

THE POLITICAL ECONOMY OF STABILIZATION

IN BRAZIL

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## ABSTRACT

This paper tries to explain why Brazilian inflation has been endemic and despite suffering a severe growth collapse in the 1980s, various attempts at stabilization have failed. The role of changing factor endowments, and institutional weaknesses -- particularly of the financial control institutions of the state are highlighted.



production, even at the cost of inflation. The international return to capital for capital-intensive manufacture was high. The return to labor was also high for capital-intensive manufacture because of labor's relative scarcity. In this way factor endowments laid the basis for an industry-labor alliance in favor of rapid growth of capital-intensive manufacturing or internationally protected labor-intensive manufacture.

A second political factor plays a role in explaining the failure of stabilization in Brazil. The financial control institutions of the state, the Central Bank and Finance Ministry, were too weak relative to spending authorities to enforce stabilization. Spending/investment-oriented government institutions such as the BNDE (Banco Nacional de Desenvolvimento Econômico; the name was later the Banco do Brazil), and state-owned enterprises frequently opposed mandates to curb spending. These spending/investment-oriented institutions were often successful in their opposition to spending restraints thanks to specific institutional and legal arrangements which left central monetary authorities weak. Furthermore, the BNDE had powerful pro-spending supporters among its employees, industrialists borrowing from the BNDE, and even military personnel.

The first part of this chapter presents a broad statistical picture of the Brazilian economy since 1950. It sketches the two "big pushes" followed by busts which characterize Brazilian post-war economic history. The second part of the paper outlines the various stabilization failures in more detail, and introduces possible political explanations for them. The third part looks closely at the politics of the failed reform efforts between 1979 and 1984, highlighting the role of industrial opposition to stabilization and the weakness of financial control institutions. The final part uses a Krueger/Leamer three-factor, multicommodity model of an open economy in

## Introduction

Brazil's GDP grew faster than most developing countries' during the first three decades after world War II, although it has suffered a serious growth collapse since then, as Table 1 indicates. Throughout the period, inflation has been endemic. As Table 3 outlines, there have been numerous attempts to end it, but as of this writing only two periods of sustained commitment to stabilization policy. Of the rest, none lasted more than a year and none succeeded in curbing demand or inflation over the medium or long run. The success of the latest effort, Collor's 1990 stabilization plan, is also in doubt. The Brazilian case, in comparison with others in this project, is like Sherlock Holmes' "dog that didn't bark."

Two things are key in explaining the failure of post-World War II stabilization efforts. First, interest groups opposed to stabilization, specifically industry, labor and to some extent coffee growers, were able to exploit politicians' fears of losing their jobs, either to the military or to other politicians, if they continued the policies. Both prior to the 1964 military coup and as gradual political opening occurred after 1975, government leaders aborted stabilization when it generated or threatened to generate considerable support by anti-stabilization interest groups for heightened military intervention, or for opposition parties as scheduled times for presidential succession approached.

Industry's opposition to stabilization and its sometimes alliance with labor in a pro-growth coalition reflects how Brazil's factor endowment shaped industrialists' interests. As a land-abundant, labor- and capital-scarce economy Brazil enjoyed a comparative advantage in capital-intensive manufacturing. Both labor and capital had an interest in high growth driven by capital-intensive manufacture or heavily protected labor-intensive

until 1967, which is described in slightly more detail below. The third phase, from 1967 to about 1980, included Brazil's miracle years, as well as another big push under Delfim Netto in the late 1970s. This too, like the Kubitschek big push, was financed at first by cheap foreign loans (this time syndicated bank credit frequently offered at negative real interest rates) and later in the 1970s by inflationary financing.

This big push also ended with a debt crisis and high inflation -- the cure for which was sought in a series of failed heterodox stabilization plans. Once again as in 1963-64, it was not until acute inflation had led to a shrinking of real money balances in 1980-84 that a sustained stabilization effort commenced. Its failure, the lurch to hyperinflation in 1988 and 1989, and a large decrease in real money balances, evident in Table 4, led to Collor's 1990 stabilization plan.

The timing of the only two sustained stabilization plans in post-World War II Brazil, Bulhões and Campos (1964-67), and Delfim Netto (1980-84), lends credence to a political explanation of stabilization based on state revenue maximization which is implicit in the economic analysis of Lal and Myint.<sup>1</sup> It appears that the state tolerates inflation, if not encouraging it, until inflation no longer yields a tax. While this is a possible explanation of the initiation of stabilization efforts that the government was committed to sustaining, initiation of the numerous failed stabilization efforts corresponds to balance of payments pressure. The failure of stabilization implementation in Brazil requires yet a different political

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<sup>1</sup>This kind of explanation, developed in the context of economic policies such as taxation, has not been explored in the political science literature on stabilization. On state revenue maximization and tax policy, see: Margaret Levi, Of Rule and Revenue (Berkeley: University of California Press, 1989). The economic analysis cited is in Lal (1987) and Lal and Myint (1991).

tying the political explanations to the deeper economic currents flowing from Brazil's changing factor endowments.

### 1. Brazilian Growth and Inflation Since 1950

Figures 2.1 through 2.5 chart Brazilian GDP growth rates, increases in capital stock, real wages, current account deficits (as a percentage of GDP) and inflation rates from 1950 to 1989. Table 2 lists the Presidents of Brazil between 1919 and 1989 and the percentage of the population who voted for them. Table 3 lists the various stabilization plans undertaken in the post-war period.

Brazil's post-war economic history can be usefully divided into four phases. The first phase lasted until the military takeover in 1964. It was a period of state-induced industrialization, including the big push in investment under Kubitschek, financed by the forced savings from inflation and rising capital inflows, mainly in the form of direct foreign investment. (Note the big increase in the capital stock between 1956 and 1960 in Figure 2.2. This led to acute inflation by 1963 and a debt crisis (see Figure 2.4).

Inflation yields revenue to the government as long as the rate of inflation is less than the rate of growth of money balances. If real money balances start declining, that means people are escaping the inflation tax, whose yield falls progressively. Table 4 provides the series of real money balances. It shows that in 1963 and 1964 there was a concomitant decrease in the yield of the inflation tax. The first sustained post-war stabilization program was launched in 1964 when inflation reached the point where the government was no longer collecting a tax on it.

The second phase of post-war Brazilian economic history is the period of stabilization and liberalization under Bulhões-Campos lasting from 1964



Quadros, governor of Sao Paulo, over easing credit controls hurting Sao Paulo industrialists. The new finance minister, José Maria Witaker, whose appointment Quadros had recommended, immediately eased monetary policy.

The next stabilization effort came on the heels of Kubitschek's ambitious big push and the balance of payments trouble and inflationary pressure associated with it. In June, 1958, Finance Minister José Maria Alkim resigned amid complaints that he had failed to secure international financing for Brazil or to control inflation. His replacement, Lucas Lopes, and director of the BNDE, Roberto Campos, drafted a two-stage stabilization program announced after the October 1958 congressional elections. There were simultaneous negotiations with the IMF over a standby agreement.<sup>3</sup> The IMF pushed for shock treatment to rapidly reduce inflation and for elimination of multiple exchange controls. The Brazilians preferred a more gradual approach and continuation of exchange controls. Controversy over stabilization widened into a debate over development strategy in general. In June 1959 Kubitschek became the first Latin American president to break off relations with the IMF.<sup>4</sup>

Despite Quadros' earlier lobbying for loose credit on behalf of São Paulo industrialists, during his presidential campaign to succeed Kubitschek in 1960 Quadros made the large federal deficit and need for financial retrenchment a key issue. In March 1961, three months after his inauguration, Quadros announced a new stabilization program drastically cutting

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<sup>3</sup>On IMF conditionality in Brazil see Jorge Marshall, Mose Luis Mardones S., and Isabel Marshall L., "IMF Conditionality: The Experiences of Argentina, Brazil, and Chile," in John Williamson (ed.), IMF Conditionality (Washington, DC: Institute for International Economics, 1983).

<sup>4</sup>This set a precedent for Brazil. In the decades of debt renegotiation after the Mexican moratorium of 1982 the Brazilians have more frequently broken off talks with foreign creditors than have other Latin American countries.

explanation. To this we now turn.

## 2. Stabilization Failures and Possible Political Explanations

Brief History of Stabilization Episodes: As Table 3 outlines, Brazil's first post-World War II stabilization effort came under President Getúlio Vargas and lasted from October 1953 to May 1954. It occurred in the context of a \$1 billion balance of payments deficit, 21% inflation for 1952 (considered a large jump over 1951's 11%) and a slowdown in industrial production in early 1953. In June 1953 Vargas's first finance minister, Horacio Lafer, resigned in frustration over the obstacles to formulating and implementing a coherent stabilization plan. The new finance minister, Oswaldo Aranha, had more success. The "Aranha Plan" of October 1953 promised credit restrictions and new multiple exchange controls involving a de facto devaluation. The effort fell apart when Vargas was unable/unwilling to resist pressure for wage increases from civil servants and the military.<sup>2</sup>

Vargas bequeathed a major financial crisis to his successor in 1954, Café Filho. The first of Café Filho's three finance ministers, Eugenio Gudin, previously an Executive Director of the IMF and proponent of orthodox stabilization, pledged in August 1954 to carry out the Aranha Plan. Consulting the IMF and working closely with the head of Brazil's supervisory monetary board (Superintendencia da Moeda e Credito, SUMOC), Octávio Gouvea de Bulhoes, Gudin successfully tightened the money supply. This induced several bank failures and considerable political opposition. Gudin resigned in April 1955 sensing the president's unwillingness to support stabilization. This unwillingness was signaled in part by his negotiations with Janio

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<sup>2</sup>The classic political history of economic policy in Brazil is Thomas E. Skidmore, Politics in Brazil 1930-1964 (New York: Oxford University Press, 1967). The more recently published sequel (Skidmore, 198?) is also bound to become a classic.

savings.<sup>5</sup> Foreign exchange rates were simplified, ending subsidies on imported goods such as oil, wheat and newspaper which had been ended and reinstated several times before. A crawling peg was also introduced. Interest rate controls were lifted and policies were implemented to promote capital market growth. After an initial large increase in wages, wage growth was restricted. Inflation was brought under control. In terms of reducing inflation this was a case of successful stabilization, yet even in this case orthodox monetary control measures were avoided.

The next stabilization effort came as inflation began to pick up slightly in the early 1970s, although it remained low by Brazilian standards. The then-Finance Minister, Mário Henrique Simonsen, contracted the money supply in 1974 during the administration of General Geisel. But this modest stabilization effort ended by October in anticipation of November elections.<sup>6</sup> In 1979 Simonsen -- who was by then Minister of Planning for the administration of General Figueiredo -- designed a stabilization program including the promise of explicit fiscal transfers to cover subsidized credit, greater government control of state-owned enterprise (SOE) expenditure and gradual reduction of export subsidies. In August 1979, Simonsen was replaced by Antônio Delfim Netto, who immediately embarked on an expansionary path. Balance of payments problems forced Delfim Netto into a stop-go cycle of stabilization beginning in December 1980 and lasting through 1984.

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<sup>5</sup> Indexation later had unintended consequences when it subsequently spread to most of the economy, including wages. But during this first period of stabilization wage indexation demands by labor leaders were fought off.

<sup>6</sup> Albert Fishlow, "A Tale of Two Presidents: The Political Economy of Crisis Management," in Alfred Stepan (ed.), Democratizing Brazil. Problems of Transition and Consolidation (New York: Oxford University Press, 1989), pp. 88-89.

subsidies on consumer imports (wheat and oil), simplifying the multiple exchange rate system, devaluing the cruzeiro de facto, and promising to cut the public sector deficit. Before long, however, Quadros resigned.

The Dantas-Furtado Plan, named after unofficial minister for economic planning, Celso Furtado, and minister of finance, San Tiago Dantas, was a three-year plan with a short-term inflation-fighting component announced in January 1963 by President João Goulart. The plan contained proposals to fight inflation through credit, exchange, federal budget, and wage policies. The IMF nevertheless decided to release new funds only in response to detailed stabilization steps specified after an IMF mission to Brazil. Even before this mission could arrive, salary increases for civil servants and the military became a critical test for the stabilization portion of the Dantas-Furtado Plan. Its failure as an anti-inflation program began in May 1963 when Goulart was not willing to resist the military's request for a 70% wage hike.

The most sustained stabilization and reform effort in Brazil's post-World War II experience to date came after the military coup of 1964 and lasted until a change in military leadership in 1967. The military government headed by General Castelo Branco brought former SUMOC director Bulhões into government as minister of planning and former BNDE chief under Kubitschek, Roberto Campos, into government as minister of finance. Both had experience in previous Brazilian stabilization attempts. These two designed and implemented a heterodox program of gradual stabilization that relied heavily on fiscal, rather than monetary, measures. It encompassed a program of trade liberalization, introduction of a value-added tax, a gradual reduction of the public sector deficit involving cuts in current but not capital expenditure, creation (at least in principle) of an independent Central Bank and a policy of indexation in financial markets to boost

electoral pressure. In Brazil's case, the first two are partly related to geography. The argument based on ideology suggests that, in part because it is a continental economy, Brazil has developed a strong nationalist and development/growth-oriented ideology prevalent among the elite and state actors. Fishlow cites his failure to take ideology into account as one of two reasons why he underestimated Brazil's future economic problems in his early writing. "I underestimated," he says, "how dominating the grandeza theme would prove."<sup>9</sup> In Sikkink's case this argument is associated with a view of the Brazilian state as very strong relative to others in Latin America such as Argentina.<sup>10</sup> Leff cites ideology but connects it with a third category of explanations, those based on the strength of different social and political coalitions. Unlike some less-developed countries, Leff writes, "Brazil's monetary tradition is not one of unquestioned orthodoxy and inexorable opposition to inflation. Rather the prevailing doctrine has been that inflation promotes economic growth; and literally no important actor in Brazilian politics has actually opposed inflation."<sup>11</sup>

The argument about the role of international forces in explaining Brazilian economic policy is also usually made in connection with explanations based on the strength of different domestic social coalitions and their policy preferences. Kaufman notes that much pressure for orthodoxy comes from international financiers and their domestic allies. In Brazil both public and private sector bankers, frequently natural constituents for international creditors, were politically weak. Domestic opponents of

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<sup>9</sup> Fishlow, "A Tale of Two Presidents," p. 86.

<sup>10</sup> Kathryn Sikkink, Ideas and Institutions: Developmentalism in Brazil and Argentina (Ithaca, NY: Cornell University Press, 1991).

<sup>11</sup> Nathan H. Leff, Economic Policymaking and Development in Brazil, 1947-1964 (New York: Wiley, 1968), p. 160.

The first civilian administration since 1964, headed by President Sarney, attempted five heterodox stabilizations between 1986 and 1989: the well-known Cruzado Plan I (February-November, 1986), Cruzado II (November 1986-February 1987), the mid-1987 Bresser Plan, and the January 1989 Summer Plan. The Cruzado I involved a temporary wage and price freeze after an initial 33% wage hike. The Plan included no tax increases or spending cuts and allowed the annual money supply to expand without limits. Cruzado II included more flexible wage and price controls involving price hikes for many state-provided consumer goods such as electricity and for some private consumer goods such as autos. In both Cruzado Plans wage and price freezes ended under industry and labor pressure. When wage and price controls were lifted, inflation returned to its high and growing rate.<sup>7</sup> The Bresser Plan might be considered more orthodox than either of the Cruzado Plans because it allowed prices and the exchange rate to adjust dramatically and called for cooperation with international creditors. Nevertheless one government official involved claims that the plan was rushed out because demand collapsed, "which illustrates how the intention was to expand, not just to stabilize."<sup>8</sup> In any case, Bresser quickly gave up on the plan.

#### Political Explanations

There are five general types of political explanations for macroeconomic policy which might provide insight into the impressive history of failed stabilization in Brazil. These rest on ideology, international pressure, domestic sociopolitical coalitions or interest groups, state institutions and

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<sup>7</sup> Robert R. Kaufman, The Politics of Debt in Argentina, Brazil and Mexico (University of California, Berkeley: Institute of International Studies, 1988) provides a good introduction to the Cruzado Plan history

<sup>8</sup> Interview, Yoshiaki Nakano, August 16, 1990, São Paulo.

Although labor fared relatively poorly under Brazil's inflationary growth policies, until the 1970s at least, it was usually opposed to stabilization, fearing lower nominal and possible real wages. That industry also opposed stabilization is puzzling to some observers. Institutional Investor, a journal of the international financial industry, remarked with apparent incredulity in the early 1980s that "the imperative of continued growth - even at the expense of inflation - is accepted by a surprising number of Brazilian businessmen ..."<sup>16</sup> A leading private banker also stressed the extent to which Brazilian industrialists are "biased against tight monetary policy" and recalls a discussion with World Bank economists who remarked on this quizzically after a meeting with leaders of the Federation of Industries of the State of São Paulo (FIESP) in the early 1980s.<sup>17</sup>

Industrialists, including owners and managers of SOEs, private national enterprises, and multinational corporations (MNCs) in basic, consumer durables, and capital goods industries supported Brazil's "inflation-be-damned" economic policy because it benefitted them.<sup>18</sup> The key to Brazilian

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(Country Economics Department, World Bank, June 1990).

<sup>16</sup> Asheshov and Reich, "Has Delfim Worked His Last Miracle?" p. 177.

<sup>17</sup> Interview, Olavo Setubal, August 17, 1990, São Paulo.

<sup>18</sup> From 1947 SOEs and basic capital-intensive industry in general were the main beneficiaries of government economic policy. Kubitschek's Plano de Metas industrialization drive targeted steel, oil, and autos. The majority of lending from the state development bank, the BNDE, between 1952 and 1962, flowed to the steel and electricity sectors. From 1955 to 1961 the government channeled foreign loans to electricity, steel, auto, railroad and airline, oil, chemical, and metallurgy industries (Leff, Economic Policy-making and Development in Brazil, pp. 40-43). Prior to the mid-1950s, promotion of these basic industries came at the expense of multinationals. However, from 1955 to 1962 MNC investment in basic industries was promoted through favorable exchange regulations, and after the mid-1960s, government policy facilitated MNC domination of consumer durables production.

