ON THE STRUCTURALIST VIEW OF INFLATION IN SOME LATIN AMERICAN COUNTRIES: A REASSESSMENT

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I. INTRODUCTION

COMPARING inflation rates internationally, one finds a number of Latin American countries in the lead. Therefore, when investigating inflation in LDCs, it has become common practice to refer to these countries as prime examples. Mainly two theories have been put forward to explain Latin American inflation: the monetarist and structuralist hypotheses. While in the monetarist theory aggregate excess demand resulting from an excess supply of money is regarded as the only cause of inflation, the structuralist theory ascribes inflation to the composition of demand for products and services accompanied by inflexibilities in the productive structure.

The purpose of this paper is to give further empirical evidence for the structuralist view of inflation in six selected Latin American countries: Bolivia, Brazil, Chile, Colombia, Ecuador, and Peru. They have all been highly prone to inflation in the past. First, we outline the theoretical background of our investigation. Subsequently, empirical tests of the hypotheses are provided. Finally, we draw some conclusions from our study and relate the findings to the discussion of the harmful effects of export instability in LDCs.

II. THEORETICAL UNDERPINNINGS

In advancing a structuralist theory of inflation in Latin American countries two basic causes of inflation are stressed: (1) the rigidity of food supply, and (2) the inadequacy and instability of the purchasing power of exports.[1] Concerning the first factor, it is argued that under the conditions of a dual economy food supply is inelastic and hence prices are very flexible in response to changing demand, while in the industrial sector prices are said to move only upwards and to be rigid

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[1] For a comprehensive formulation of the structuralist theory of inflation, see O. Sunkel, "La inflación chilena: un enfoque heterodoxo," *El Trimestre Económico,* Vol. 25, No. 4 (October-December 1958), English translation: "Inflation in Chile: An Unorthodox Approach," *International Economic Papers,* No. 10 (1960).

downwards. During the process of industrialization there is a shift of resources from the agricultural to the industrial sector. With a stagnant agricultural sector growth in the industrial sector will increase the demand for agricultural products while reducing the supply in agriculture. Because of the rigidity of supply and the inadequacy of the purchasing power of exports which prevents sufficient food imports,[2] increasing demand for agricultural products induces higher prices. Yet these price increases are not matched by price declines in the industrial sector in response to excess supply. Hence, overall inflation is induced that must be ratified by monetary authorities in order to maintain employment. Recently, a modified hypothesis of structural inflation due to rigidity of supply in the agricultural sector was put forward, which elaborates the ratchet effect in the industrial sector assuming that prices may adjust symmetrically but with different rapidity in both sectors [4]. If food prices react more quickly than other prices, a price increase for food due to excess demand cannot be matched by a price decline for another product due to excess supply in the same period. Thus, a temporary rise of the general price level occurs, which becomes permanent if the money supply accommodates this general price increase. If this is not the case, the general price level may decline in the next period in response to the excess supply of a non-food product.

Regarding the second factor, there are short-term and long-term aspects of export-determined inflationary pressures. The inflationary impacts of long-term balance of payments deficits due to insufficient export performance and the implications of import-substitution policies have been examined in great detail in the past.[3] Recently, interest in the inflationary impact of short-term export fluctuations was strengthened due to the increasing instability of primary commodity markets.

Consider a country exporting only a few raw materials with inelastic export supply and export prices (in domestic currency) which are more flexible than domestic prices in response to demand changes.[4] Fluctuating export prices have direct and indirect impacts on the general price level. An excess demand for exports directly induces price increases for export products because of the inelasticity of supply. If export prices are not only more flexible but react also more quickly than domestic prices, the price rise for exports leads to at least a temporary increase of the general price level.[5] The temporary price increase is turned into a permanent one when money supply is expanded subject to higher prices.

[2] Although it may be argued that food is imported with priority, it is unlikely that imports are adequate to prevent increasing prices. See K.-O. Junginger-Dittel and H. Reisen, "Import Instability and LDCs' Response: The Destabilization of the Inflow of Capital and Intermediate Goods," *Weltwirtschaftliches Archiv,* Vol. 115, No. 4 (1979).

