *IC*; for Chile, from *BMC*; for El Salvador, from *IES*; for Mexico, item 65 in *IFS*; and for Venezuela, from the United Nations *Monthly Bulletin of Statistics*. The two series on R and P were calculated as follows: for example, 1969.I = (Jan. + Feb. + Mar.)/3 for the first series, and 1969.I = (Feb. + Mar. + Apr.)/3 for the second series. Hereafter, R and P denote use of the first series and R^* and P^* denote use of the second series.

[4]For Argentina, $R = R^*$, and for Chile, $R = R^*$ and $P = P^*$.

[5]This was done in order to show results that are free from the problems commonly associated with the use of the lagged dependent variable as an independent variable, although this Nerlove-type partial-adjustment model, unlike the similar Koyck model, does not embody an autoregressive scheme. For the two cases where C_{t-1} is included, and the sample is sufficiently large (Argentina and Chile), the Durbin h statistic is shown.

TABLE 1

ECONOMIC DETERMINANTS OF THE RATE OF GROWTH OF DOMESTIC CREDIT

EQUATION. $\dot{C}_t = e_0 + e_1 R_{t-1} + e_2 \dot{Y}_{t-1} + e_3 U_{t-1} + e_4 I_{t-1} + e_5 \dot{C}_{t-1} + u_4$

Country	e_0	e_1	e_2	e_3	e_4 ($I = \dot{P}$)	e_4 ($I = \dot{W}$)	e_5	R^2/F	D-W or DH/DF
Argentina									
1966.III–1974.IV	—	—	—	—	0.18 (1.96)*	n.i.	0.69 (5.13)*	0.74/15.95	1.44/28
	—	—	0.07 (1.44)	—	n.i.	0.13 (2.35)*	0.72 (5.62)*	0.75/17.07	2.09/28
Chile									
1965.II–1973.III	—	—	0.18 (1.66)	—	0.27 (1.86)*	n.i.	0.74 (5.42)*	0.79/21.25	12.50/28
	—	—	—	—	n.i.	—	0.77 (5.01)*	0.78/19.38	42.30/28
El Salvador									
1969.III–1974.III	—	—	−0.38 (5.70)*	—	—	n.i.	0.73 (3.66)*	0.71/7.21	2.13/15
	—	—	−0.37 (5.63)*	—	n.i.	—	0.70 (3.35)*	0.70/7.09	2.13/15
Mexico									
1967.III–1974.IV	—	0.05 (1.62)	—	n.a.	—	n.i.	n.i.	0.26/3.01	1.70/26
	—	0.06 (2.81)*	—	n.a.	n.i.	—	n.i.	0.23/2.65	1.63/26
Venezuela									
1971.IV–1975.I	2.47 (2.30)*	0.01 (1.87)*	—	n.a.	—	n.i.	n.i.	0.61/5.30	1.65/10
	2.40 (2.13)*	0.02 (3.64)*	—	n.a.	n.i.	—	n.i.	0.57/4.47	1.93/10

Notes: R^2 is the coefficient of determination, F is the F-statistic, D-W is the Durbin-Watson statistic, DH is the Durbin h-statistic, DF is degrees of freedom, n.i. indicates not included, n.a. indicates not available. t-statistics are in parentheses.

— Indicates that the estimated coefficient does not reach the 0.10 level of significance.

*indicates statistical significance at the 0.05 level or above.

the pursuit of one or two of the objectives consistent with a pattern B: the supplementing of government revenues through monetary expansion and/or the maintenance of a certain level of real liquidity in the economy even when that means validating, in whole or in part, past inflationary pressures. Over the long run, neither the Argentine nor the Chilean central bank authorities appear to have utilized monetary policy in direct response to changes in the rate of unemployment.[6]

With regard to the latter three countries, it is possible to observe that in Mexico and Venezuela R_{t-1} enters with positive coefficients, and that in El Salvador Y_{t-1} does so with a negative coefficient. This is consistent with a pattern A monetary policy, where the growth of domestic credit takes place in accordance with observed and, in one case, anticipated balance-of-payments developments.[7]

But perhaps it is unreasonable to assume that monetary policy in these five countries can actually be studied over a period of several years without making some explicit allowance for the fact that policy objectives can change over time, particularly when there are major changes in the political context within which the central bank has to operate. One relatively simple way of quantifying the effect of politics on the reaction pattern of central banks is to reestimate equation (4) with the addition of slope dummies for specific political regimes. Dummies were thus assigned a value of 1 during the observations corresponding to the second of the two political administrations in Chile, El Salvador, Mexico, and Venezuela that are encompassed in the sample.[8]

The results show that in El Salvador and Venezuela a change in the head of government did not result in a change of central bank objectives, as all of the slope dummy coefficients proved insignificantly different from zero—perhaps because these central banks enjoyed remarkable autonomy or because the change in presidency did not entail a shift in government priorities.