Domestic capital goods production began to be favored in the late 1960s. In the first capital goods promotion phase both capital and consumer durables producers were winners. The Second National Development Plan,

stabilization. in this case industry and labor were much stronger. Fishlow combines the international and domestic constituency arguments in referring to the 1964-67 stabilization episode. He writes that "by closing down the internal political process and giving virtual carte blanche to Campos and Bulhões, the military government also opted for magnifying the external influence upon domestic economic policy."<sup>12</sup>

Frieden makes one version of the social coalition or domestic constituency argument for the Brazilian case. He argues that Brazil was a case of low class conflict and a strong coalition of "fixed asset holders" -- with industrialists at the center -- opposed to orthodox economic policy. To the extent that the Brazilian government did turn to orthodox policy this was due to the growing power of the financial sector, "liquid asset holders," and the threat of rising class conflict.<sup>13</sup> Fishlow also mentions his underestimation of the power of industrialists opposed to orthodoxy as one of two reasons explaining his earlier mispredictions about Brazil. The strength of the anti-recession constituency, Fishlow suggests, is a corollary to the weakness of the Brazilian state.<sup>14</sup> In the absence of a strong state, policy follows the interest of the strongest domestic constituencies.<sup>15</sup>

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<sup>12</sup>Albert Fishlow, "Some Reflections on Post-1964 Brazilian Economic Policy," in Alfred Stepan (ed.), Authoritarian Brazil (New Haven: Yale University, 1973), p. 83.

<sup>13</sup>Frieden, Jeffrey A., Debt, Development, Democracy: Modern Political Economy and Latin America, 1965-1985 (Princeton: Princeton University Press, 1991).

<sup>14</sup>Fishlow, "A Tale of Two Presidents," pp. 86 and 113 (see note 6).

<sup>15</sup>The constituent base of government is one of three variables through which politics influences macroeconomic policy choice according to Haggard and Kaufman's broad study of middle-income countries. The other two are state institutions and the tenure security of politicians. The results of the Brazilian case study presented here support their findings. Stephan Haggard and Robert Kaufman, "The Political Economy of Inflation and Stabilization In Middle-Income Countries," PRE Working Paper, WPS 444



were supported and protected by the state to varying extent and through diverse mechanisms from 1906 onward. On several occasions, such as during Kubitschek's stabilization program and after the 1964 reforms, they formed a vocal part of the anti-stabilization coalition along with labor and industry. This was because stabilization limited the government's freedom to print money to fund surplus coffee purchases under its price guarantee program.<sup>21</sup>

A fourth category of explanations for the failure of stabilization rests on state institutions and the weakness of those necessary for imposing austerity. These explanations focus on the institutional context of economic decisionmaking and policy implementation. In the Brazilian context the argument is that the lack of a central bank able to effectively control the money supply and/or a central monetary authority with control over public sector expenditure are institutional shortcomings which made orthodoxy impossible to implement. For example, until 1986 the Banco do Brazil (the nation's largest commercial bank) had an open-ended rediscounting facility at the Central Bank with a symbolic 1% annual interest rate. Furthermore, in the 1970s, roughly 50% of all credit came from sources such as the BNDEs, the Banco do Brasil and the housing finance system, and was outside the reach of

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<sup>21</sup>The impact of inflation and stabilization on domestic financiers, and therefore their policy preferences, are less clear than those of labor, industry, or coffee growers. Despite a few periods of high profitability, private financiers' activities and income were restricted, relative to other countries and to their full potential, by the extent of government dominance of credit markets. Before 1964 usury laws severely restricted private financiers' profits. However, they benefitted from the 1964 financial reforms, from financial indexing introduced in the mid-1960s, from speculation and arbitrage between subsidized and free portions of the financial market in the 1970s, and, ironically, from credit restrictions in the early 1980s. Whatever their interests, compared with domestic bankers in some other Latin American countries, Brazilian private-sector financiers' economic base and political influence were limited.

Roughly speaking, peasants and traditional small-scale agricultural enterprises and low-technology, small-scale manufacturers have always been losers in Brazil's economic development.

industrialists' interest in growth even at the cost of inflation lies in two important economic conditions, both stemming from the supply side of industrial activity. First, following a three-factor multi-commodity model of economic growth, Brazil is a relatively land-rich country with a comparative advantage in capital-intensive industry. The relatively low labor-intensity of production lessened industrialists' concern over inflation-driven rising nominal wages.

Second, Brazilian industry through the 1970s and 1980s was very dependent on bank credit, and to some extent on state subsidized credit, as opposed to internal or equity financing.<sup>19</sup> This made industry highly sensitive to cuts in state or private bank credit and/or rising interest rates. Particularly during periods of tight industrial credit, private bankers were targets of industry criticism. The government often chimed in. One observer writes of Antônio Delfim Netto, Agriculture Minister and later Minister of Finance in the General Costa e Silva and Médici governments (1967-74) and Minister of Planning from 1979 to 1985, "if [he] seemed to have a favorite target for attack, then it was the nation's bankers ..."<sup>20</sup>

Although large-scale agricultural exporters, in general, were squeezed by the pre-1964 civilian regime's multiple exchange rate system, coffee exporters

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approved in December 1974, made it apparent that continued emphasis on capital goods production was going to cost the consumer durables sector some government support. This fueled the anti-state industries and a handful of technocrats. Capital goods producers continued to support the government until the late 1970s when it became apparent that the government could not carry out the pro-capital goods sector policies of the Second National Development Plan. The pathbreaking June 1978 manifesto of business opposition was signed by entrepreneurs from the capital goods sector.

<sup>19</sup> There is some debate over the extent of the state credit subsidy. It was at least 2-3% below the hypothetical equilibrium market rate.

<sup>20</sup> Gordon Campbell, Brazil Struggles for Development (London: Charles Knight & Co., 1972), pp. 108-09.

intersection of state and society."<sup>24</sup>

A final set of arguments about the politics of economic policy potentially applicable to the unsuccessful record of orthodoxy in Brazil refers to the often cyclical impact of electoral pressure. According to political business cycle-type arguments, politicians chose economic policies expected to maximize their political power.<sup>25</sup> The more secure their tenure, the more likely politicians will impose orthodoxy that is likely to anger popular sectors whose numbers give them political clout. In authoritarian and semi-authoritarian Brazil we would expect orthodoxy to be undermined whenever the specter of elections arise, or vice versa. Skidmore, for example, suggests that the military government of Castelo Branco could carry out stabilization relying heavily on wage cuts in the 1964 through 1967 period because electoral pressure had been removed.<sup>26</sup> While this may be partially true, cross-national evidence does not clearly support a positive correlation between authoritarian government and successful stabilization.<sup>27</sup> Grindle suggests that even the more subtle form of the argument, positing a relationship between insecurity of tenure and adoption of power maximizing policies by government leaders, should be couched in terms of a domestic constituency approach. Government leaders, Grindle writes, "are not

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<sup>24</sup>Merilee S. Grindle, "The New Political Economy: Positive Economics and Negative Politics," (Harvard Institute for International Development, Harvard University, Development Discussion Paper #311, August 1989), p. 46.

<sup>25</sup>An excellent example of this type of argument applied to Latin America is Barry Ames, Political Survival: Politicians and Public Policy in Latin America (Berkeley: University of California Press, 1987).

<sup>26</sup>Skidmore (1988, p. 59).

<sup>27</sup>Stephan Haggard, Pathways From the Periphery (Ithaca: Cornell University Press, 1990), p. 263. Ironically in the Brazilian case, Delfim Netto correlated authoritarian leadership with inflation. "The military is trained to spend," he said. Interview, August 14, 1990, Rio de Janeiro

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Central Bank policy instruments<sup>22</sup> State financial control institutions were relatively weak because spending bodies had strong supporting constituencies -- among their workers, sometimes the military, and/or other business associates -- which the Ministry of Finance and the Central Bank lacked.

In combination with an argument about the strength of domestic constituencies for and against orthodoxy, the state institutions approach amounts to saying that the state and social forces in favor of orthodoxy were relatively weak in Brazil, while those opposed were relatively strong. Elsewhere one of us refers to this situation as one of a relatively weak "bankers' alliance," defined as a loose interest coalition including both public and private sector financiers and their allies.<sup>23</sup> This type of argument, focusing on cleavages which cut across state and society in a manner consistent with an "iron triangles" approach, has the potential to resolve the apparent contradiction between those arguments focused on domestic social forces, which paint the Brazilian state as weak and those focused on ideology, which depict the Brazilian state as strong. Where there is a weak "bankers' alliance" those state institutions generally in favor of orthodoxy and their potential social constituents, such as bankers, are relatively weak while other coalitions of state and social actors are strong. This argument, combining an emphasis on social constituencies and state institutions and focusing on how they interact, responds neatly to Grindle's call for attention to "what occurs within the state and at the

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<sup>22</sup>John R. Wells, "Brazil and the Post-1973 Crisis in the International Economy," in Rosemary Thorp and Laurence Whitehead (eds.), Inflation and Stabilization in Latin America (London: Macmillan, 1979), p. 249.

<sup>23</sup>Sylvia Maxfield, Governing Capital: International Finance and Mexican Politics (Ithaca: Cornell University Press, 1990).

energy over industry and modestly liberalizing import restrictions.<sup>29</sup>

For reasons discussed below, Delfim Netto replaced Simonsen after only six months and embarked on an expansionary path. This brought Delfim Netto into conflict with Finance Minister Rischbieter who objected to Delfim Netto's further centralization of power and proposal to create a state commodity trading agency. Rischbieter also disagreed publicly with Delfim's optimistic balance of payments projections.<sup>30</sup> Rischbieter resigned; Delfim Netto named Central Bank director Ernane Galvêas to the Finance Ministry and brought Carlos Langoni into government to replace Galvêas at the Central Bank.

From August 1979 to November 1980 Delfim followed an "anti-adjustment" heterodox approach of increasing deficit spending, lowering nominal interest rates, lifting price controls, pre-announcing the rate of exchange rate devaluation after a December 1979 maxi-devaluation, pre-announcing indexation adjustments, introducing a larger indexation increase for the lowest wage levels and replacing annual wage adjustment with biannual adjustments. Real interest rates quickly turned negative and the cruzeiro became overvalued, leading to a decline in savings and strong incentive to import; reserves dwindled and Delfim began to scramble for foreign loans. Meanwhile in public he held to his messianic optimism. "...[T]his revolution that is

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<sup>29</sup> Good summaries of policy from 1979 through the mid-1980s include: Bolivar Lamounier and Alkimar R. Moura, "Economic Policy and Political Opening in Brazil," in Jonathan Hartlyn and Samuel A. Morley (eds.), Latin American Political Economy: Financial Crisis and Political Change (Boulder, CO: Westview Press, 1986), pp. 165-97; Fishlow, "A Tale of Two Presidents," and Edmar L. Bacha, "Vicissitudes of Recent Stabilization Attempts in Brazil and the IMF Alternative," in John Williamson (ed.), IMF Conditionality, pp. 323-41.

<sup>30</sup> In mid-January 1980 Rischbieter predicted a \$4 billion balance of payments deficit when Delfim Netto claimed there would be no deficit. Rischbieter also sent a letter directly to Figueiredo expressing concern about the country's untenable balance of payments situation.

undiscriminating in terms of maximizing their capacity [to be reelected]. They have historically and ideologically determined coalition partners and support groups, as well as clearly defined opponents whose support they will not seek, even in the interests of staying in power."<sup>28</sup>

In the next section we turn to evidence from an in-depth examination of Brazil's attempted stabilization between 1979 and 1984 based on interviews and periodical searches, and to a brief comparison of this case with the others outlined above. This evidence lends support to an explanation of Brazil's stabilization failures based primarily on the relative weakness of state monetary institutions involved in initiating and implementing orthodoxy and the strength of social actors opposed to orthodoxy. Political, particularly electoral, and international pressures influence the ability of domestic coalitions for and against orthodoxy to affect policy. There is little evidence in support of the role of ideology as a primary, independent explanation.

### 3. Economic Reform Efforts 1979 to 1984

The first stabilization initiative in this period began when Mário Henrique Simonsen was appointed Minister of Planning by General Figueiredo in 1979 (having been Minister of Finance for the previous military government) and immediately tried to centralize economic control in that ministry. He aimed to curb federal spending by bringing SOEs under central control, limit money supply growth, and begin to shift the Brazilian economy from import substitution to export-led growth by prioritizing agriculture and

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<sup>28</sup>Grindle, "The New Political Economy," p. 29.

During the months following November 1980 Bacha observes that "Delfim Netto implemented the tightest monetary policy that the country has experienced since ... the turn of the century."<sup>34</sup> In March 1981 and BNDE announced it would make no new industrial loans and might have to cancel existing ones due to government funding cutbacks. In July 1981 President Figueiredo announced the formation of a commission to report on selling SOEs. It was immediately apparent that tight monetary policy and fiscal restraint were not sustainable. The public sector deficit rose and internal debt grew, counteracting monetary restriction.<sup>35</sup>

Desperate for foreign financing to cover the balance of payments shortfall, in October 1981 the Brazilian government presented foreign creditors a plan blending short-term stabilization with long-term structural adjustment. This plan helped Brazil secure a patchwork of foreign loans in late 1981 and early 1982. But reserves were dwindling and international funds dried up completely with the Mexican moratorium of September 1982. In October 1982 the Brazilian government began covert negotiations with the IMF marking the start of the phase of IMF-linked stabilization. A secret deal with the United States for fresh loans took immediately pressure off and allowed the Brazilian government to appear solvent until the November 1982 elections. Immediately following the November elections an IMF mission arrived in Brazil. An agreement was reached in mid-December including reduction of the current account deficit from 5% of GNP in 1982 to 2% in 1983, a 50% cut in the public sector borrowing requirement as a percentage of GDP, strict targets for credit expansion, and the promise of large-scale devaluation. Sealing the deal, the first of seven letters of intent signed

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<sup>34</sup>Bacha, "Vicissitudes," p. 330.

<sup>35</sup>1981 was the first year since 1942 that Brazilian GDP did not grow.

taking place in the real Brazil often goes unnoticed in the big cities." he intoned in early 1980, "where you find these apocalypse predictors, these crimes and abysms that exist only in their own minds, minds dominated by uncertainty, by lack of faith and by their inability to understand the country as it really is."<sup>31</sup>

The hint of change in this expansionary policy first came in March 1980 when Delfim raised the IOF (imposto de operações financeiras) tax imposed on all financial transactions to slow imports and curb credit expansion. In mid-1980 Delfim announced moderate cuts in public expenditure and imposed limits on state and federal development bank credit allocation; rumors of overall credit tightening spread. By September 1980 it was clear that Rischbieter's \$4 billion balance of payment deficit projections from January 1980 had been accurate, if not low. By November 1980 it was evident that inflation for the year would be a century-long record-breaking 110%. Foreign exchange reserves had dwindled from \$8.3 billion in November 1979 to \$4 billion by November 1980.<sup>32</sup>

November 1980 marks the beginning of a period of attempted "voluntary" - as opposed to IMF-related -- stabilization brought on by balance of payments pressure. The new monetary supervision board, the Conselho Monetário Nacional (CMN) which replaced the SUMOC in 1964, met on November 12, 1980 and decided to free interest rates and end pre-announcement of the cruzeiro devaluation and indexation levels.<sup>33</sup> New restrictions on money supply growth, bank loans, SOE capital expenditure and subsidies were announced

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<sup>31</sup>Quoted in Nicholas Asheshov and Cary Reich, "Has Delfim Worked His Last Miracle?" Institutional Investor, August 1980, p. 176.

<sup>32</sup>Bacha, "Vicissitudes," p. 329.

<sup>33</sup>Real interest rates rose from -22% in the second quarter of 1980 to 47% a year later. Ames, Political Survival, p. 207.



"was able to finesse his [domestic] critics with the support of international bankers."<sup>38</sup> A stream of foreign bankers did pass through Brazil in 1981: Citibank's Walter Wriston, David Rockefeller of Chase Manhattan, the Chairman of Chase Manhattan, and a Morgan Stanley banker, to list a few. Volcker visited in mid-1981 for the opening of the new Central Bank headquarters and minced no words about the need for tight fiscal policy as a condition of international financial support. International pressure was also highly visible in 1983 as Figueiredo tried to get Congress to pass his wage legislation. In the midst of congressional debate in October 1983 Volcker is quoted as saying, "I don't want to make predictions nor interfere in Brazil's internal affairs, but I think it would be best for all concerned if the decree was approved."<sup>39</sup> U.S. Treasury Secretary Regan is even more blunt: "If Congress does not want loans from the IMF, the banks and the U.S., it can reject the [IMF] program."<sup>40</sup> In November 1983, with the wage legislation still not approved, IMF Managing Director de Larosiere announced he would not allow talks about standby credits to resume until the wage law had been approved.<sup>41</sup>

#### Industry and Labor Pressure and Political Instability

All who had benefitted from growth-oriented policies opposed stabilization. The only clear winners from the reforms were bankers who in late 1981 admitted that credit controls had allowed them to increase the

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<sup>38</sup> Veja, December 12, 1981, p. 129. Delfim's Minister of Finance Ernane Galvêas and Delfim himself said that international bankers' support was of no help in the internal debate. "They convinced no one." Interviews, August 6, 1990, Rio de Janeiro and August 14, 1990, São Paulo.

<sup>39</sup> Veja, October 5, 1983, p. 100.

<sup>40</sup> Veja, September 28, 1983, p. 26.

<sup>41</sup> Veja, November 2, 1983, p. 99.

by the Brazilians in 1983 and 1984 was ratified on January 6, 1983; a second was signed on February 24, 1983.