[3] See, for example, D. Seers, "A Theory of Inflation and Growth in Underdeveloped Economies Based on the Experience of Latin America," *Oxford Economic Papers,* Vol. 14, No. 2 (June 1962); J. B. Donges, *Über das Inflationsproblem in Entwicklungsländern unter besonderer Berücksichtigung von Argentinien, Brasilien, Chile und Mexiko* (Köln: C. Heymann, 1970); and S. Cochrane, "Structural Inflation and the Two-Gap Model of Economic Development," *Oxford Economic Papers,* Vol. 24, No. 3 (November 1972).

[4] This implies an infinitely elastic demand for exports and an exchange rate adjustment which lags behind the shifts of demand, which is not unrealistic for LDCs.

[5] Analogously, an excess supply of exports leads to a decline of the general price level.

Additionally, there are indirect effects of export fluctuations on inflation. Excess demand for exports not only increases prices for export products but also leads to higher incomes from export production and hence higher national income, especially if export multipliers are above unity. If these increased incomes induce an increased demand which is neither met by increased domestic production nor imports, inflation will be the result. In principle, an excess supply of exports, which leads to a reduction of incomes from export production and via the multiplier of national income, has contrary effects on inflation. However, there might be at least two reasons why such a deflationary effect does not occur in the longer run. First, a reduction of export earnings could induce an expansionary monetary policy in order to avoid recessional effects on national income caused by a decrease in exports. Secondly, tariffs could be levied or devaluations imposed in order to restore a balance of payments equilibrium (or a predetermined deficit), and thus deflationary effects caused by a decrease in exports could be reduced. Accordingly, a new upswing of exports would start on a higher level of the general price index, so that export instability would imply not only fluctuating but also positive inflation rates in the long run.

To sum up, the structuralist view of inflation suggests that if food prices or export prices react more rapidly than prices in the rest of the economy then the inflation rate will be affected not only by the excess supply of money, but also by the change of relative prices reflecting sectoral excess demand.[6]

Inflation, generated by an excess supply of money, can be described using Harberger's model of inflation.[7] Referring to his analysis we specify the following estimation equation:[8]

$$GCP = \alpha_0 + \underset{(-)}{\alpha_1 GGDP} + \underset{(+)}{\alpha_2 DGCP} + \underset{(+)}{\alpha_3 GM}, \qquad (1)$$

where *GCP* denotes the percentage change of consumer prices; *GGDP* denotes the percentage change of real gross domestic product; *DGCP* denotes the first differences of the percentage changes of consumer prices; and *GM* denotes the percentage change of money supply. Inflation is, as conventionally, measured by consumer price changes. Although, according to the above considerations, a price index of all domestically produced and imported products should be used, the consumer price index can be accepted as a proxy. However, as in most developing countries prices are subject to government intervention, some stochastic elements may be incorporated in this measure. *DGCP* is introduced as a proxy for expected inflation reflecting the costs to hold money. Money is defined in the narrow as well as in the broader definition, i.e., *M*1 and *M*2 respectively. To test the influence of money on prices, *GM* in equation (1) is replaced with current, one-year-lagged and two-year-lagged values of *M*1 (i.e., *GM*1, *GLM*1, and *GLLM*1) and *M*2 (i.e., *GM*2, *GLM*2, and *GLLM*2).[9]

[6] For a more formal presentation of the argument, see Wachter [4, p. 24 ff.].

[7] See A. Harberger, "The Dynamics of Inflation in Chile," in *Measurement in Economics: Studies in Mathematical Economics and Econometrics in Memory of Yehuda Grunfeld,* by C. Christ et al. (Stanford: Stanford University Press, 1963).

[8] Signs in brackets indicate the predicted signs.

[9] Focusing on annual data we assume the adjustment process to be accomplished within two years.