However, in Chile and Mexico the presidencies of Allende and Echeverría did have a measurable consequence upon the actions of the central bank. The coefficients of the two equations with the best statistical fit appear in Table 2.[9] The signs of f_2 and f_4 in the estimates for Chile continue to suggest a pattern B monetary policy, but both equations also imply a radical change in the relationship between $\dot{C}_t$ and both R_{t-1} and U_{t-1} during the Allende administration. Although traditionally there was no systematic relationship between international reserves and domestic credit ($f_1 = 0$), during the Allende period a negative correlation emerges ($f_1 + f_6 = -0.28$ or -0.34). This is inconsistent with patterns A and B, and can only be interpreted in light of what is now known about the period: a

[6]However, on the Chilean case, see below.

[7]However, on the Mexican case, see below. It is worth noting that $\phi = 1$ in the case of Mexico and Venezuela and that $\phi = 0.3$ in the other countries.

[8]The subperiods are the following ones: for Chile, President Frei (1965.II–1970.III) and President Allende (1970.IV–1973.III); for El Salvador, President Sánchez (1969.III–1972.II) and President Molina (1972.III–1974.III); for Mexico, President Díaz Ordáz (1967.III–1970.IV) and President Echeverría (1971.I–1974.IV); and for Venezuela, President Caldera (1971.IV–1974.I) and President Pérez (1974.II–1975.I). This breakdown was not attempted for Argentina because the sample includes four presidential subperiods, some of which were too short to be meaningful for our purposes.

[9]For Chile, $P = P^*$.

TABLE 2

MONETARY POLICY DURING THE ALLENDE AND ECHEVERRÍA REGIMES

EQUATION: $\dot{C}_t = f_0 + f_1 R_{t-1} + f_2 \dot{Y}_{t-1} + f_3 U_{t-1} + f_4 I_{t-1} + f_5 \dot{C}_{t-1} + f_6 DR_{t-1} + f_7 D\dot{Y}_{t-1} + f_8 DU_{t-1} + f_9 DI_{t-1} + u_5$

Country	f_0	f_1	f_2	f_3	f_4 $(I=\dot{P})$	f_4 $(I=\dot{W})$	f_5	f_6	f_7	f_8	f_9 $(I=\dot{P})$	f_9 $(I=\dot{W})$
Chile	19.35	—	0.26	−0.17	0.52	n.i.	—	−0.28	—	0.42	—	n.i.
	(3.08)*		(1.58)	(2.08)*	(1.37)			(2.87)*		(4.25)*		
	$R^2 = 0.92$ $F = 26.31$ DH = 2.45 DF = 24											
	24.52	—	0.16	−0.25	n.i.	0.53	—	−0.34	—	0.47	n.i.	—
	(3.84)*		(1.32)	(3.23)*		(1.84)*		(3.31)*		(4.48)*		
	$R^2 = 0.89$ $F = 22.21$ DH = 0.18 DF = 24											
Mexico	−12.00	0.18	—	n.a.	—	n.i.	n.i.	−0.07	—	n.a.	—	n.i.
	(1.89)*	(2.40)*						(1.80)*				
	$R^2 = 0.37$ $F = 2.21$ D-W = 1.86 DF = 23											
	−12.58	0.20	—	n.a.	n.i.	—	n.i.	−0.08	—	n.a.	n.i.	—
	(2.19)*	(3.00)*						(2.22)*				
	$R^2 = 0.38$ $F = 2.35$ D-W = 1.82 DF = 23											

Notes: See notes to Table 1.

hyperinflationary monetary expansion took place despite the fact that international reserves were falling as foreign capital stopped flowing into Chile, short-term credit lines were cut back, capital flight developed, and the current account deteriorated because of currency overvaluation. Also, a positive association between unemployment and credit growth ($f_3 + f_8 = 0.25$ or 0.22) emerged, suggesting that the authorities attempted to influence the unemployment rate through monetary policy.

As concerns the case of Mexico, the results shown in Table 2 confirm the earlier finding that the authorities followed a pattern A. However, during the portion of the Echeverría administration here analyzed (1971.I–1974.IV), it is possible to observe a weakening of that policy response because during this subperiod the coefficient of R_{t-1} drops in estimated value by about 60 percent since $f_1 + f_6 = 0.11$ or 0.12. This suggests that, at least during the first two-thirds of the Echeverría period, Mexican monetary authorities subordinated themselves less than previously to their external constraint. Perhaps this reduction in "discipline," if aggravated during the last third of the Echeverría administration, was a contributing factor to the large devaluation of the Mexican peso that took place in mid-1976.

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