Although wage indexation was trimmed by executive decree in January 1983 and a maxi-devaluation was announced in February, Brazil failed its first quarterly IMF review with a higher than promised public sector deficit and greater domestic credit expansion. The IMF suspended disbursements and six months of negotiations ensued. A third letter of intent was signed September 15, 1983 and amended on November 14 because of congressional refusal to ratify administration-proposed wage cuts. Again the Brazilians failed to meet targets; target failures and renegotiations led to signing of new letters of intent on March 3, September 28, and December 20, 1984. The Neves/Sarney government, elected in 1985, ended this cycle by switching to a policy of heterodox shock.

#### Balance of Payments Deficit

International pressure is crucial to understanding why Delfim first chose, and later stuck to, the stabilization course in light of considerable domestic political pressure against it. Delfim's move away from anti-recession policy in November 1980 was forced upon him by "pressure emanating from the international financial system ..." write two Brazilian analysts.<sup>36</sup> Economist Bacha suggests that Delfim overestimated the international banking community's willingness to bankroll his unorthodox policies. "This finally forced him into a complete policy reversal."<sup>37</sup> Delfim, "Veja hypothesizes.

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<sup>36</sup>Lamounier and Moura, "Economic Policy and Political Opening," p. 174.

<sup>37</sup>Bacha, "Vicissitudes," p. 328. Delfim and Galvêas suggested that at least one international pressure in 1979 and 1980 worked in the opposite direction. They claimed that they were ready to begin privatizing but the 1979 oil shock forced them to continue an interventionist strategy. Interviews, August 6, 1990, Rio de Janeiro and August 14, 1990, São Paulo.

nomination to the chosen candidate, and congress, in which ARENA maintained a majority until 1982, voted the candidate to office. National congressional elections were direct but the governing party tried to control them through intimidation and harassment of the opposition. Although virtually excluded from presidential and state-level politics, the opposition MDB enjoyed some freedom and electoral success at the local level.

Distensão began in 1974 when General Geisel allowed all political candidates access to television. The opposition MDB came close to winning a majority in the national congress, increased the number of seats held in the senate and won control of several state legislatures. In these elections the governing party lost the two-thirds majority in congress needed to approve constitutional changes. ARENA dominance was beginning to slowly give way to coalition government. A party reform bill was passed in 1979 which led to name changes for the two existing parties [ARENA became the PSD (Partido Social Democrático) and the MDB became the PMDB] and opened electoral competition to any other party that met certain minimal requirements. Competition between the parties for seats in the 1982 national congressional elections began immediately.

In this electoral context, the governing party's goal of creating a democracy in which it held unquestioned sway made it sensitive to major interest group opposition to government economic policies. Figueiredo, elected president in 1979, had two main political problems. He had to hold the military "linha duristas," who were opposed to political opening, at bay and he had to maintain as much PSD popularity as possible in order to guarantee the PSDs victory in the upcoming elections. Labor support was important to electoral victory; industry support was needed for electoral success and, perhaps more importantly, to bolster the government against

spread between deposit and loan rates and increase profits.<sup>42</sup> There was a clear split within the business community between financiers and industrialists. In addition to financiers, exporters may have benefitted from stabilization but there is little evidence for their active support for it in contemporary accounts. Labor was also vehemently opposed to stabilization. The economic context is one of recession in which labor and industrialists in consumer durables and capital goods sectors were hurt.

Labor and industry pressure were exercised through direct and indirect channels. It had added weight in the context of the gradual political opening (distensão or abertura) which began in 1974 and was well underway by 1979 as maneuvering for position in the 1982 direct elections began. To fully understand the weight of labor and industry pressure on political leaders we need to briefly review the history of the Brazilian party system.

The military government which took power in a 1964 coup reformed the Brazilian party system by decree in 1965. The Second Institutional Act abolished all existing political parties and the Supplementary Act No. 4 laid the basis for a weak two-party system which lasted until 1979. ARENA (Aliança Nacional Revadora - National Renovation Alliance) was the pro-government party controlled by the military; the opposition was grouped in the MDB (Movimento Democrático Brasileiro - Brazilian Democratic Movement). Presidential succession, every five years unless interrupted by illness, was determined by intra-military debate where the main division was between "castelistas" (moderates associated with Castelo Branco, president from 1964 to 1968) and "linha duristas" (hardliners). ARENA gave a rubber stamp

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<sup>42</sup> Latin America Regional Report, August 7, 1981, p. 4; and Veja, June 17, 1981, p. 114. In 1983 Banco Itau reported its earnings in 1983 were up 350% over the previous year (see Veja, March 28, 1983, p. 104). The stock market boomed because compulsory investment rules for pension plans gave it a guaranteed source of funds.

associations for machine tools, electrical and heavy industry.<sup>46</sup>

Dye and de Souza e Silva conclude that the "dominant pattern" was "close sectoral integration of the most strategic segments of capital with the state, in a technocratic mode that insures the former's active participation and influence over policy."<sup>47</sup> Extensive interviews conducted for two Ph.D. dissertations substantiate the view that industrialists used social ties and personal contacts to influence government both within and outside the context of bureaucratic rings.<sup>48</sup> An example of these ties and how they jeopardized stabilization efforts is found in the relationship between Luis Vidigal, president of FIESP in the 1980s, and Planning Minister Delfim Netto. "Often I would publicly pretend I had lost to him on a specific issue," Vidigal said, "but he would concede in private (for example, on sustaining BNDE spending)."<sup>49</sup>

Industry opposition to stabilization in the 1979 to 1984 period was great. Industrialists blamed Simonsen and the private bankers for high interest rates, which in industrialists' minds were the result of tight monetary policy and private bank gouging. According to one prominent private banker, Simonsen was ousted by industrialists, by a business community biased against tight monetary policy.<sup>50</sup> Bankers, he suggested, supported Simonsen

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<sup>46</sup> Carlos Lafer, O Sistema Político Brasileiro (São Paulo: Editora Perspectiva, 1975), pp. 113-14.

<sup>47</sup> Dye and de Souza e Silva, "A Perspective on the Brazilian State," p. 91.

<sup>48</sup> Leigh Ann Payne, "The Political Attitudes and Behavior of Brazilian Industrial Elites," (Ph.D. diss., Yale University, 1990); and Renato Raul Boschi, "National Industrial Elites and the State in Post-1964 Brazil," (Ph.D. diss., University of Michigan, 1978).

<sup>49</sup> Interview, Luis Eulalio de Bueno vidigal Filho, August 15, 1990, São Paulo.

<sup>50</sup> Interview, Olavo Setubal, August 17, 1990, São Paulo.

hardline military pressure.<sup>43</sup> Although labor and business were organized in semi-corporatist fashion, business had a closer more influential relationship with government actors exercised through non-corporatist channels.<sup>44</sup> Cardoso writes of "bureaucratic rings" or "spheres" which were "circles of information and pressure linking private entrepreneurs in those particular sectors of capital favored by the Brazilian economic model to the occupants of bureaucratic posts." Through them the business community dug itself "into defensive positions in the state system from which it could defend its economic interests."<sup>45</sup> Lager provides a description of the "bureaucratic ring" around the foreign trade office of the Banco do Brasil, CACEX, linking it to representative of major private

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<sup>43</sup> Although supportive of the military government, industrialists had been at the forefront of popular demands for political opening in part because they hoped to gain more control over economic policymaking. See Sylvia Maxfield, "National Business, Debt-Led Growth, and Political Transition in Latin America," in Barbara Stallings and Robert Kaufman (eds.), Debt and Democracy in Latin America (Boulder, CO: Westview, 1989); Fernando H. Cardoso, "Entrepreneurs and the Transition Process: The Brazilian Case," in Guillermo O'Donnell, Philippe C. Schmitter, and Laurence Whitehead (eds.), Transitions From Authoritarian Rule (Baltimore: Johns Hopkins University Press, 1986).

<sup>44</sup> The definitive book on Brazilian corporatism is Philippe C. Schmitter, Interest Conflict and Political Change in Brazil (Stanford: Stanford University Press, 1971). Research conducted in the 1960s led Schmitter to conclude that corporatism was breaking down and that consultation between government technocrats and new industry associations and individual entrepreneurs was growing. Skidmore and Dreifuss provide evidence that several non-corporatist business associations played an important role in organizing opposition to the goulart government in the early 1960s and influenced economic policymaking during the Castelo Branco regime. Skidmore, The Politics of Military Rule in Brazil, p. 23 and Rene Dreifuss, 1964: A Conquista do Estado (Rio de Janeiro: Vozes, 1986).

<sup>45</sup> Fernando Henrique Cardoso, "Entrepreneurs and the Transition Process: The Brazilian Case," in p. 140 and David Dye and Carlos Eduardo de Souza e Silva, "A Perspective on the Brazilian State," Latin American Research Review, 14, 2 (1978), p. 89.

At the same time as FIESP was becoming more active in opposing the government, leading industrialists began meeting with opposition political figures. In October 1980 industrialists supported the Figueiredo government's policy of political opening against hardline military opposition but still expressed public criticism of Delfim's nascent anti-inflation policy. Shortly thereafter Delfim began inviting key business people to Brasilia for discussion about economic policy. Nevertheless, after the November stabilization measures were announced, leaders of the National Industrial Confederation, Brazilian Export Association and National Chambers of Commerce Federation issued a thinly veiled demand for more business influence, a guaranteed veto at least, over economic policy.<sup>54</sup> In January 1981 several generals and businessmen signed a manifesto criticizing the government's economic policy and calling for defense of national industries. In March 1981 FIESP issued a harsh press statement criticizing the government and the banking community for high interest rates which were pushing many industrialists toward bankruptcy.<sup>55</sup> One business periodical survey in mid-1981 found that 41% of business people interviewed considered Delfim a "very bad" Minister of Planning. Another survey found 83% believed the IMF

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<sup>54</sup>Figueiredo should "democratize" economic policy, they said. Veja, December 17, 1980, p. 108.

<sup>55</sup>This statement originated with a particularly radical group within FIESP whom the organization's president, Vidigal, was unwilling/unable to restrain. Vidigal himself had recently been angered by a government decision to import railroad train components at a time when the domestic industry, in which Vidigal had a stake, suffered with 40% idle capacity. Signatories included Antônio Ermirio de Moraes (Votorantim Group), Claudio Bardella (Bardella Group), Jose Michel (Metal Leve) and Luis Carlos Bresser Pereira (director of the Pão de Açúcar Group and a well-known economist). Latin America Weekly Report, January 16, 1981, p. 7.

but kept a lower political profile than industrialists. A prominent Brazilian economist notes that "except for the financial sector, everyone that counted in the country was quite happy to see Simonsen's policies knocked out by Delfim."<sup>51</sup> Hundreds of São Paulo industrialists travelled to Brasilia for Delfim's inauguration. Certainly his popularity among industrialists and willingness to reverse Simonsen's policies helped him win the job as the Figueiredo administration's second planning minister.<sup>52</sup>

Ironically, as soon as he began to even hint at adopting moderately orthodox stabilization measures in mid-1980, Delfim -- although he had a large reservoir of industry support -- began to face the same criticisms Simonsen had confronted. When Delfim reduced the subsidy implicit in BNDE loans, the influential São Paulo industrialists association, FIESP, criticized him. They argued that his new stabilization policy ran contrary to his frequent statement while "campaigning" for the ministership of planning in 1979 that "growth is the remedy for all Brazil's ills." The campaign for the presidency of FIESP in summer 1980 reflected business's growing concern that Delfim would return to Simonsen's tight monetary policy. Luis de Bueno Vidigal, who won the elections, was one of two challengers to the 14-year incumbent running on a platform stating that FIESP should take a more active role in promoting the interests of São Paulo industrialists before the government.<sup>53</sup>

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<sup>51</sup>Bacha, "Vicissitudes," p. 336

<sup>52</sup>Of course, in a general sense Delfim's popularity was due to his association with the 1968-73 industrial boom. Fishlow, "A Tale of Two Presidents," and Dionisio Dias Carneiro, "Long-Run Adjustment, the Debt Crisis and the Changing Role of Stabilization Policies in the Recent Brazilian Experience," in Rosemary Thorp and Laurence Whitehead (eds.), Latin American Debt and the Adjustment Crisis (Pittsburgh: University of Pittsburgh Press, 1987), p. 36.

<sup>53</sup>FIESP has over 100 sectoral affiliates, including among the largest ABDIB for capital goods producers, ABINEE for electronic and electrical goods producers and ABIMAQ for machinery producers.



political opening and the electoral success of the PSD. Labor opposition also imperiled monetary restriction and government spending because strikes for higher wages, even if forcefully repressed, helped galvanize support for opposition political parties throughout the 1979 to 1984 stabilization attempts. Between January and October 1979 Simonsen faced more than 400 strikes, including a long confrontation with the politically powerful metalworkers union.<sup>61</sup> In September, 1980, as the balance of payments situation worsened, Delfim proposed abolishing the biannual wage adjustment for those earning more than seven times the minimum wage, only to back down in the face of strong opposition from labor and industry and from within the governing party, the PSD. Thousands of strikes in São Paulo and other cities against stabilization and the IMF dot news reports from 1982 through 1984.<sup>62</sup> For example, employees of SOEs marched in June 1982 to protest austerity and public sector budget cuts carrying placards saying "Down with Delfim!"<sup>63</sup> São Paulo metalworkers rallied against IMF-imposed policies in March 1983.<sup>64</sup> One of the largest strikes was a university employees strike in July 1984.<sup>65</sup> Due to these high levels of labor mobilization, efforts to cut wages, a sine quo non of the IMF agreements were repeatedly befouled by Congress in 1983 and 1984. In May 1983 Figueiredo was forced to backtrack on a cut in wage indexation promised in the January agreement with the IMF

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<sup>61</sup>Skidmore, The Politics of Military Rule, p. 213.

<sup>62</sup>Eul-Soo Pang, "Debt, Adjustment and Democratic Cacophony in Brazil" in Barbara Stallings and Robert Kaufman (eds.), Debt and Democracy in Latin America (Boulder, CO: Westview, 1989), p. 130.

<sup>63</sup>IMF is abbreviated FMI in Portuguese; the placards changed the spelling of Delfim's name to create a pun. Veja, June 22, 1982, pp. 100.

<sup>64</sup>Veja, March 2, 1983, p. 68.

<sup>65</sup>Veja, July 18, 1984, pp. 20-21.

should relax its conditionality.<sup>56</sup> In 1981 business opposition to stabilization policies had come largely from isolated industrial sectors hurt by government cutbacks. By 1981 tight monetary policy led to generalized industry opposition to the government and to the banks, once again perceived as benefitting from credit restrictions.<sup>57</sup>

Slight loosening in 1982 as elections approached appears to have lessened industry complaints. However, once the first IMF letter of intent was signed after the November elections, opposition became vocal again. IN August 1983 Delfim postponed his return from a Paris meeting to avoid attending the annual business forum sponsored by Gazeta Mercantil at which industrialists rejected recession, arguing that tight monetary policy hurts consumers and producers.<sup>58</sup> Industrialists demanded that the government cut interest rates, not wages, arguing that the latter would shrink the already severely restricted domestic market.<sup>59</sup> After the government signed a third IMF letter of intent in September, industry leaders ridiculed it, awarding the latter a "Nobel prize for alchemy".<sup>60</sup>

Tight monetary policy and fiscal stringency were jeopardized by industry opposition and the importance of industry support for the government's

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<sup>56</sup>The first was a survey by Exame. The second was a two-stage survey by Gazeta Mercantil of 15,000 business people asked to name representative business leaders. The opinion survey was of the 106 leaders most frequently named. Latin America Weekly Report, ???; Latin America Regional Report, Mar. 26, 1981, p. 1.

<sup>57</sup>Veja, June 17, 1981, p. 114. Interview, Luis Vidigal, August 1-1990, São Paulo.

<sup>58</sup>Veja, August 31, 1983, pp. 3-6 and 36.

<sup>59</sup>Paul Singer, "Democracy and Inflation, in the Light of the Brazilian Experience," in William Canak (ed.), Lost Promises: Debt, Austerity and Development in Latin America (Boulder, CO: Westview, 1989), p. 37.

<sup>60</sup>Veja, September 28, 1983, p. 102.

negotiate with the IMF until after the November 15, 1982 congressional elections. The PDS feared that the commitment to stabilization implied by negotiations with the IMF would jeopardize their congressional candidates' electoral chances. Delfim is quoted on November 17 as saying, "I needed to get Brazil to the 15th of November solvent, and we arrived."<sup>70</sup> "My major problem," he said in retrospect, "was to hold on until the November elections."<sup>71</sup> After that, in 1983 and 1984, Congress and the imminent presidential elections hindered policymaking.

In the November 1982 elections, the governing party, the PSD lost its majority in the federal congress. After this the re-election concerns of congress people obstructed passage of executive branch wage decrees. For example, the IMF and other foreign creditors accepted Brazil's third letter of intent without knowing whether Congress would approve the wage legislation involved. Delfim threatened there would have to be gas rationing if the bill did not pass. It did not. In retrospect, Delfim says Congress failed to understand the need for austerity policy.<sup>72</sup> Another former official who joined the government in 1983 echoed this feeling. "Congress was the central obstacle," he said.<sup>73</sup> Commenting on Delfim's 1983 and

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<sup>70</sup> Veja, November 17, 1980, p. 140.

<sup>71</sup> Gazeta Mercantil, February 28, 1985, p. 3. Bacha and Malan claim that the Brazilian government asked U.S. President Reagan to postpone a trip to Brasilia until after the elections in order to avoid political fallout. Edmar L. Bacha and Pedro S. Malan, "Brazil's Debt: From the Miracle to the Fund," in Alfred Stepan (ed.), Democratizing Brazil (Oxford: Oxford University Press, 1989), p. 132.

<sup>72</sup> Interview, August 14, 1990. São Paulo.