We can use the changes in the relative food price (*GRFP*) and the relative export price (*GREP*)[10] as proxies for the quantity of excess demand in the agricultural and foreign sector respectively, and add them to equation (1):

$$GCP = \beta_0 + \underset{(-)}{\beta_1 GGDP} + \underset{(+)}{\beta_2 DGCP} + \underset{(+)}{\beta_3 GM} + \underset{(+)}{\beta_4 GRFP}, \tag{2}$$

$$GCP = \gamma_0 + \underset{(-)}{\gamma_1 GGDP} + \underset{(+)}{\gamma_2 DGCP} + \underset{(+)}{\gamma_3 GM} + \underset{(+)}{\gamma_4 GREP}. \tag{3}$$

In the structuralist view, represented by equations (2) and (3) a passive money supply is a necessary condition for the long-run inflation rate to be affected by excess demand in the agricultural or foreign sector.[11] Then in our analysis, a statistically significant influence of the structuralist variables in the estimation equations can be interpreted as evidence that money supply reacts passively. On the other hand, where we do not find the influence of the structuralist variables to be valid, strong support to the assumption of active money cannot be given. However, such an exogenous money supply is essential for a pure monetarist interpretation of equation (1). Thus, where only monetary factors are found to induce inflation, necessary but not sufficient conditions for a pure monetarist view are fulfilled.[12]

Hence we specify the hypotheses as follows:

*H*1: Inflation is only explained by monetary factors,

*H*2: Inflation is explained both by monetary and structural factors, whereby *H*2*a* refers to structural bottlenecks in agriculture and *H*2*b* to those in the foreign sector.

We do not reject *H*1 if equation (1) is valid and the structural factors are statistically insignificant in equations (2) and (3). But we reject *H*1 and do not reject *H*2 if the structural factors are significant and prices for food or exports react more rapidly than consumer prices.

III. EMPIRICAL RESULTS

An indirect test of the assumption that food and export prices react more rapidly to excess demand than other prices is performed by examining the fluctuations of food, export prices, and other prices. If prices adjust more quickly in the agricultural and export sector than elsewhere in the economy, agricultural and export prices should vary more than other prices. To measure these flexibilities, log-linear trends were fitted to annual price series data taken from IMF and UN statistics [1] [3]. As indicated by the standard error of equation,[13] instability of

[10] Both relative prices are defined as the ratio of food prices or export prices to consumer prices.

[11] It is unlikely that the velocity of money circulation can increase without limitation.

[12] The proof of an exogenous money supply would involve a clear-cut test of causality between money and prices. However, this is beyond the scope of the paper.

[13] We are conscious of the shortcomings of this approach. For a more detailed discussion of the problems measuring the instability of time-series see the recent discussion in the *Oxford Bulletin of Economics and Statistics*, 1978–79.

TABLE I
EVIDENCE FOR MONETARIST AND STRUCTURALIST HYPOTHESES FROM REGRESSION RESULTS

Country \ Hypothesis	Monetarist View	Structuralist View	
	H1	*H2a*	*H2b*
Bolivia	−	+	−
Brazil	0	−	−
Chile	−	+	−
Colombia	−	+	−
Ecuador	+	−	−
Peru	−	−	+

Sources: Appendix Tables II–VIII.
+ Hypothesis is not rejected.
− Hypothesis is rejected.
0 Undetermined.

food and export prices is greater than that of consumer prices except in the case of Brazil (Appendix Table I). Therefore, the necessary conditions for the structuralist hypotheses are likely to be fulfilled for most countries.

In the next step we determined the lag structure for money in the narrow and broad definition by estimating equation (1) using stepwise regressions. Accepting the obtained lag structure, equations (2) and (3) were fitted to the data. From a statistical point of view results are conclusive[14] and not found to be sensitive to the use of either $M1$ or $M2$ (see Appendix Tables II-VII). The implications of the regression results for our hypothesis are shown in Table I.