<sup>73</sup> Interview, Affonso Pastore, August 15, 1990, São Paulo. In fairness to Brazilian legislators, in the context of political opening and public pressure for direct elections in the direitas já campaign, Congresspeople were under considerable political pressure which limited their maneuverability if they hoped to remain in office. See the interview with a congressional member in Veja, May 2, 1984, pp. 5-8.

because Congress would not ratify it. Under strong IMF pressure in July 1983 Figueiredo announced cuts similar to those decreed earlier in the year. The move was highly unpopular and the government had "to declare a state of emergency in Brasilia during the congressional debate over the bill in order to prevent massive demonstrations ..."<sup>66</sup>

The government's economic and political strategies were clearly at odds. Stabilization engendered labor and industry opposition which translated into political vulnerability for the ruling party. Many who were government officials during the stabilization efforts cite political pressures on the FSD as policy constraints. Ernane Galvêas, who replaced Rischbieter as Minister of Finance under Delfim in early 1980, says that political pressure emanating from the return of exiled left leaders and the risk that they could ride economically induced social problems to power mitigated against resorting to orthodox stabilization policies in 1980.<sup>67</sup> A former high-level Central Bank official claims he was able to pursue a tight monetary policy until July 1981 when spending for the November 1982 elections began.<sup>68</sup> Tight monetary and fiscal policy were jeopardized as the governing party began its campaign spending. When the CMN announced a loosening of credit in May 1982, Delfim proclaimed, "It is time to grant the consumer some relief." FIESP issued an approving statement.<sup>69</sup>

Although covert negotiations with the IMF began in October 1982, marking the beginning of the IMF-directed phase of the 1979 to 1984 efforts at stabilization, Delfim says that he felt that he could not publicly

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<sup>66</sup>Skidmore, The Politics of Military Rule, pp. 226-27.

<sup>67</sup>Interview, August 6, 1990, Rio de Janeiro.

<sup>68</sup>Interview, Carlos Haddad, August 14, 1990, São Paulo.

<sup>69</sup>Veja, May 5, 1982, pp. 128-29.

the states, and the so-called união federal budget. Even after an agency was created in 1979 to bring SOE expenditure under central control -- the Secretaria de Controle das Empresas Estatais (SEST) -- little progress was made because individual SOE presidents had independent political ties to economic and bureaucratic interest groups, and employees and suppliers adept at lobbying SEST. SEST could barely keep track of SOE spending, much less control it. Veja wrote in 1982, that the "sacred monsters of state-entrepreneurship, the parastatals, never complied with any budget."<sup>77</sup> For example, in 1984 Petrobras, the state oil company, gave its 50,000 employees a one-time wage increase in direct violation of wage legislation.<sup>78</sup>

Beyond the Banco do Brasil and the SOEs other institutions had political and institutional independence which afforded them financial autonomy. The BNDES had independent control of industrial policy instruments and was powerful enough that in 1982 the head of Internal Revenue was forced to apologize for a ruling cutting BNDES credit; Dornelles stated publicly, "it is not my job to give orders to BNDES."<sup>79</sup> Even departments

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<sup>77</sup> Veja, January 13, 1982, p. 79.

<sup>78</sup> Veja, May 30, 1984, p. 100.

<sup>79</sup> Veja, April 7, 1982, p. 115. Of course there were limits to the independence of the BNDES and other agencies and ministries. BNDES president, Luis Sande, for example, was fired when he clashed directly with Delfim in 1983. CACEX director Moreira lost a battle with Delfim in 1982 and resigned under pressure. In other cases Delfim was outmaneuvered. When the Central Bank's director of internal debt clashed with Delfim and resigned in January 1983, Delfim tried to impose a successor over Central Bank head Langoni's wishes and Langoni simply abolished the position (interview, Carlos Haddad, August 14, 1990, São Paulo).

Another example of lack of central financial control related to the BNDES concerns the Finsocial program created in July 1982. This was effectively a 0.5% tax on business meant to finance BNDES social spending. Reportedly only half of its budget went to earmarked social programs while the other half financed the general government deficit (Veja, October 24, 1984, p. 124).

BNDES financing comes primarily from mandatory contributions to the PIS-PASEP employee insurance funds

1984 failures. the same former government official noted that the basic "problem was the weak legitimacy of a lame-duck authoritarian regime."<sup>74</sup>

Summing up this explanation for the failure of orthodoxy in this period, former Central Bank director Carlos Langoni points to the resistance of organized social groups such as labor and FIESP, especially in the context of political opening.<sup>75</sup>

#### Weak Central Monetary and Fiscal Control

The powerlessness of national financial and monetary control institutions is the explanation for failure of the 1979-84 stabilization efforts most cited by government officials involved. Coherent stabilization policies were hard to formulate and extremely difficult to implement for several institutional reasons. The government lacked a monetary authority capable of regulating the money supply, and did not have centralized data on public finances and monetary expansion nor a centralized fiscal authority with control over all public spending.

The details of the institutional lacunae are numerous. Law GB-588 mandated that the nation's largest commercial bank, the Banco do Brasil, cover the foreign debts of SOEs. The Banco do Brasil, a majority publicly-owned leviathan with its own ties to the military and militant employees, had an automatic overdraft account with the Central Bank known as the conta de movimento. As Banco do Brasil president, Rischbieter said, "I had to resist dictatorial temptations."<sup>76</sup> Another problem was that at least four budgets existed, a monetary budget, a social security budget, a budget for

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<sup>74</sup> Ibid.

<sup>75</sup> Interview, August 10, 1990. Rio de Janeiro.

<sup>76</sup> Interview, August 9, 1990. Curitiba (by telephone).

the lack of centralized fiscal control, insufficient Central Bank autonomy, and recalls the impression made by Sargent's 1980 seminar in Rio which highlighted how creating an independent central bank was central to ending all hyperinflations of the 20th century.<sup>83</sup> Central Bank director Langoni resigned in September 1983 citing institutional problems, namely, lack of Central Bank monetary control and authority. It was virtually impossible he claimed, despite being the first to publish the previously secret monetary budget in 1982, to calculate the government deficit.<sup>84</sup> Simonsen spoke of the need for a central bank not committed primarily "to covering [financial] holes."<sup>85</sup> Delfim noted that having an independent Central Bank would have helped implement stabilization.<sup>86</sup> Central Bank official Claudio Haddad says that the autonomous role of the Banco do Brasil was a problem, as was the independent spending authority of the CMN and BNDES.<sup>87</sup>

#### Generalizing From the 1979-84 Stabilization Failure

Detailed study of the 1979-84 reform period suggests the primary importance of two variables: state institutions and the governing party's political vulnerability to domestic anti-stabilization constituencies. Because international creditors' potential domestic allies were limited by relatively weak financial control institutions, general international conditions put stabilization on the agenda but could not ensure

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<sup>83</sup> Interview, August 7, 1990, Rio de Janeiro.

<sup>84</sup> Interview, August 10, 1990, Rio de Janeiro. The immediate issue leading to Langoni's resignation was an IMF Letter of Intent which he felt was unrealistic.

<sup>85</sup> Veja, November 7, 1984, pp. 116-17.

<sup>86</sup> Interview, August 14, 1990, São Paulo.

<sup>87</sup> Interview, August 14, 1990, São Paulo.

within the Banco do Brasil had certain independence. Rischbieter reports with frustration that even though directors of the Banco do Brasil and its foreign trade office, CACEX, were appointed directly by the president, CACEX "made policy on its own; this added up to complete lack of organization within the government."<sup>80</sup>

State governments were also fiscally autonomous thanks to existence of state banks with virtually automatic funding from the central government. Finally the CMN, which was designed to be a single overarching monetary authority, was largely a "ministerial assembly with elements of corporative representation."<sup>81</sup> It was too politicized to function well as a central monetary authority.<sup>82</sup>

Former government officials interviewed about stabilization failures between 1979 and 1984 frequently cited decentralized monetary and fiscal control as a problem. Former Central Bank official José Júlio Senna stressed

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<sup>80</sup> Interview, August 9, 1990, Curitiba (by telephone). In fact, for a long time the head of the Banco do Brasil was "indicated" by agro-exporters from the northeast.

<sup>81</sup> Interview, Carlos Langoni, August 10, 1990, Rio de Janeiro. Historically the CMN played more of a role in allocating credit and coordinating public investment programs than in controlling monetary expansion (José Roberto Mendonça de Barros and Douglas Graham, "The Brazilian Economic Miracle Revisited," Latin American Research Review, 13: 2 (1989), p. 27). In the 1980s the CMN was headed by Minister of Finance and made up of four other (including the BNDE, the Banco do Brasil and the Central Bank), and eight private ("experts") appointed by the minister of finance. Several observers have claimed that business participation made the CMN a cumbersome, "politicized" institution. Disputes within the CMN have occasionally become public as one or the other business member feels pushed out. Abilio dos Santos Diniz, for example, left the CMN in 1984 in a dispute with Finance Minister Galveas and Vidigal left in 1987 when he differed with Finance Minister Furlan. (On Diniz leaving see: Veja, April 18, 1984, pp. 3 and 6.)

<sup>82</sup> Interview, Luis Vidigal, August 15, 1990, São Paulo. Interview, Carlos Hadda, August 14, 1990, São Paulo. Howard S. Ellis, "Corrective Inflation in Brazil, 1964-66," in Howard S. Ellis and Lincoln Gordon (eds.), The Economy of Brazil (Los Angeles: University of California Press, 1969), p. ???.



control inflation "was weakened by the lack of an effective, independent and nonpolitical body entrusted with the supervision of the banking system and the coordination of monetary and credit policy."<sup>90</sup> Unfortunately such institutional change would have taken more time than Finance Minister Aranha or President Vargas had before the political and economic situation became unmanageable.

To understand the roots of this political time pressure we must briefly review the history of the Vargas government. Vargas, who had ruled Brazil under a dictatorship from 1937 to 1945, won the presidency in free elections in 1950 and was determined to prove himself a successful democratic leader. Most importantly this meant trying to avoid giving the military a temptation to intervene. The Brazilian party system was still very weak. Vargas was elected in 1950 for a normal five-year term with a 49% plurality and help from an extremely diverse coalition including the rural elite-based PSD, the labor party (PTB, Partido Trabalhista Brasileiro), (PSP, Partido Social Progressista) personal machine of populist politician Adhemar), and even a minority group within the União Democrática Nacional (UDN), a party linked to one army faction and united largely around opposition to Vargas' dictatorial populism. The UDN tried to block Vargas' inauguration on a constitutional technicality, but a military tribunal rejected the appeal. No party had a majority in congress and most were represented in Vargas' cabinet. The military was a neutral force, at best. Vargas pursued a strategy of reconciliation trying to win full UDN support. This merely succeeded in alienating the PTB and other left-leaning allies. He tried to combine nationalism and orthodoxy in his economic policy in order to

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<sup>90</sup> Joint Brazil-U.S. Economic Development Commission, The Development of Brazil (Washington: Institute of Inter-American Affairs, Foreign Operations Administration, 1954), p. 42.

implementation.<sup>88</sup> Weak financial control institutions and the political vulnerability of government leaders to anti-stabilization interest groups appear to play a role in virtually every case of failed implementation of stabilization in Brazilian economic history both before and after the 1979 and 1984 period.

A brief review of the causes of failure in the stabilization attempts outlined in Section 2 supports this claim. IN June 1953 Vargas's first finance minister, Horacio Lafer, abandoned his stabilization effort and resigned because he could not gain the cooperation of the president of the Banco do Brasil.<sup>89</sup> His replacement, Oswaldo Aranha, attempted stabilization, hoping to include a reorganization of the finance ministry "in order to increase central direction" in his efforts. This was in keeping with the Joint U.S.-Brazilian Commission which had concluded that Brazil's ability to

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<sup>88</sup> Reformers themselves did not see ideology playing a strong role in explaining the failure of orthodoxy. This is consistent with Schneider's in-depth study of economic policymaking in Brazil. He notes a "developmentalist mentality" which is goal-oriented, i.e., pragmatic more than ideological. This is the basis, he argues, for the lack of coherence of liberalizing forces. "Cutting any one program or firm pits a broad, diffuse coalition based on principles against a small group of intense material interests" who tend to win out. Ben Ross Schneider, "Framing the State: Economic Policy and Political Representation in Post-Authoritarian Brazil," in John D. Wirth and Edson de Oliveira Nunes (eds.), State and Society in Brazil: continuity and Change (Boulder, CO: Westview Press, 1987), p. 224. The relative unimportance of ideology is evident in Delfim's offhand statement that all Brazilian economists, himself included, have shared the ideology of Eugenio Gudin who was an outspoken proponent of orthodoxy and executive director of the IMF. Needless to say, Delfim's policies in the 1979-84 period, a mixture of Southern Cone international monetarism, standard IMF fare, and Brazilian interventionism, were considerably more heterodox than Gudin would have liked. Skidmore, Politics in Brazil, pp. 88 and 159; Celso Furtado, No to Recession and Unemployment (London: Third World Foundation, 1984). The role of ideology in explaining the policies described above is at best ambiguous. Further cross-national and cross-temporal research would be necessary in order to make a definitive statement.

<sup>89</sup> Skidmore, The Politics of Brazil, cites Lafer's resignation speech in O Estado de São Paulo, June 19, 1953.



maintain the support of as many classes or sectors as possible. But this strategy could not control rising inflation. To buy political cover for a stabilization program Vargas appointed Goulart, a politician with a reputation for collaborating with communists and militant labor leaders, and his labor minister in June 1953. By January 1954 rising prices led workers to the streets to demand an increase in the minimum wage. Goulart recommended a 100% increase and did little to restrain militant labor activity. This engendered a rebellion from junior army officers protesting their low wages and articulating widespread middle class resentment of the working class. This emboldened the UDN. Vargas dismissed Goulart but eventually decided on the wage increase anyway, hoping that labor support would pull him out of this political tailspin. The military, supported by the UDN, demanded Vargas' resignation and he responded with suicide.

Turning from the first of Brazil's failed post-World War II stabilization efforts to the second, led by Eugênio Gudin during the administration of Vargas' vice-president and successor, Café Filho, we also see the role of weak state financial control and politicians' tenure insecurity. Skidmore notes that "the Finance Ministry simply did not have under its control total government expenditure (there were semi-autonomous government agencies whose budgets could not be cut back by the Finance Ministry at short notice).<sup>91</sup> Skidmore also suggested that Café Filho's 1954-55 stabilization effort failed in part because he perceived himself as a caretaker president with too little time or authority to carry out large-scale policy changes.<sup>92</sup>

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<sup>91</sup>Skidmore, The Politics of Brazil, p. 161.

<sup>92</sup>Skidmore, Politics in Brazil, p. 161.

unfair."<sup>95</sup> Insecurity in his position as president, as he faced mounting opposition due -- among other things -- to his stabilization policies, led Quadros to abandon them and resign in 1961. Quadros had run in the 1960 elections with a UDN endorsement but tried to distance himself from the party as much as possible both during the campaign and in office. Like his predecessors he pursued a political strategy of trying to please all and alienate none. He ran as an outsider with an "anti-politician", "anti-corruption", "anti-inefficiency" stance. This left him without an organized political base when he came to power. Having included the need to curb inflation and the balance of payments deficit in order to preserve national economic autonomy in his campaign platform, Quadros felt he could political-ly afford quick introduction of a stabilization program.<sup>96</sup> Furthermore, his foreign policy, closely aligned with Cuba, provided him political cover for the stabilization program even if it raised concern among right-wing anti-communists. Nonetheless, traditional politicians were uneasy about his threats to investigate political corruption, government workers were leery of his plans to increase bureaucratic efficiency, and labor and industry opposed his stabilization plan. Before all this opposition could crystalize, Quadros resigned.

Industry, nationalist intellectuals, and trade unions also immediately mobilized against Goulart's stabilization in 1963. The National Confederation of Industry argued that credit restraint was catastrophic for industry

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<sup>95</sup>Skidmore, Politics in Brazil, p. 195.

<sup>96</sup>Quadros' talk of controlling inflation and the balance of payments deficit was part of his "anti-establishment" rhetoric. He ran a "throw-the-bastards-out" campaign that was ideologically opaque and appealed to no identifiable interest groups other than political outsiders. There was no obvious "anti-inflation" constituency to appeal to, in part because the most likely center of a stabilization coalition, private bankers, were politically and economically weak.

Under Kubitschek in 1959, during Brazil's third post-World War II stabilization episode, the president of the Banco do Brasil refused to cut industrial credit, severely jeopardizing the finance minister's ability to implement his stabilization plans. Furthermore, credit restrictions met with protest from São Paulo businessmen and coffee growers.<sup>93</sup> Kubitschek had been elected in 1955 with only a 36% plurality and support from a PSD-PTB alliance. The UDN tried to block his inauguration as they had Vargas', but failed. The military stages a "preventive" coup to ensure Kubitschek could take office. Like Vargas, Kubitschek tried to campaign and govern without relying on any single party or movement. He endeavored to please as many as possible in order to preserve his reputation and possibly attain re-election in 1965 after a constitutionally mandated term out of office. He began stabilization a little over halfway through his term, calculating that he had established his popularity and could complete the stabilization effort with sufficient time to repair any political damage caused by it before leaving office.<sup>94</sup> But opposition from labor and industry was greater than he anticipated. Kubitschek felt forced to break off negotiations with the IMF in order to preserve his popularity and maximize his re-election potential.

Again under Quadros, government agencies and the "quasi-official" Banco do Brasil would not cooperate with stabilization and exceeded monetary targets set by the minister of finance. Again in 1961 there "were the inevitable complaints from businessmen, workers and consumers," Skidmore writes, "all of whom, although they did not disapprove of stabilization in principle, thought the particular sacrifices imposed on them were

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<sup>93</sup> Marshall et al., "IMF Conditionality," p. 299.

<sup>94</sup> Skidmore, Politics in Brazil, p. 175.

stabilization in 1964-67 had less impact on politicians'/policymakers' actions because they were relatively invulnerable to political pressures which could turn them or their party out of office. Shortly after the 1964 coup, the UDN-controlled Congress approved a constitutional amendment postponing presidential elections for one year in order to give president Castelo Branco's economic team more time to make the unpopular stabilization measures work. When opposition to the regime's economic policy translated into the election of populist politicians in the October 1965 gubernatorial races, the military responded with the Second Institutional Act which made those and presidential elections indirect.

Nevertheless contenders for political office under the military regime were still vulnerable to interest group pressure. The military regime was committed to maintaining the veneer of democratic legitimacy. They chose presidential candidates partly on the basis of how convincing their claims of popular appeal were. Even though the opposition boycotted the 1966 elections, for example, Costa e Silva campaigned throughout the country. According to some analysts, the switch away from austerity by new military leadership in 1967 and 1968 reflected growing conflict between the military and industry, and thus also within the military, over orthodox economic policy.<sup>99</sup> The policy change also no doubt reflected diminished inflation.

Skipping to the post-1984 era, Lourdes de Sola argues that the Cruzado I stabilization took a heterodox form in order to "harmonize austerity with the

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<sup>99</sup>Hugo Presgrave de A. Faria, "Macroeconomic Policymaking in a Crisis Environment: Brazil's Cruzado Plan and Beyond," in Julyam M. Chacel, Pamela S. Falt, and David V. Fleischer (eds.), Brazil's Economic and Political Future (Boulder, CO: Westview Press, 1988), p. 43.

Automobile manufacturers were especially vocal critics of the Dantas-Furtado Plan.<sup>97</sup> Labor disputes rose from 741 in 1962 to over 1,000 in 1963.<sup>98</sup> Goulart's succession after Quadros' surprising resignation, although clearly specified in the constitution, generated a political crisis. He was installed after a ten-day interregnum during which pro- and anti-Goulart military factions debated heatedly. The pro-Goulart forces only barely won out. Goulart's position with the military made it difficult for him to refuse military wage demands. He also had to continually prove his popularity; this also made it difficult to stick to a stabilization policy which engendered labor and industry opposition.

The 1964 reforms also met with business and labor opposition. Opposition was expressed in newspapers including Útima Hora, Tribuna de Imprensa, Correio de Manhã, Desenvolvimento e Conjuntura, and the journal of the National Industry Confederation. For example, right-wing journalist Carlos Lacerda started to criticize the regime's economic policy in his daily newspaper column in 1965 and in 1966 he joined with two former enemies, populist politicians Kubitschek and Goulart, in an organization pursuing both higher wages to increase internal demand and freedom from IMF restrictions. Coffee-growers were also opposed to aspects of the reform program. In particular, Campos froze the government-guaranteed coffee purchase price (cutting the real price in half in 1965) because he felt it was a great drain on government funds. But domestic opposition to

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<sup>97</sup> Skidmore, The Politics of Brazil, p. 242.

<sup>98</sup> Andre Lara Resende, "A Política Brasileira de Estabilização: 1963/1968," Pesquisa e Planejamento Económico, 12, 3 (December 1982), pp. 769-70. That both industry and labor resisted stabilization policies in 1963 casts doubt on O'Donnell's thesis that Brazil's 1964 turn to bureaucratic authoritarianism responded in part to the threat that rising wages posed to industry.



other than the minister of finance, who was simply too weak to prevail.<sup>104</sup> Economist Bacha, for example, cited the semi-official monetary function of the Banco do Brasil as a major problem for proponents of stabilization during the Sarney administration.<sup>105</sup> Sayad recited a long history of lack of central bank independence and noted that he made efforts to close the conta de movimento.<sup>106</sup> Andrea Calabi, another public sector financier for Sarney, stressed budget decentralization and the independent spending authority of the CACES and BNDES. "The principal public federal financial institutions," he writes of post-1984 heterodox stabilization efforts, "found themselves completely unprepared for a process of fiscal and monetary austerity."<sup>107</sup> Roberto Fendt who ran CACEX during Sarney's administration also spoke of the strength of the institutional constraints. "CACEX was inherently illiberal," he said, "even a liberal like me running CACEX could find himself inventing diabolical new market restrictions."<sup>108</sup> Francisco "Chico" Lopes, one of the architects of the Cruzado Plan, cites the central bank's automatic fiscal bailout function in the form of the conta de movimento as one of the major obstacles to stabilization. He notes that several finance ministers, beginning with Simonsen, tried and failed to close the facility.<sup>109</sup> His co-author in formulating the Cruzado Plan, Andre Lara Resende, pushed for institutional reform, particularly closure of the conta

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<sup>104</sup> Interview, Yoshiaki Nakano, August 16, 1990, São Paulo.

<sup>105</sup> Interview, August 8, 1990, Rio de Janeiro.

<sup>106</sup> Interview, August 6, 1990, Rio de Janeiro.

<sup>107</sup> Andrea Sando Calabi and Pedro Pullen, "Finanças Públicas Federais Aspectos Institucionais, Evolução Recente e Perspectivas," mimeo, July 1990 p. 4.

<sup>108</sup> Interview, August 9, 1990, Rio de Janeiro.

<sup>109</sup> Interview, August 7, 1990, Rio de Janeiro.

demands of social sectors making up the anti-inflationary pact."<sup>100</sup> The governing PSD continued to be vulnerable to industrialist opposition as it tried to maintain its popularity and electoral position after the 1985 elections. Olavo Setubal, a prominent private banker, recounted a revealing story. He had been promised the position of minister of finance in the Tancredo/Sarney administration but had to settle for minister of foreign affairs because the administration feared industrialists would oppose the appointment of a banker whose natural sympathies would lie with tight money.<sup>101</sup>

Two former government officials engaged in the Sarney administration's stabilization efforts cited lack of presidential commitment to fighting inflation, at least partially motivated by concern over the popularity of the PSD, as a reason for stabilization failures. Former minister of planning for Sarney, José Sayad, said the Cruzado I, Cruzadinho and Cruzado II "were not undone by Congress, but we were lacking presidential support." He recounts that Sarney was unwilling to raise excise taxes, which Sayad considered crucial.<sup>102</sup> Daniel Dantas, who advised the government after the Cruzado I Plan was first implemented, also cited lack of presidential will, arguing that "Sarney never made cutting inflation his top priority."<sup>103</sup>

Another former government official argues that the Bresser Plan failed due to opposition to fiscal adjustment from Sarney, FIESP, and all ministers

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<sup>100</sup> Lourdes, Sola, "The Political constraints to Heterodox Shock in Brazil: 'Técnicos', 'Políticos', and Democracy," paper presented at the American Political Science Association annual meeting, Washington, DC, September 1-4, 1988, p. 10.

<sup>101</sup> Interview, Olavo Setubal, August 17, 1990, São Paulo.

<sup>102</sup> Interview, August 16, 1990, São Paulo.

<sup>103</sup> Interview, August 8, 1990, Rio de Janeiro.

for their social and economic advancement.<sup>113</sup>

Unlike Peru, however, Brazil is a more resource- and land-abundant country, closer in its factor endowments to Argentina.<sup>114</sup> Like Argentina, Brazil too had a large influx of European immigrants at the turn of the century. This was to meet the rising demand for labor on the booming coffee estates. "Immigration to São Paulo alone rose from 13,000 in the 1870s to 609,000 in the 1890s."<sup>115</sup>

However, the patterns of Argentine and Brazilian economic development and growth until the Great Depression were different. This was largely due to differences in geography and climate, which led to specialization in different types of agricultural product. Argentina specialized in temperate-zone agricultural products, Brazil in tropical products, particularly coffee. As Lewis has emphasized, the product wage in producing temperate-zone agricultural products was higher than that for producing tropical products. "The price of tropical products, per man-hour of labor time, was lower than the price of wheat or wool. Tropical farmers produced less food per head than temperate farmers, and therefore received less per head for the alternative commodities which they supplied in international trade."<sup>116</sup> This meant

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<sup>113</sup>In Brazil even though transfer payments have "risen between 1949 and 1973 from 3.1% to 8.9% of GDP, reflecting the emergence of a modern social insurance system," and the social security system expanded very rapidly in the 1970s, covering 93% of the population in 1975 as compared with 27% in 1970, Maddison's recent study concluded "overall, it would seem that the tax-transfer system has had a regressive impact." L.G. Reynolds, Economic Growth in the Third World, 1850-1980 (New Haven: Yale university Press, 1985), p. 98; C. Mesa-Lago, Employment Policy in Developing Countries (Oxford: Oxford University Press, 1981), p. 86; Maddison, et al., The Political Economy of Poverty Equity and Growth: Brazil and Mexico (Oxford: Oxford University Press, forthcoming), p. 85.

<sup>114</sup>Lal and Myint, The Political Economy of Poverty.

<sup>115</sup>Reynolds, Economic Growth, p. 93.

<sup>116</sup>W.A. Lewis, Tropical Development (London: ???, 1970), p. 42.

de movimento. to be part of the Cruzado Plan.<sup>110</sup> Later, as part of the Bresser Plan, Francisco Lopes included transferring the federal government's budget office from the planning ministry to the finance ministry in order to facilitate financial control.<sup>111</sup>

A former government official who held various offices from 1964 through 1979 suggested, broadly speaking, that Brazil's policymaking institutions were designed for growth and that institutional change was too slow to allow for successful economic reform.<sup>112</sup>

#### 4. The Political Economy of the Brazilian Development Path

The political explanation for the repeated failure of Brazilian stabilization plans in terms of institutional weaknesses and interest-based opposition to economic orthodoxy itself raises further questions. The major question which we are finally led to is: What are the deeper economic mainsprings of the interest-based opposition to orthodoxy?

A brief comparison of the polities and economies of Brazil with Argentina and Peru, as they have evolved since the 19th century, is instructive. Like Peru (with its large Indian population), Brazil has had a substantial nonwhite population (the descendants of African slaves) which has not been part of the polity. This partly explains why various social indicators relating to health, education and social services in Brazil look very similar to that of Peru. The poorest in both countries are nonwhite with no "voice" in the political process. Little has been done by the state

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<sup>110</sup> Interview, August 16, 1990. São Paulo.

<sup>111</sup> Interview, August 7, 1990. Rio de Janeiro.

<sup>112</sup> João Paulo dos reis Velloso. August 9, 1990, Rio de Janeiro. He also noted that in 1964 the military ignored a congressional mandate to make the Central Bank president's term a guaranteed eight years.

Brazil. Thus when the coffee interests diversified into industry, the sharp distributional conflict that Peron fomented in Argentina did not occur in Brazil.<sup>118</sup>

By 1920 there had been very rapid urbanization in Brazil and in the growth of the industrial labor force (see Table 5 and 6). "The volume of industrial production doubled during World War I, and tripled by 1923... Two industries, foodstuffs and textiles, accounted for nearly three-quarters of total factory production. By 1920 industrial production [had increased] nearly five-fold since 1907."<sup>119</sup> It was Vargas' political genius to weld these new and growing urban interests into a political multi-class coalition which challenged the political hegemony of the old "landed" oligarchy. "Concentrated in the sensitive and restive urban areas, the proletariat and middle class wielded influence and power disproportionately to their size," writes Burns, "numerically they never constituted a majority; most Brazilians continued to live in the countryside. Except for the small but powerful rural oligarchy, however, they were politically inarticulate."<sup>120</sup>

With the Great Depression, Brazil introduced import controls, with imports falling by about 25% between 1929 and 1932. The resulting import substitution that was induced was financed largely from the profits of the "coffee interests" who were politically disenfranchised during the Vargas years.<sup>121</sup> In the postwar period this coalition of essentially urban interest groups was incorporated into a corporatist populist state, which

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<sup>118</sup>This point was made forcefully by Roberto Campos in a personal interview.

<sup>119</sup>E. Bradford Burns (1980, p. 356).

<sup>120</sup>Burns (1980, p. 414).

<sup>121</sup>Burns (1980, p. 423).

that even with similar factor endowments real wages would have been expected to be higher in Argentina than Brazil. Moreover, Argentina's temperate-zone agricultural exports were increasingly diversified, which reduced "Argentina's exposure to price fluctuations for any one product."<sup>117</sup> This led to sustained growth in Argentina at one of the highest per capita growth rates in the world, until World War I. Brazil, by contrast, specialized in the tropical crop -- coffee. It rode the coffee cycle, which led to periods of high growth followed by periods of negative growth. The differing estimates surveyed in Reynolds suggest at best a very low average growth of under 1% per year in per capita income for Brazil over the 1863-1913 period.

The politics in Argentina and Brazil were similar and evolved along parallel lines. Both countries were under the oligarchic rule of a small elite. As a result of the growth of the export economy and the increasing size of the domestic market, industrialization began by the turn of the century in both countries and led to the slow evolution of an industrial labor force. This process continued more rapidly when both countries eventually "turned inwards" after the collapse of their primary product exports during the Great Depression.

The ensuing expansion in the urban labor force, which increasingly sought a "voice" in the polity, provided an opportunity to political entrepreneurs -- Peron in Argentina, Vargas in Brazil -- to challenge the old oligarchy by forging a new political coalition including the urban working class. But whereas Peron polarized the Argentine polity with his form of populism, setting rural landed interests against urban labor, Vargas in his populist attack on the old oligarchy stopped short of fomenting class war in Brazil. There was little polarization between the bourgeoisie and labor in

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<sup>117</sup> Reynolds, Economic Growth, p. 86.

the land vertex. On any line emanating from one corner of the triangle, the ratio of the other two factors is the same.

Assume all goods are traded and produced with fixed coefficients. There are five manufactured goods produced by labor and capital, of increasing capital intensity, whose input vectors are shown as  $M_1, \dots, M_5$  along the "labor-capital" edge of the triangle. There are two agricultural goods:  $A_1$  which is produced only with labor and land and hence lies on the labor-land edge of the triangle, and  $A_2$  which is more land-intensive than  $A_1$  and also uses all three factors of production. For a given set of commodity prices, the endowment triangle can then be divided into seven "regions of diversification" (by connecting the seven input vector points and the three axis coordinates). Countries with factor endowments in the same region of diversification will have the same factor prices and produce the same commodities with vector inputs given by the relevant vertices. Given commodity prices, relative factor intensities determine factor prices in each region.

Now consider two illustrative development paths in this model. The first is that of a typical land- and capital-scarce but labor-abundant country whose endowment point  $E_A$  is on, or close to, the "labor-capital" axis. With capital accumulating faster than the growth of the labor force, assume that the country which we label "labor-abundant" moves up the ladder of comparative advantage with respect to manufactured goods, with rising capital intensity. Hence on this development path the wage rises and the rentals on capital and land fall.

The second path is for a land-abundant, but labor- and capital-scarce country whose endowment point  $E_1$  lies in the region of diversification II, where it produces both the relatively labor-intensive agricultural good  $A_1$  and the land-cum-capital-intensive good  $A_2$ . Consider one possible path of

began with the establishment of the Estado Novo after Vargas' coup in 1937. This had two major objectives -- to deal with the so-called "social question" concerning the urban proletariat and ensuring that industrial profits remained high.

Beginning with the various forms of social legislation developed by Vargas' minister of labor, Lindolfo Collor, in the 1930s, an important objective of the Brazilian state thereafter was "the process of the incorporation or 'cooptation' (cooptação) of the urban, and later rural, working class into a system where conflict was carefully damped down".<sup>122</sup> An essential element in this incorporation of the "dangerous classes" would seem to have been the desire to prevent any decline in real wages which might occur if the demand for labor was not rising rapidly enough to meet the increased supply flowing from population growth which had accelerated from about 2.3% in the 1930s and 1940s to 2.8% in the 1960s. This can become a fairly acute problem in a land-abundant economy. It is to avoid this politically dangerous outcome that the basic impetus for Brazil's distinctive postwar growth path (outlined in Section 1) -- with an inflationary cum foreign-financed "big push" followed by a macroeconomic and debt crisis, which once controlled is followed by another "big push" -- can be found.

The analytical framework which best brings out these deeper economic impulses is a Krueger-Leamer three-factor multicommodity open economy model. Thus, consider the simple model of a free-trade world depicted by the Leamer endowment triangle in Figure 2-6. The three vertices of the Leamer triangle are the origins for the three factors of production -- capital, labor, and land. Along the horizontal edge the capital-labor ratio rises as one moves rightward. On the left edge, the land-labor ratio rises as we move toward

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<sup>122</sup>P. Flynn (1978, p. 100).



167.<sup>124</sup> The manufacturing wage relative to the sample mean of 45 developing countries (1964-72) was: South America 1.27; Central America and Caribbean 1.52; Mediterranean 0.96; Asia 0.44; Africa 0.65.<sup>125</sup> Though these regional categories are by no means coterminous with categories in terms of factor endowments, the gross differences in the relative wage in Latin America and Asia, for example, would reflect the difference between countries in these regions which are closer to the land- and labor-abundant categories, respectively, in the Leamer triangle.

Figure 2-7 shows our estimates of the time path of Brazil's changing factor endowments between 1940 and 1987 within the Leamer triangle. The effects on factor endowments of the two big pushes is clear. In the 1940s there is a fall in the land-man ratio and a modest rise in the capital-labor ratio so the endowment point is pushed southward into the potentially politically dangerous regions where real wages might decline. The first big push of the 1950s leads to a rise in both the land-labor and capital-labor ratios, which will have most likely moved the endowment point into high-wage regions. After a pause in the 1960s, there is another big push in the 1970s with the land-labor ratio roughly unchanged but with a doubling of the capital-labor ratio. The endowment point moves towards the capital vertex, which should have led to rising real wages. The 1980s see the "bust" and a decline in both the capital and land-labor ratios, with their ominous implications for real wages as the endowment path moves southward.

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<sup>124</sup> Squire, Employment Policy.