A monetary view of inflation proved to be superior to the structuralist hypothesis only in the case of Ecuador. For Bolivia, Chile, Colombia, and Peru structural factors were found to be more relevant in the explanation of the inflation process. While the export-induced inflation hypothesis is not rejected for Peru we reject it for the other countries. On the other hand, inflationary pressures from agricultural bottlenecks are strongly supported for Bolivia, Chile, and Colombia. An ambiguous pattern of results was obtained for Brazil. In this case the structuralist view can be rejected but there is also not much evidence for a monetarist explanation.[15]

IV. CONCLUSIONS

Our analysis does not give strong support for a single explanation of inflation in the Latin American countries under investigation. However, empirical evidence for the structuralist view was found in most cases,[16] whereby basic inflationary

[14] See columns for $\bar{R}^2$, F-test, and Durbin-Watson test in Appendix Tables II–VII. Multicollinearity did not appear as a problem. Nearly all variables have the expected sign.

[15] The poor results for Brazil reflect a general problem which may be inherent to our specification of the model. According to Jeffrey Nugent and Constantine Glezakos the estimation could be performed more sophisticatedly [2]. For the purpose of our investigation, however, a more simplified version seemed to be acceptable.

[16] Yet the use of annual data may have prevented us from capturing all short-term effects.

pressures from the agricultural sector seem to dominate those of the foreign sector in an inter-country comparison. The differentiated pattern of results may be subject to several factors. First, inflationary impulses from bottlenecks in the agricultural sector are dependent on the food supply elasticity. In the case of a developed agricultural sector we would expect a flexible supply response to an increasing demand for food and hence no basic inflationary pressure. This would also hold if the import capacity is adequate to allow imports of food for domestic consumption. Secondly, an excess demand for exports does not induce price increases if exchange rates are flexible. In that case there are no major spillovers from varying prices on world markets to the domestic prices. This is also true if the contribution of the export sector is negligible or export supply elastic in response to changing demand. Finally, as already mentioned, the strength of monetary control is a crucial factor for structural factors to become important in the inflationary process.

The results may also be seen in the wider context of the discussion concerning harmful effects of export instability on growth in LDCs, where it is argued that fluctuating exports induce inflation which affects growth negatively. According to our inquiry, at least for one country of the sample, Peru, the influence of export fluctuations was found to be valid. We are aware, however, that only direct effects of export instability on inflation were analyzed explicitly. As indirect effects are mixed with other factors it is difficult to identify them empirically. Although, in all countries, the existence of these effects cannot be excluded, it can be argued that strong support should be given to the argument only if both effects are found to be operative.

REFERENCES

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3. United Nations. *Statistical Yearbook* (various years).
4. WACHTER, S. M. *Latin American Inflation: The Structuralist-Monetarist Debate* (Lexington: Lexington Books, 1976).

APPENDIX TABLE I

TREND OF CONSUMER, FOOD, AND EXPORT PRICES

		$\bar{R}^2$	F-test	Standard Error
Bolivia 1958–75	log CP= −157.968+0.082***T	0.870	114.301	0.169
	(10.691)			
	log FP= −158.804+0.083***T	0.801	69.638	0.218
	(8.345)			
	log EP= −203.187+0.105***T	0.751	52.195	0.320
	(7.225)			
Brazil 1963–76	log CP= −474.711+0.243***T	0.954	268.224	0.224
	(16.378)			
	log FP= −400.426+0.205***T	0.904	123.123	0.279
	(11.096)			
	log EP= −527.611+0.270***T	0.967	384.101	0.207
	(19.599)			
Chile 1963–76	log CP=−1160.829+0.589***T	0.804	54.452	1.205
	(7.379)			
	log FP=−1296.421+0.658***T	0.775	45.833	1.466
	(6.770)			
	log EP=−1162.922+0.590***T	0.734	36.822	1.467
	(6.068)			
Ecuador 1965–76	log CP= −169.278+0.088***T	0.923	132.887	0.091
	(11.528)			
	log FP= −209.565+0.108***T	0.910	111.688	0.122
	(10.568)			
	log EP= −249.003+0.128***T	0.755	34.811	0.260
	(5.900)			
Colombia 1958–76	log CP= −228.924+0.118***T	0.976	728.109	0.105
	(26.983)			
	log FP= −242.583+0.125***T	0.960	427.420	0.144
	(20.674)			
	log EP= −284.363+0.146***T	0.907	176.248	0.263
	(13.276)			
Peru 1958–76	log CP= −189.734+0.098***T	0.977	771.435	0.085
	(27.775)			
	log FP= −139.302+0.073***T	0.878	130.997	0.152
	(11.445)			
	log EP= −289.927+0.149***T	0.915	193.547	0.256
	(13.912)			