<sup>125</sup> The countries included were: Chile, Peru, Brazil, Argentina, Guyana, Ecuador, Trinidad, Nicaragua, Jamaica, Barbados, Panama, Puerto Rico, Dominican Republic, Honduras, Venezuela, El Salvador, Guatemala, Mexico, Colombia, Turkey, Algeria, Cyprus, Egypt, Korea, Taiwan, Sri Lanka, Burma, Viet Nam, India, Thailand, Singapore, Philippines, Pakistan, Kenya, Tanzania, Zambia, Uganda, Rhodesia, Ghana, Malawi, Mauritius, Sierra Leone, and Nigeria.

development with both capital and labor growing. Suppose the path of the economy's changing factor endowment is given by the dashed line from  $E_1$ . The economy will then move from region I to VII and VI to IV. In this process it will begin to industrialize as soon as it moves into region VI, but in the most capital-intensive manufacture. Over time it will move into regions which require specialization in increasingly more labor-intensive goods. The factor price consequence of this development path will be a falling wage rate, and from the time the economy moves into region VII, rising rental rates on capital and land. The functional distributional (and ipso facto political) implications of the required path of wages on this stylized land-abundant open economy's development path (with a falling wage) would be very different from those of the stylized labor-abundant case (with rising wages) which are also predicted by the standard two-factor models. But note that, even though the wage might be falling in the course of the land-abundant country's development path (for some time), it will still be higher than for the labor-intensive country, until both wage paths converge on the region of specialization in region IV.<sup>123</sup>

Some indication of these differences in relative wage levels is provided by average regional wage differentials summarized in Squire (Table

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<sup>123</sup>It might seem paradoxical that, while the economy's capital-labor ratio is rising, it is falling in manufacturing. But remember that the rate of growth of labor for the economy is not the same as in manufacturing. Then, it is possible for the agricultural labor force to grow more slowly (because of fixed land) than for the economy as a whole, thereby allowing and requiring the labor force in the manufacturing sector to grow more rapidly than for the economy as a whole. Thus a rising capital-labor ratio for the economy as a whole can be associated with a falling capital-labor ratio in manufacturing. Of course, there will be some rate of capital growth at which the capital-labor ratio for manufacturing will also be rising along with that for the economy as a whole, and this paradoxical development path would not occur.

reduced-form equation which shows the time path of percentage changes in real wages ( $w$ ) being determined by the percentage change in the real exchange rate ( $e$ ), and the percentage change in the capital-labor ratio ( $k$ ). Data on these variables which we have estimated for Brazil is charted in Figure 2-8. If the lags between the impact and equilibrium effects of any exogenous change in relative commodity prices and factor supplies are  $z$ , and  $q$ , respectively, and if the constant  $a$  represents a time term, and  $u$  is a random error term, we have:

$$w_t = a + \sum_{i=t}^{t-z} b_i e_i + \sum_{j=t}^{t-q} o_j k_j + u_t.$$

We estimated this model for our admittedly imperfect series for  $w$ ,  $e$ , and  $k$ . Using a distributed polynomial lag of 4 on both the independent variables, and with a third-degree polynomial on  $e$ , and a first degree polynomial on  $k$ , yielded statistically significant results.<sup>127</sup> The estimated and actual percentage changes in real wages over the sample period 1966-84 are shown in Figure 2-8. This provides some confirmation for our hypothesis that Brazil's "big push" cycle is part of the land-abundant country syndrome of avoiding possible real wage declines along its efficient development path.

Further confirmation is provided by the pattern of postwar Brazilian industrialization and its relative efficiency. Bergsman reports that, in the first phase noted above, labor-intensive industries such as textiles (set up initially after the import controls following the Great Depression, and which were further helped during the period of natural protection offered by World War II) had much high rates of effective protection than

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<sup>127</sup>The relevant statistics for the regression from the 1966-84 period are:  $R^2 = 0.51$ ;  $F = 2.06$ ,  $DWS = 2.4$ .

We do not have the requisite information to divide up the triangle into areas of specialization as in Figure 2-7, to determine whether the motive behind the two big pushes (in the "deeper" sense of the logic underlying the evolution of the functional distribution of income in the three-factor open economy model) was to avert an otherwise declining wage path (along a counterfactual path of capital-labor ratios). However, if there was such a tendency, the argument underlying Figure 2-6 suggests that the polity, besides trying to shift the path toward the capital vertex in the Leamer triangle, would also attempt to enlarge the high-wage areas of specialization artificially through protection.

This last point suggests a way of indirectly inferring whether or not a desire to avoid a potentially politically explosive falling real wage path might underlie the long-run Brazilian cycle of a "big push" with its accompanying dirigiste policies, resulting in macroeconomic instability, which after a hyperinflationary crisis necessitates the standard orthodox cure for past excesses, followed by another big push ...

If we aggregate the three-factor multicommodity model into the standard two-factor-two-good model (assuming that land requires capital to be made effective) with a composite traded good (which in Brazil would be capital intensive) and a labor-intensive nontraded good, we can derive a relationship between real wage changes and those in the real exchange rate (relative price of nontraded to traded goods) and the capital-labor ratio, within an extended version of the Ricardo-Viner model of trade theory. This relationship is derived formally (including the necessary restrictions on the production function parameters to remove the so-called neoclassical ambiguity in real wage movements) in previous work.<sup>126</sup> It leads to a

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<sup>126</sup>Deepak Lal (1986).

evidence, on the timing of growth in exports of capital-intensive goods and policy preferences of producers of capital-intensive goods, for example, this effort to resolve Bergsman's puzzle must remain speculative.

If accurate, this framework suggests that Brazil's policymakers have pursued growth at the cost of inflation and eschewed stabilization to prevent the polity being continually at odds with the economy (something which Argentina, for instance, thought similar in resource endowments, has not succeeded in achieving). Whether this novel Brazilian tightrope act can continue in the future, unfortunately only time will tell. But if our argument is correct, even if the Collor Plan succeeds, it is more than likely that Brazil will revert to its "bad old ways". Even though the dog may have appeared to bark with the Collor Plan, in this case appearances may be deceptive!

intermediate and capital goods industries (see Table 7).<sup>128</sup> Moreover, he estimates that the production of many of these relatively capital-intensive industries was socially profitable. Secondly, unlike a more labor-abundant country such as India, which followed a very similar industrial strategy, the realized rate of return on investment in Brazil over the 1950-85 period was 21% compared with India's 13%.<sup>129</sup> This, it would seem, was because within the three-factor framework, Brazil's development (unlike India's) was not, by and large, against its comparative advantage.

As Bergsman concluded, "What are we to make of an LDC which has efficient producers of steel, automobiles and capital goods, but many extremely inefficient textile manufacturers?"<sup>130</sup> The puzzle becomes less acute if we note that a land-abundant country's comparative advantage is likely to lie in capital-intensive industries. given the difficulties in absorbing the relevant technology and the development of appropriate skills, it will be impossible to realize this comparative advantage "de novo". The development of the "easier" industries like textiles which are labor-intensive would require protection. Once the necessary industrial skills are developed, industrialization could proceed into the capital-intensive sectors in which the country has a comparative advantage. But the earlier "easier" industries would still require heavy protection to survive. The pattern of protection in Table 7 would thus be in industrialists' interests. They would also naturally benefit from any pump-priming "big push," particularly if the real costs of the foreign financing involved were reduced by what in effect has amounted to debt repudiation! However, without further

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<sup>128</sup> J. Bergsman (1970).

<sup>129</sup> Deepak Lal (1990, pp. 101-22)

<sup>130</sup> Bergsman (1970 p. 150).

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- Pamela S. Falk, and David W. Fleischer (eds.). Brazil's Economic and Political Future (Boulder, CO: Westview Press).
- Fishlow, Albert (1973): "Some Reflections on Post-1964 Brazilian Economic Policy." in Alfred Stepan (ed.), Authoritarian Brazil (New Haven, CT: Yale University Press).
- Fishlow, Albert (1989): "A Tale of Two Presidents: The Political Economy of Crisis Management," in Alfred Stepan (ed.), Democratizing Brazil: Problem of Transition and Consolidation (Oxford: Oxford University Press).
- Flynn, P. (1978): Brazil - A Political Analyses (Boulder, CO: Westview Press).
- Friedman, Jeffrey A. (1991): Debt, Development, Democracy: Modern Political Economy and Latin America, 1965-1985 (Princeton, NJ: Princeton University Press).
- Furtado, Celso (1984): No To Recession and Unemployment (London: Third World Foundation).
- Grindle, Merilee S. (1989): "The New Political Economy: Positive Economics and Negative Politics," (Cambridge, MA: Harvard Institute for International Development), Development Discussion Paper No. 311, August.
- Haggard, Stephan (1990): Pathways From the Periphery (Ithaca, NY: Cornell University Press).
- Haggard, Stephan and Kaufman, Robert (1990): "The Political Economy of Inflation and Stabilization in Middle-Income Countries," PRE Working Paper, WPS 444 (Washington, DC: Country Economic Dept., World Bank).
- Joint Brazil-U.S. Economic Development Commission (1954): The Development of Brazil (Washington, DC: Institute of Inter-American Affairs, Foreign Operations Administration).
- Kaufman, Robert R. (1988): The Politics of Debt in Argentina, Brazil and Mexico (Berkeley: University of California Institute of International Studies).
- Lafer, Carlos (1975): O Sistema Politico Brasileiro (São Paulo: Editora Perspectiva).
- Lal, Deepak (1986): "Stolper-Samuelson-Rybczynski in the Pacific," Journal of Development Economics, 21(1), pp. 181-204.
- Lal, Deepak (1987): "The Political Economy of Economic Liberalization." World Bank Economic Review, 1(2), pp. 273-99.
- Lal, Deepak (1990): "World Savings and Growth in Developing Countries." Rivistia di Politica Economica, 53(12).
- Lal, Deepak and Myint, H. (1991): "The Political Economy of Poverty, Equity and Growth," mimeo, London.

## REFERENCES

- Ames, Barry (1987): Political Survival: Politicians and Public Policy in Latin America (Berkeley: University of California Press).
- Asheshov, Nicholas and Reich, Cary (1980): "Has delfim Worked His Last Miracle?" Institutional Investor, August, pp. 175-93.
- Bacha, Edmar L. (1983): "Vicissitudes of Recent Stabilization Attempts in Brazil and the IMD Alternative," in John Williamson (ed.), IMF Conditionality (Washington, DC: Institute for International Economics).
- Bacha, Edmar L., and Malan, Pedro S. (1989): "Brazil's Debt: From the Miracle to the Fund," in Alfred Stepan (ed.), Democratizing Brazil: Problems of Transition and Consolidation (Oxford: Oxford University Press).
- Bergsman, J. (1970): Brazil (Oxford: Oxford University Press for OECD).
- Boschi, Renato Raul (1978): "National Industrial Elites and the State in Post-1964 Brazil," (Ph.D. dissertation, University of Michigan).
- Burns, E. Bradford (1980): A History of Brazil, 2nd ed. (New York: Columbia University Press).
- Calabi, Andrea Sandro, and Pullen, Pedro (1990): "Finanças Públicas Fedrais: Aspectos Institucionais, Evolução Recente e Perspectivas," mimeo, July.
- Campbell, Gordon (1972): Brazil Struggles for Development (London: Charles Knight & Co.)
- Cardosa, Fernando H. (1986): "Entrepreneurs and the Transition Process: The Brazilian Case," in Guillermo O'Donnell, Philippe C. Schmitter, and Laurence Whitehead (eds.), Transitions from Authoritarian Rule (Baltimore: John Hopkins University Press).
- Carneiro, Dionisio Dias (1987): "Long-Run Adjustment, the Debt Crisis and the Changing Role of Stabilization Policies in the Recent Brazilian Experience," in Rosemary Thorp and Laurence Whitehead (eds.), Latin American Debt and the Adjustment Crisis (Pittsburgh: University of Pittsburgh Press).
- Dreifuss, Rene (1986): 1964: A Conquista do estado (Rio de Janeiro: Vozes)
- Dye, David, and de Souza e Silva, Carlos Eduardo (1978): "A Perspective on the Brazilian State," Latin American Research Review, 14, 2.
- Ellis, Howard S. (1969): "Corrective Inflation in Brazil, 1964-1966," in Howard S. Ellis and Lincoln Gordon (eds.), The Economy of Brazil (Los Angeles: University of California Press).
- Faria, Hugo Presgrave de A. (1988): "Macroeconomic Policymaking in a Crisis Environment: Brazil's Cruzado Plan and Beyond," in Julian M. Chacel.



- Reynolds, L.G. (1985): Economic Growth in the Third World, 1850-1980 (New Haven, CT: Yale University Press).
- Schmitter, Philippe C. (1971): Interest Conflict and Political Change in Brazil (Stanford, CA: Stanford University Press).
- Schneider, Ben Ross (1987): "Framing the State: Economic Policy and Political Representation in Post-Authoritarian Brazil," in John D. Wirth and Edson de Oliveira Nunes (eds.), State and Society in Brazil: Continuity and Change (Ithaca, NY: Cornell University Press).
- Singer, Paul (1989): "Democracy and Inflation, in the Light of the Brazilian Experience," in William Canak (ed.), Lost Promises: Debt, Austerity and Development in Latin America (Boulder, CO: Westview Press).
- Skidmore, Thomas E. (1967): Politics in Brazil 1930-1964 (New York: Oxford University Press).
- Skidmore, T.E. (1988): The Politics of Military Rule in Brazil, 1964-1985 (New York: Oxford University Press).
- Sola, Lourdes (1988): "The Political Constraints to Heterodox Shock in Brazil: 'Técnicos,' 'Políticos,' and Democracy," paper presented at the American Political Science Association Annual Meeting, Washington, DC, September 1-4.
- Squire, L. (1987): Employment Policy in Developing Countries (Oxford: Oxford University Press).
- Wells, John R. (1979): "Brazil and the Post-1973 Crisis in the International Economy," in Rosemary Thorp and Laurence Whitehead (eds.), Inflation and Stabilization in Latin America (London: Macmillan).
- World Bank (1990): Economic Stabilization With Structural Reforms (Washington, DC: Brazil Department, World Bank).

Lamounier, Bolivar, and Moura. Alkimar R. (1986): "Economic Policy and Political Opening in Brazil," in Jonathan Hartlyn and Samuel A. Morley (eds.), Latin American Political Economy: Financial Crisis and Political Change (Boulder, CO: Westview Press).

Langoni, C.G. (1974): As Causas do Crescimento Economico do Brasil (Rio de Janeiro: APEC).

Lara, Resende, Andre (1982): "A Política Brasileira de Estabilização: 1963/1968," Pesquisa e Planejamento Económico, 12(3), December.

Leamer, E. (1984): Sources of International Comparative Advantage (Cambridge, MA: MIT Press).

Leff, Nathaniel H. (1968): Economic Policy-Making and Development in Brazil, 1947-1964 (New York: Wiley).

Levi, Margaret (1989): Of Rule and Revenue (Berkeley: University of California Press).

Lewis, W.A. (1970): Tropical Development (London: Allen and Unwin).

Maddison, A. (1987): "Twin Study of Brazil and Mexico - Comparative Graphs and Statistical Tables," mimeo.

Maddison, A. and Associates (1989): The Political Economy of Poverty, Equity and Growth: Brazil and Mexico (Oxford: Oxford University Press for the World Bank), in press.

Marshall, Jorge, Mardones S., Mose Luis, and Marshall L., Isabel (1983): "IMF Conditionality: The Experiences of Argentina, Brazil and Chile," in John Williamson (ed.), IMF Conditionality (Washington, DC: Institute for International Economics).

Maxfield, Sylvia (1989): "National Business, Debt-Led Growth, and Political Transition in Latin America," in Barbara Stallings and Robert Kaufman (eds.), Debt and Democracy in Latin America (Boulder, CO: Westview Press).

Maxfield, Sylvia (1990): Governing Capital: International Finance and Mexican Politics (Ithaca: Cornell University Press).

Mendonça de Barros, José Roberto, and Graham, Douglas (1978): "The Brazilian Economic Miracle Revisited," Latin American Research Review, 13, 2.

Mesa-Lago, C. (1989): Ascent to Bankruptcy - Financial Social Security in Latin America (Pittsburgh: University of Pittsburgh Press).

Pang, Eul-Soo (1989): "Debt, Adjustment and Democratic Cacophony in Brazil," in Barbara Stallings and Robert Kaufman (eds.), Debt and Democracy in Latin America (Boulder, CO: Westview Press).

Payne, Leigh Ann (1978): "The Political Attitudes and Behavior of Brazilian Industrial Elites," (Ph.D. dissertation, Yale University).

TABLE 2  
 Presidents of Brazil 1919-1989 and  
 Percentage of the Population Who Voted For Them

<u>Year</u>		<u>Vote (%)</u>
1919-22	Epitacio da Silva Pessoa	1.1
1922-26	Arthur da Silva Bernades	1.6
1926-30	Washington Luis Pereira de Souza	2.2
1930-45	Getulio Dornelles Vargas	0.0
1946-51	Enrico Gaspar Dutra	6.9
1951-54	Getulio Dornelles Vargas	7.2
1954-55	João Café Filho	0.0 <sup>a</sup>
1956-61	Juscelino Kubitschek de Oliveira	5.0
1961	Janio da Silva Quadros	7.9 <sup>c</sup>
1961-64	João Belchior Marques Goulart	0.0 <sup>b</sup>
1964-67	Humberto de Alencar Castelo Branco	0.0
1967-68	Arthur da Costa e Silva	0.0
1969-74	Emilio Garrastazu Medici	0.0
1974-79	Ernesto Geisel	0.0
1979-85	João Baptista de Oliveira Figueiredo	0.0
1985	Jose Sarney	0.0

<sup>a</sup>4.7% as vice-president.

<sup>b</sup>6.3% as vice-president.

<sup>c</sup>In the last "popular" election in 1961, Brazilian registered voters were 22.3% of the population and 18.0% voted. This compares with the U.S. presidential election of 1960 when registered voters were 59.3% of the population and 37.9% voted.

Source: IBGE, Anuario Estatístico 1984, Rio 1985, p. 374.

TABLE 1  
 Comparative Performance Indicators 1929-1987  
 (Annual Average Compound Growth Rates)

	<u>1929-50</u>	<u>1950-80</u>	<u>1980-87</u>	<u>1950-87</u>	<u>1929-87</u>
GDP					
Argentina	2.5	3.4	-0.6	2.6	2.6
Brazil	4.6	6.8	2.4	5.9	5.4
Chile	2.6	3.5	0.6	3.0	2.9
Colombia	3.6	5.2	2.8	4.7	4.3
Mexico	4.0	6.4	1.0	5.3	4.8
Peru	1.8	4.9	1.9	4.3	3.4
India	0.7	3.7	4.4	3.8	2.7
Japan	1.1	8.0	3.7	7.1	4.9
Korea	0.7	7.4	8.7	7.6	5.1
Taiwan	1.8	9.1	7.4	8.8	6.2
GDP Per Capita					
Argentina	0.6	1.7	-2.1	1.0	0.8
Brazil	2.4	3.9	-0.1	3.1	2.9
Chile	0.9	1.5	-1.0	1.0	1.0
Colombia	1.7	2.4	0.9	2.1	2.0
Mexico	1.6	3.1	-1.2	2.3	2.1
Peru	2.0	2.1	-0.7	1.5	2.0
India	-0.5	1.6	2.2	1.7	0.9
Japan	-0.2	6.8	3.0	6.0	3.7
Korea	-1.4	5.2	7.0	5.5	3.0
Taiwan	-0.9	6.2	5.9	6.1	3.5

Source: Statistical Appendix 2.A and Maddison et al. (1989).

TABLE 4  
Changes In Real Money Balances

<u>Year</u>	<u>Real Money</u>
1950	25.80000
1951	-2.400000
1952	5.700000
1953	5.200000
1954	-2.100000
1955	0.200000
1956	-0.600000
1957	19.30000
1958	8.600000
1959	7.099999
1960	12.60000
1961	16.30000
1962	12.90000
1963	-13.40000
1964	-4.900002
1965	17.80000
1966	120.1000
1967	16.50000
1968	16.30000
1969	8.900000
1970	10.70000
1971	12.70000
1972	18.10000
1973	17.40000
1974	-0.500000
1975	9.000000
1976	-4.400002
1977	-7.500000
1978	3.799999
1979	19.60000
1980	-20.30000
1981	-35.10000
1982	-35.60000
1983	-41.39999
1984	-10.00000
1985	111.6000
1986	177.2000
1987	-81.30000
1988	-112.6000
1989	-359.9000

Source: Appendix 2.1.

TABLE 3

## Brazilian Stabilization Episodes, 1945-1991

<u>Period</u>	<u>President</u>	<u>Common Name of Plan or Key Author</u>
Oct. 1953-May 1954	Vargas	Lafer/Aranha
Aug. 1954-Apr. 1955	Café Filho	Gudin
June 1958-June 1959	Kubitschek	Alkim/Lopes
Mar. 1961-Aug. 1961	Quadros	
Jan. 1963-May 1963	Goulart	Furtado-Dantas Plan
1964-1967	Castello Branco (military government after 1964 coup)	Campos/Bulhões
1974	Geisel	Simonsen
Feb. 1979-Aug. 1979	Figueiredo	Simonsen
1980-1984	Figueiredo/Sarney	Delfim Netto
Feb. 1986-Nov. 1986	Sarney	Cruzado I
Nov. 1986-Feb. 1987	Sarney	Cruzado II
Mid-1987	Sarney	Bresser Plan
Jan. 1989	Sarney	Summer Plan
1990-?	Collor	Collor Plan

TABLE 6  
The Growth of Industrialization,  
1909-1940

<u>Year</u>	<u>Number of Industrial Establishments</u>	<u>Capital Invested (1,000 contos)</u>	<u>Value of Production (1,000 contos)</u>	<u>Number of Employees</u>
1907	2,988	665	669	136,000
1920	13,336	1,815	3,200	276,000
1940	70,026	12,000	25,000	1,412,000

Source: Burns (1980, p. 357).

TABLE 5  
 Population Growth of the Capitals of the Major States,  
 1890 and 1920

State	1890	1920
Salvador	174,412	283,422
Belo Horizonte	-	55,563
Recife	111,556	238,843
Niteroi	34,269	86,238
Porto Alegre	52,421	179,263
São Paulo	64,935	579,033
Rio de Janeiro (federal capital)	552,651	1,157,873

Source: Burns (1980, p. 313).



AI -- STATISTICAL APPENDIX

TABLE 3

Macroeconomic Statistics

Year	GDPGRT <sup>a</sup>	MICHG <sup>b</sup>	GDPDEF <sup>c</sup>	RLMONY <sup>d</sup>
1950	6.100000	35.00000	9.200000	25.80000
1951	4.700000	16.00000	18.40000	-2.400000
1952	6.000000	15.00000	9.300000	5.700000
1953	4.800000	19.00000	13.80000	5.200000
1954	6.600000	25.00000	27.10000	-2.100000
1955	7.400000	12.00000	11.80000	0.200000
1956	2.900000	22.00000	22.60000	-0.600000
1957	6.800000	32.00000	12.70000	19.30000
1958	9.100000	21.00000	12.40000	8.600000
1959	8.400000	43.00000	35.90000	7.099999
1960	8.300000	38.00000	25.40000	12.60000
1961	7.500000	51.00000	34.70000	16.30000
1962	6.100000	63.00000	50.10000	12.90000
1963	1.000000	65.00000	78.40000	13.40000
1964	3.400000	85.00000	89.90000	-4.900002
1965	2.000000	76.00000	58.20000	17.80000
1966	6.300000	158.0000	37.90000	120.1000
1967	4.000000	43.00000	26.50000	16.50000
1968	8.900000	43.00000	26.70000	16.30000
1969	8.700000	29.00000	20.10000	8.900000
1970	9.800000	27.00000	16.30000	10.70000
1971	10.10000	32.00000	19.30000	12.70000
1972	10.80000	38.00000	19.90000	18.10000
1973	12.50000	47.00000	29.60000	17.40000
1974	7.800000	34.00000	34.50000	-0.500000
1975	5.200000	43.00000	34.00000	9.00000
1976	9.400000	37.00000	41.40000	-4.400002
1977	4.700000	38.00000	45.50000	-7.500000
1978	5.000000	42.00000	38.20000	3.799999
1979	7.100000	74.00000	54.40000	19.60000
1980	8.800000	70.00000	90.30000	-20.30000
1981	-4.400000	73.00000	108.1000	-35.10000
1982	0.600000	70.00000	105.6000	-35.60000
1983	-3.500000	100.0000	141.4000	-41.39999
1984	5.100000	205.0000	215.0000	-10.00000
1985	8.300000	343.0000	231.4000	111.6000
1986	7.600000	321.0000	143.8000	177.2000
1987	3.600000	128.0000	209.3000	-81.30000
1988	-0.300000	572.0000	684.6000	-112.6000
1989	NA	1423.000	1782.900	-359.9000

TABLE 7  
Sectoral Features

<u>Sectors</u>	<u>Protection</u>	<u>Subsidies and Other Promotion</u>	<u>Import Substitution</u>
Daddies: consumer nondurables	Very high	Little or none	Had already happened
Infants: consumer durable	Very high	Strong	Virtually complete
Intermediate goods	Low to moderate	Strong	Great
Capital goods	Low	Little	Great

Source: Bergsman (1970, p. 109).

TABLE 9  
Statistics for 3 Factor Model

Year	FRKGDP <sup>a</sup>	WAGE <sup>b</sup>	RESCHG <sup>c</sup>	CAPLAB <sup>d</sup>
1950	-0.700000	NA	NA	NA
1951	2.500000	NA	NA	100.6000
1952	3.100000	NA	NA	102.0000
1953	-0.100000	NA	NA	103.4000
1954	1.000000	NA	NA	104.9000
1955	0.100000	37.80000	NA	106.8000
1956	-0.100000	40.70000	NA	108.2000
1957	1.200000	43.50000	NA	109.8000
1958	1.100000	44.00000	NA	111.8000
1959	1.400000	41.10000	NA	114.9000
1960	2.100000	NA	111.1000	115.5000
1961	1.100000	43.40000	99.90000	115.0000
1962	2.600000	41.50000	103.6000	114.1000
1963	1.000000	47.40000	121.9000	115.2000
1964	-0.400000	48.40000	102.4000	119.1000
1965	-1.500000	49.00000	100.0000	122.1000
1966	0.100000	49.10000	114.5000	121.2000
1967	1.200000	46.00000	119.2000	124.0000
1968	1.600000	48.30000	115.7000	126.9000
1969	0.900000	52.00000	111.4999	128.2999
1970	1.500000	70.00000	110.6000	132.9000
1971	3.000000	78.10000	105.8000	136.5000
1972	2.900000	89.60000	100.6000	141.0000
1973	2.000000	91.10000	103.6000	146.4000
1974	6.500000	97.40000	113.3000	153.3000
1975	5.200000	89.10000	113.7000	161.4000
1976	3.900000	100.0000	123.2000	170.4000
1977	2.300000	103.6000	123.3000	178.8000
1978	3.500000	108.5000	118.7000	186.1000
1979	4.900000	113.2000	113.5000	193.8000
1980	5.400000	100.0000	102.9000	202.3000
1981	4.400000	98.50000	117.7000	213.8000
1982	5.700000	91.70000	121.8000	224.5000
1983	3.300000	85.00000	92.80000	223.5000
1984	0.000000	80.40000	90.10000	239.3000
1985	-0.100000	90.50000	NA	244.8000
1986	2.000000	97.00000	NA	251.9000
1987	0.500000	NA	NA	NA
1988	-1.200000	NA	NA	NA
1989	-0.300000	NA	NA	NA

Table 8 (cont.)

<sup>a</sup> GDPGRT (1989) - Annual percentage change in GDP at factor cost; from Maddison et al., Table B2). World Bank.

<sup>b</sup> MICHG - Percentage change in M1 was obtained up to 1953 from Kahil (1973, p. 275); 1978-86 from IMF; 1986-89 from World Bank and IFS.

<sup>c</sup> GDPDEF - Percentage change of GDP deflation; from Maddison et al. (1989, Table B2).

<sup>d</sup> RLMONY - MICHG-GDPDEF.

TABLE 10

## Change In Capital Stock

<u>Year<sup>a</sup></u>	<u>KSTINC<sup>a</sup></u>
1950	NA
1951	3.500000
1952	4.300000
1953	4.300000
1954	4.300000
1955	4.700000
1956	4.200000
1957	4.400000
1958	4.700000
1959	5.700000
1960	6.200000
1961	5.600000
1962	4.800000
1963	5.800000
1964	6.000000
1965	5.200000
1966	4.500000
1967	5.000000
1968	5.000000
1969	6.100000
1970	6.400000
1971	6.600000
1972	7.200000
1973	7.700000
1974	8.600000
1975	9.200000
1976	9.500000
1977	8.800000
1978	8.000000
1979	8.000000
1980	8.300000
1981	8.000000
1982	7.300000
1983	6.300000
1984	4.800000
1985	4.600000
1986	5.200000
1987	NA
1988	NA
1989	NA

KSTINC - Percentage increase in capital stock derived from data in Table 11.

Table 9 (cont)

<sup>a</sup>FRKGDP - Current account deficit as a percentage of GDP; 1947-60, Kahil, 1973, p. 130; 1960-73, World Tables 1976; 1974-89, World Bank, 1990.

<sup>b</sup>WAGE - Real wages in manufacturing. Index numbers derived from: 1955-65, Carvalho and Haddad, 1981, p. 39; 1966-83, World Bank data (Lal and Myint, 1990); 1984-87, World Bank, 1990.

<sup>c</sup>REXCHG - Real exchange rate. Index numbers from Wood (1988).

<sup>d</sup>CAPLAB - Derived as shown in notes to Table 11.

Table 11 (cont.)

Maddison (1987, Table 6) reports figures supplied by FIBGE (Feb. 1987) for gross increment to capital stock as percentage of 1950 GDP given in column (2), "Gross investment".

Langoni (1974) provides a benchmark estimate of the 1950 ratio of net fixed capital stock to net domestic product (at 1953 market prices) of 2.6. If the index number for real (constant price) GDP in 1950 is 100, this would yield a net fixed capital stock index number of 260 for the 1950 capital stock. This is the first entry in column (1), "Capital stock". The column (2) figures then give us the index numbers for gross capital formation, normalized as is the figure in column (1) on a 1950 GDP index base of 100.

In column (3) we have made a crude adjustment to the figures in column (2) to obtain the relevant index numbers (normalized on a 1950 GDP base of 100) for depreciation. As no figures for depreciation were available for Brazil, we have used the figure for "annual consumption of fixed capital" in India for 1970-82, of 28% of gross domestic capital formation, as also applicable to Brazil, as both are large countries with similar industrial structures. This yields the net investment index numbers in column (3).

The post-1950 capital stock series (index numbers normalized on a 1950 GDP base of 100) is then built up by adding each year's net investment figure from column (3) to the previous year's capital stock figure in column (1). Column (6) is derived from columns (4) and (5).

The figures of the annual increase in labor force (LABINC) in column (5) are based on the decadal growth rates implicit in Table 11.2(a) of Maddison et al. (1987).

TABLE 11

## Derivation of Capital-Labor Ratio

<u>Year</u>	(1) <u>Capital Stock (index #)</u>	(2) <u>Gross Investment</u>	(3) <u>Net Investment</u>	(4) <u>KSTINC (%)</u>	(5) <u>LABINC (%)</u>	(6) <u>CAPLAB (Index #)</u>
1950	260.00	12.80	9.20	NA		100.00
1951	269.00	16.20	11.66	3.50	2.90	100.60
1952	281.00	16.70	12.02	4.30		102.00
1953	293.00	17.30	12.46	4.30		103.40
1954	306.00	20.10	14.47	4.30		104.90
1955	321.00	18.70	13.46	4.70		106.80
1956	335.00	20.60	14.83	4.20		108.20
1957	350.00	23.00	16.56	4.40		109.80
1958	367.00	28.80	20.73	4.70		111.80
1959	388.00	33.60	24.19	5.70		114.90
1960	412.00	32.00	23.04	6.20	2.90	115.50
1961	435.00	29.00	20.88	5.60	2.70	115.00
1962	456.00	36.60	26.35	4.80		114.10
1963	462.00	40.40	29.09	5.80		115.20
1964	511.00	36.80	26.50	6.00		119.10
1965	538.00	37.00	26.64	5.20		122.10
1966	615.00	42.60	30.67	4.50		121.20
1967	646.00	45.30	32.62	5.00		124.00
1968	679.00	57.40	41.33	5.00		126.90
1969	720.00	64.20	46.22	6.10		128.20
1970	766.00	69.80	50.26	6.40	2.70	132.90
1971	816.00	81.40	58.61	6.60	3.90	136.50
1972	875.00	93.50	67.32	7.20		141.00
1973	942.00	112.90	81.29	7.70		146.40
1974	1,023.00	131.20	94.46	8.60		153.30
1975	1,117.00	147.70	106.34	9.20		161.40
1976	1,223.00	149.50	107.64	9.50		170.40
1977	1,331.00	148.10	106.60	8.80		178.80
1978	1,438.00	158.80	114.30	8.00		186.10
1979	1,552.00	178.00	128.20	8.00		193.80
1980	1,680.00	187.40	134.90	8.30	3.90	202.30
1981	1,815.00	182.90	131.70	8.00	2.30	213.80
1982	1,947.00	171.30	123.30	7.30		224.50
1983	2,070.00	138.70	99.90	6.30		223.50
1984	2,190.00	141.50	101.90	4.80		239.30
1985	2,272.00	167.10	120.30	4.60		244.80
1986	2,392.00	NA	NA	5.20	2.30	251.90

The values in this table have been derived as follows:



Figure 2.1 Annual growth rates of GDP

Figure 2.2 Percentage increase in capital stock

Figure 2.3 Real wage index

Figure 2.4 Current account deficit as percentage of GDP

Figure 2.5 Percentage change in GDP deflator

Figure 2.6 Leamer endowment triangle.

<u>Region</u>	<u>Outputs Produced</u>	<u>Wage Rates</u>
I	A1, M1	w1
II	A1, A2	w2 > w1
III	A1, M1, M2	w3 > w1
IV	A1, M2, M3	w4 > w3
V	A1, A2, M3, M5	w5 > w4
VI	A2, M4, M5	w6 > w5
VII	A2, M5	w7 > w6 > w2

Figure 2.7 Leamer triangle for Brazil; factor endowment path (1940-87).

(WE = world endowment).

<u>Year</u>	<u>Capital/Man</u>	<u>Land/Man</u>
1940	0.42	1.53
1950	0.51	1.21
1960	0.63	1.41
1970	1.04	1.24
1980	2.04	1.23
WE	12	0.9

Figure 2.8 Actual (solid line) and fitted (dotted line) percentage change in real wages.