Sources: [1] [3].

Note: Figures in parentheses are t-statistics.

*** Significant at α=0.01.

APPENDIX

REGRESSION RESULTS FOR COMPETING

	Constant	*GGDP*	*DGCP*	*GM*1	*GLM*1	*GLLM*1
Monetarist view	−0.100	−0.322	0.262**	0.601**	0.734***	
*H*1: 1955–75		(−0.333)	(2.017)	(2.031)	(2.821)	
	−0.167	0.180	0.549***			
		(0.212)	(4.149)			
Structuralist view	−0.038	−0.711	0.264*	0.376*	0.632***	
H2a: 1958–75		(−0.706)	(1.807)	(1.519)	(3.021)	
	−0.102	−1.151	0.405**			
		(−1.225)	(2.595)			
H2b: 1955–77	−0.090	−0.331	0.268**	0.517*	0.743***	
		(−0.333)	(2.000)	(1.503)	(2.768)	
	−0.175	0.221	0.579***			
		(0.249)	(3.800)			

Note: Figures in parentheses are *t*-statistics.
*** Significant at α=0.01.

APPENDIX

REGRESSION RESULTS FOR COMPETING

	Constant	*GGDP*	*DGCP*	*GM*1	*GLM*1	*GLLM*1
Monetarist view	0.470	−2.436***	0.328*	−0.103	0.166	
*H*1: 1963–77		(−4.396)	(1.773)	(−0.417)	(1.119)	
	0.363	−2.472***	0.391**			
		(−4.452)	(1.938)			
Structuralist view	0.439	−2.092***	0.282	−0.136	0.178	
H2a: 1963–76		(−3.144)	(1.404)	(−0.513)	(1.084)	
	0.382	−2.188***	0.345*			
		(−3.198)	(1.521)			
H2b: 1963–77	0.483	−2.492***	0.311	−0.120	0.157	
		(−3.339)	(1.266)	(−0.401)	(0.897)	
	0.331	−2.343***	0.435*			
		(−2.983)	(1.567)			

Note: Figures in parentheses are *t*-statistics.
*** Significant at α=0.01.
** Significant at α=0.05.

TABLE II

HYPOTHESES OF INFLATION IN BOLIVIA

GM2	*GLM2*	*GLLM2*	*GRFP*	*GREP*	$\bar{R}^2$	*F*-test	Durbin-Watson Test
					0.676	9.870	1.259
0.473**	0.754***	0.181***			0.792	13.982	1.139
(1.989)	(3.394)	(2.928)					
			1.706***		0.855	17.529	1.426
			(3.038)				
0.411*	0.641***	0.343	1.316**		0.876	17.472	1.320
(1.491)	(2.897)	(1.158)	(2.291)				
				0.076	0.657	7.515	1.305
				(0.530)			
0.489**	0.762***	0.197**		−0.055	0.778	10.911	1.109
(1.967)	(3.305)	(2.689)		(−0.449)			

** Significant at $\alpha=0.05$.
* Significant at $\alpha=0.10$.

TABLE III

HYPOTHESES OF INFLATION IN BRAZIL

GM2	*GLM2*	*GLLM2*	*GRFP*	*GREP*	$\bar{R}^2$	*F*-test	Durbin-Watson Test
					0.664	6.441	1.766
0.086	0.269				0.654	6.203	1.918
(0.263)	(0.263)						
			0.006		0.542	3.364	1.728
			(0.032)				
−0.026	0.246		0.012		0.496	2.971	1.860
(0.063)	(1.137)		(0.055)				
				0.038	0.609	4.431	1.809
				(0.126)			
0.124	0.293			−0.076	0.601	4.312	1.852
(0.322)	(1.274)			(−0.253)			

** Significant at $\alpha=0.05$.
* Significant at $\alpha=0.10$.

APPENDIX

REGRESSION RESULTS FOR COMPETING

	Constant	*GGDP*	*DGCP*	*GM*1	*GLM*1	*GLLM*1
Monetarist view	−0.170	−6.313*	0.621***	−0.150	1.512***	
*H*1: 1963–77		(−1.876)	(3.163)	(−0.335)	(4.138)	
	−0.195	−3.626**	0.185*			
		(−2.213)	(1.753)			
Structuralist view	−0.239	−3.570	0.471*	0.451	−0.544	1.467**
H2a: 1963–76		(−1.354)	(1.838)	(0.981)	(−0.665)	(2.543)
	−0.248	−0.459	0.814***			
		(−0.351)	(4.184)			
H2b: 1963–77	0.192	−5.673*	0.568**	−0.065	1.427***	
		(−1.597)	(2.350)	(−0.126)	(3.271)	
	−0.197	−3.556**	0.166			
		(−2.022)	(1.335)			

Note: Figures in parentheses are *t*-statistics.
*** Significant at α=0.01.

APPENDIX

REGRESSION RESULTS FOR COMPETING

	Constant	*GGDP*	*DGCP*	*GM*1	*GLM*1	*GLLM*1
Monetarist view	−0.205	0.065	0.380***	0.552***	0.349**	0.860***
*H*1: 1955–77		(0.095)	(3.960)	(3.855)	(2.361)	(4.520)
	−0.087	0.303	0.386***			
		(0.421)	(3.760)			
Structuralist view	−0.001	−1.864***	0.176**	0.243**	0.372***	0.564***
H2a: 1958–76		(−3.718)	(2.524)	(1.909)	(3.657)	(4.450)
	0.058	−1.520***	0.189***			
		(−3.480)	(2.849)			
H2b: 1955–77	−0.216	−0.208	0.270***	0.669***	0.368**	0.875***
		(−0.279)	(3.817)	(3.541)	(2.458)	(4.570)
	−0.087	0.238	0.385***			
		(0.297)	(3.599)			

Note: Figures in parentheses are *t*-statistics.
*** Significant at α=0.01.

TABLE IV

HYPOTHESES OF INFLATION IN CHILE

GM2	*GLM2*	*GLLM2*	*GRFP*	*GREP*	$\bar{R}^2$	*F*-test	Durbin-Watson Test
					0.928	36.404	1.768
0.358**	0.839***				0.974	105.395	1.861
(2.728)	(8.731)						
			0.324**		0.987	52.195	2.407
			(2.543)				
0.107$^{n.s.}$	−0.103$^{n.s.}$	1.123***	0.270**		0.995	349.228	2.105
(0.812)	(−0.335)	(4.334)	(2.517)				
				0.188	0.918	25.770	1.863
				(0.430)			
0.374**	0.821***			0.097	0.971	74.031	1.914
(2.561)	(7.220)			(0.379)			

** Significant at $\alpha=0.05$.
* Significant at $\alpha=0.10$.

TABLE V

HYPOTHESES OF INFLATION IN COLOMBIA

GM2	*GLM2*	*GLLM2*	*GRFP*	*GREP*	$\bar{R}^2$	*F*-test	Durbin-Watson Test
					0.793	15.596	1.434
0.161	0.329**	0.589***			0.797	15.913	1.620
(1.268)	(2.437)	(4.713)					
			1.425***		0.935	37.157	2.328
			(5.390)				
0.065	0.296***	0.401***	1.253***		0.954	52.399	1.846
(0.844)	(3.999)	(4.961)	(5.879)				
				−0.059	0.792	13.065	1.584
				(−0.954)			
0.176*	0.332**	0.592***		−0.012	0.782	12.366	1.648
(1.187)	(2.362)	(4.552)		(−0.217)			

** Significant at $\alpha=0.05$.
* Significant at $\alpha=0.10$.

APPENDIX

REGRESSION RESULTS FOR COMPETING

	Constant	*GGDP*	*DGCP*	*GM*1	*GLM*1	*GLLM*1
Monetarist view	−0.024	0.002	0.464***	0.135***	0.260***	0.158***
*H*1: 1955–77		(0.032)	(3.522)	(3.241)	(8.030)	(3.727)
	−0.032	0.125*	0.437**			
		(1.447)	(2.609)			
Structuralist view	−0.062	0.086	0.490**	0.127*	0.301***	0.230***
H2a: 1965–76		(1.028)	(3.901)	(2.617)	(11.302)	(5.409)
	−0.111	0.152	0.593*			
		(0.697)	(1.527)			
H2b: 1955–77	−0.024	0.002	0.464***	0.135***	0.260***	0.158***
		(0.022)	(3.522)	(3.241)	(8.030)	(3.727)
	−0.030	0.118*	0.402**			
		(1.352)	(2.332)			

Note: Figures in parentheses are *t*-statistics.
*** Significant at α=0.01.

APPENDIX

REGRESSION RESULTS FOR COMPETING

	Constant	*GGDP*	*DGCP*	*GM*1	*GLM*1	*GLLM*1
Monetarist view	0.130	−0.100**	0.673**	0.142	0.534	
*H*1: 1955–77		(−1.806)	(1.816)	(0.815)	(0.362)	
	0.094	−0.116**	0.489			
		(−2.216)	(1.319)			
Structuralist view	0.127	−0.646	0.962***	−0.067	−0.024	
H2a: 1958–76		(−1.047)	(2.933)	(−0.399)	(−0.167)	
	0.060	−0.356	0.784**			
		(−0.504)	(2.032)			
H2b: 1955–77	0.102	−0.920**	0.395	0.088	0.152	
		(−1.974)	(1.210)	(0.602)	(1.185)	
	0.061	−1.041**	0.219			
		(−2.473)	(0.709)			

Note: Figures in parentheses are *t*-statistics.
*** Significant at α=0.01.

TABLE VI

HYPOTHESES OF INFLATION IN ECUADOR

GM2	*GLM2*	*GLLM2*	*GRFP*	*GREP*	$\bar{R}^2$	*F*-test	Durbin-Watson Test
					0.927	49.495	1.118
0.108*	0.272***	0.195***			0.883	29.606	1.062
(1.761)	(6.246)	(3.100)					
			0.087		0.984	82.115	1.695
			(0.646)				
0.133	0.398**	0.348*	−0.071		0.898	12.686	0.830
(0.761)	(4.482)	(2.187)	(−0.200)				
				0.000	0.922	38.300	1.119
				(0.000)			
0.087	0.276***	0.197***		0.021	0.881	24.527	1.188
(1.313)	(6.270)	(3.111)		(0.911)			

** Significant at $\alpha=0.05$.
* Significant at $\alpha=0.10$.

TABLE VII

HYPOTHESES OF INFLATION IN PERU

GM2	*GLM2*	*GLLM2*	*GRFP*	*GREP*	$\bar{R}^2$	*F*-test	Durbin-Watson Test
					0.377	3.870	1.040
0.354*	0.126				0.448	4.850	1.176
(1.466)	(0.592)						
			−0.287		0.395	2.959	1.214
			(−1.123)				
0.030	0.011	0.312	−0.126		0.438	2.949	1.184
(0.110)	(0.055)	(1.334)	(−0.446)				
				0.163***	0.565	5.928	1.306
				(2.734)			
0.240	0.307*			0.167***	0.646	7.947	1.513
(1.218)	(1.710)			(3.071)			

** Significant at $\alpha=0.05$.
* Significant at $\alpha=0.10$.