TABLE 12  
Endowment Ratios 1940-1987

<u>Years</u>	<u>Percentage Increase In</u>			<u>Percentage Change</u>	
	<u>Capital</u>	<u>Labor</u>	<u>Land</u>	<u>K/L</u>	<u>N/L</u>
I					
1940-50	41.00	22.00	1.00	19.00	-21.00
1950-60	57.00	33.00	50.00	24.00	17.00
1960-70	95.00	30.00	18.00	65.00	-12.00
1970-80	142.00	46.00	45.00	96.00	-1.00
1980-87	16.00	17.00	1.00	-1.00	-16.00
II					
1940				0.42	1.53
1950				0.51	1.21
1960				0.63	1.41
1970				1.04	1.24
1980				2.04	1.23
1987				2.02	1.03

REAL WAGE INDEX

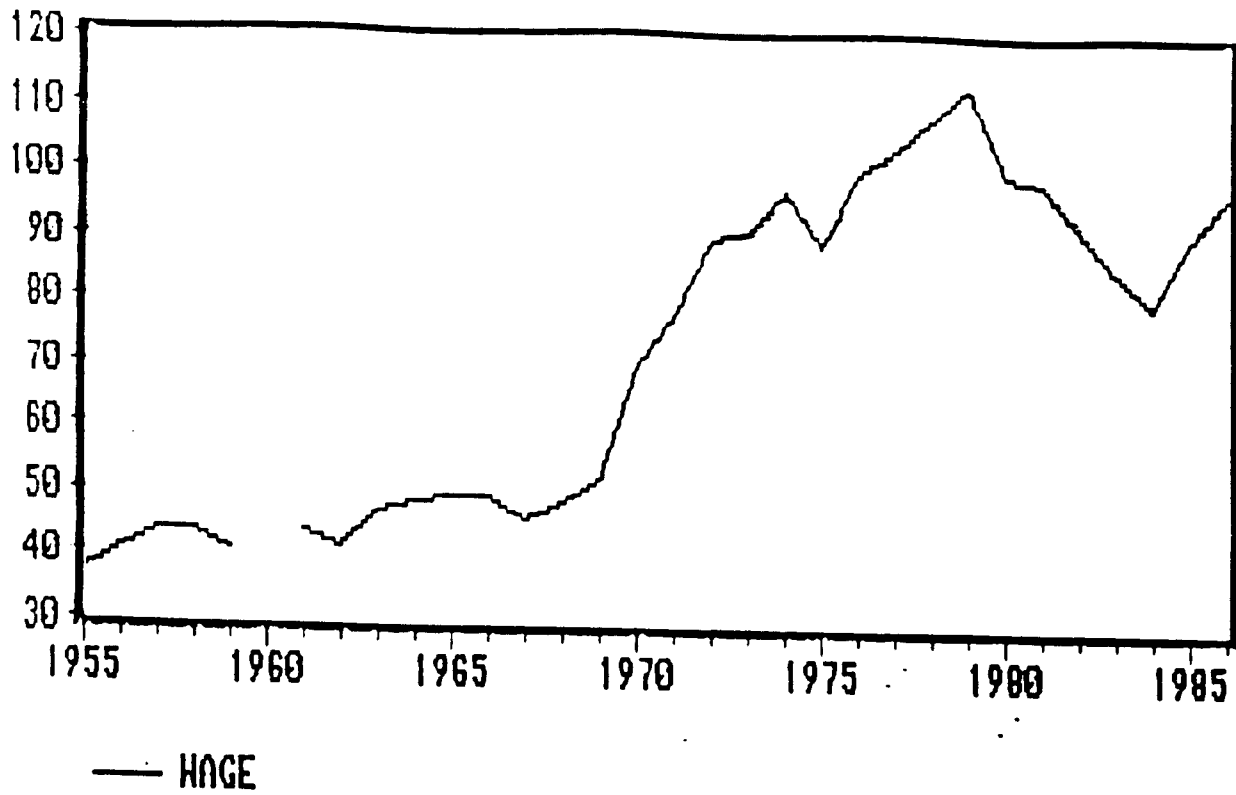


FIG. ~~1.4~~ 2.4

CURRENT ACCOUNT DEFICIT AS PERCENTAGE OF GDP

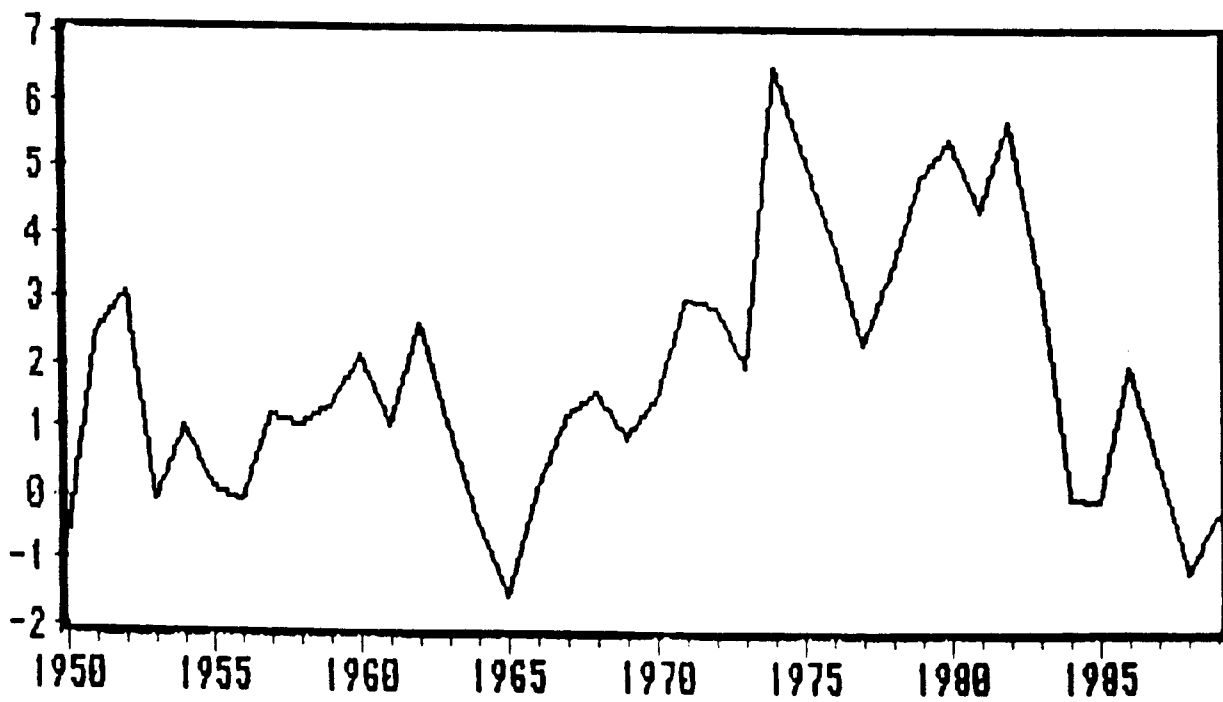


FIG. 1(a) 2 /

ANNUAL GROWTH RATES OF GDP

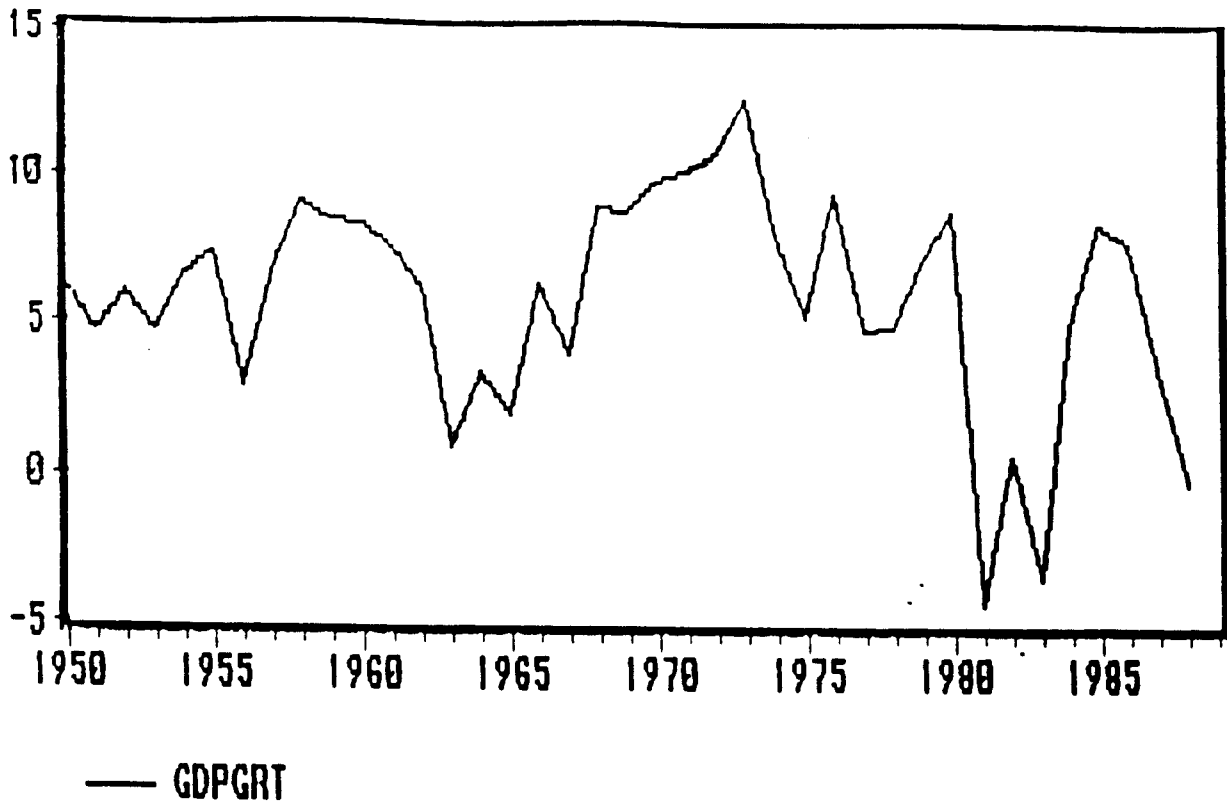
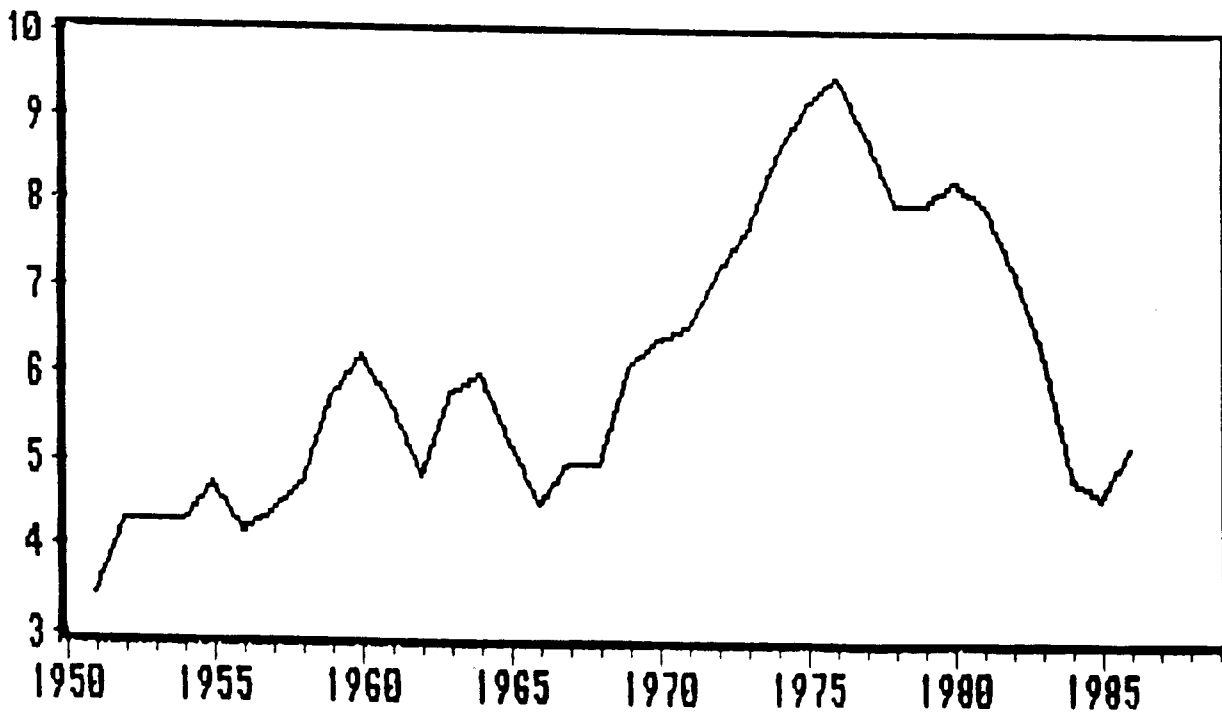


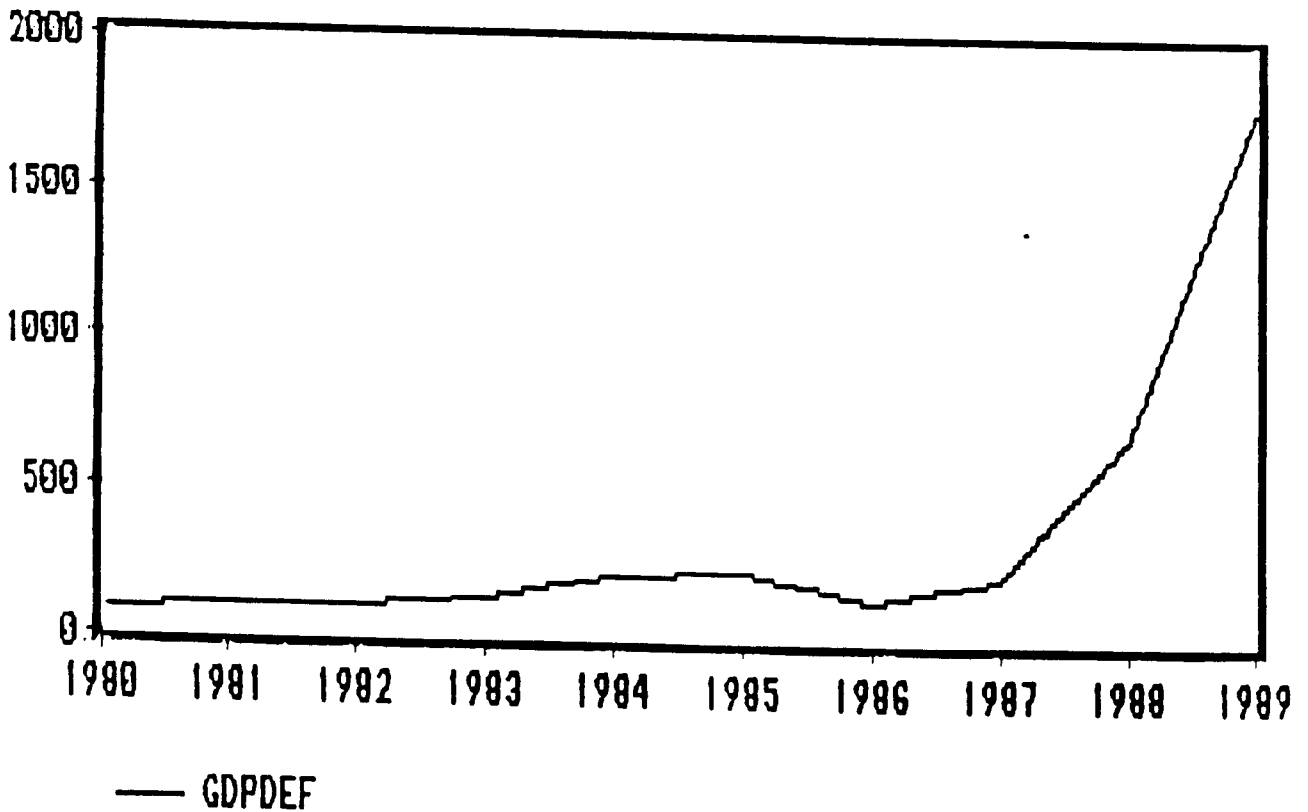
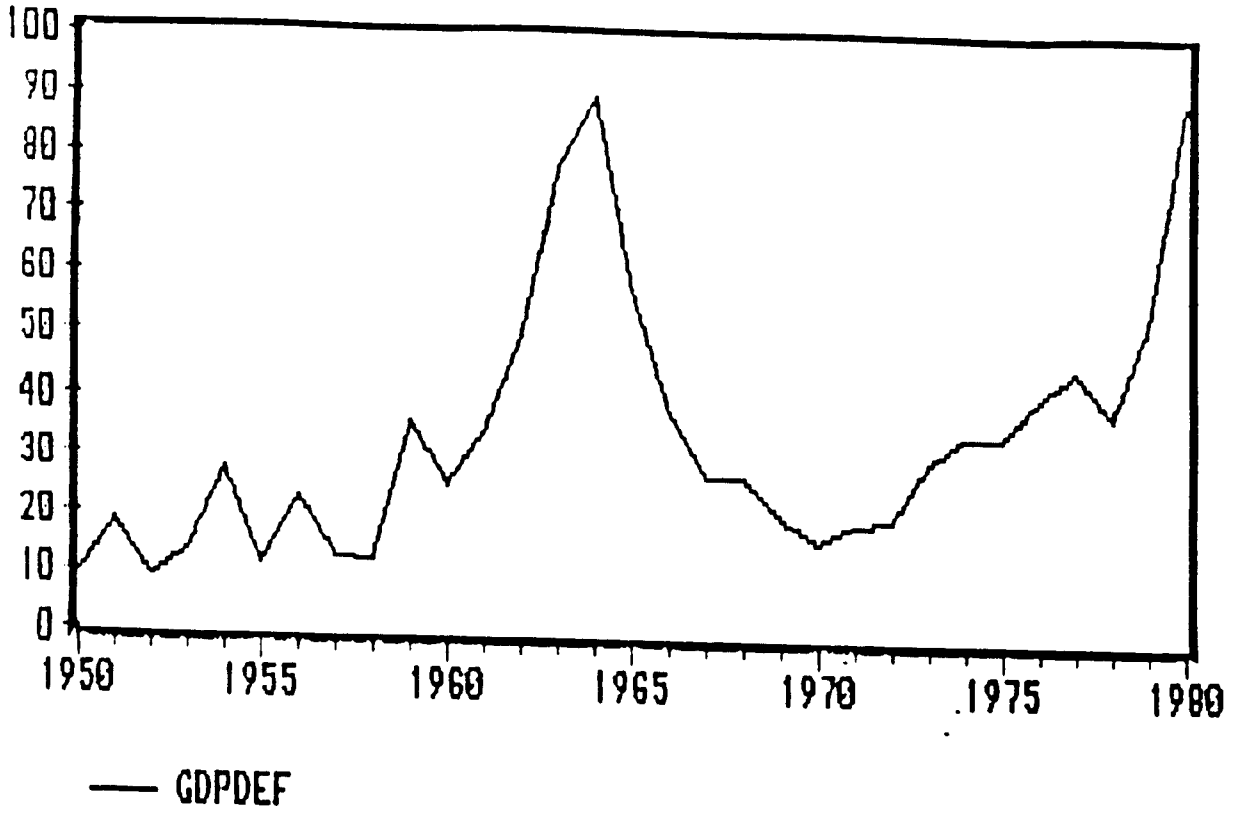
FIG. 1(b) 2.2

PERCENTAGE INCREASE IN CAPITAL STOCK

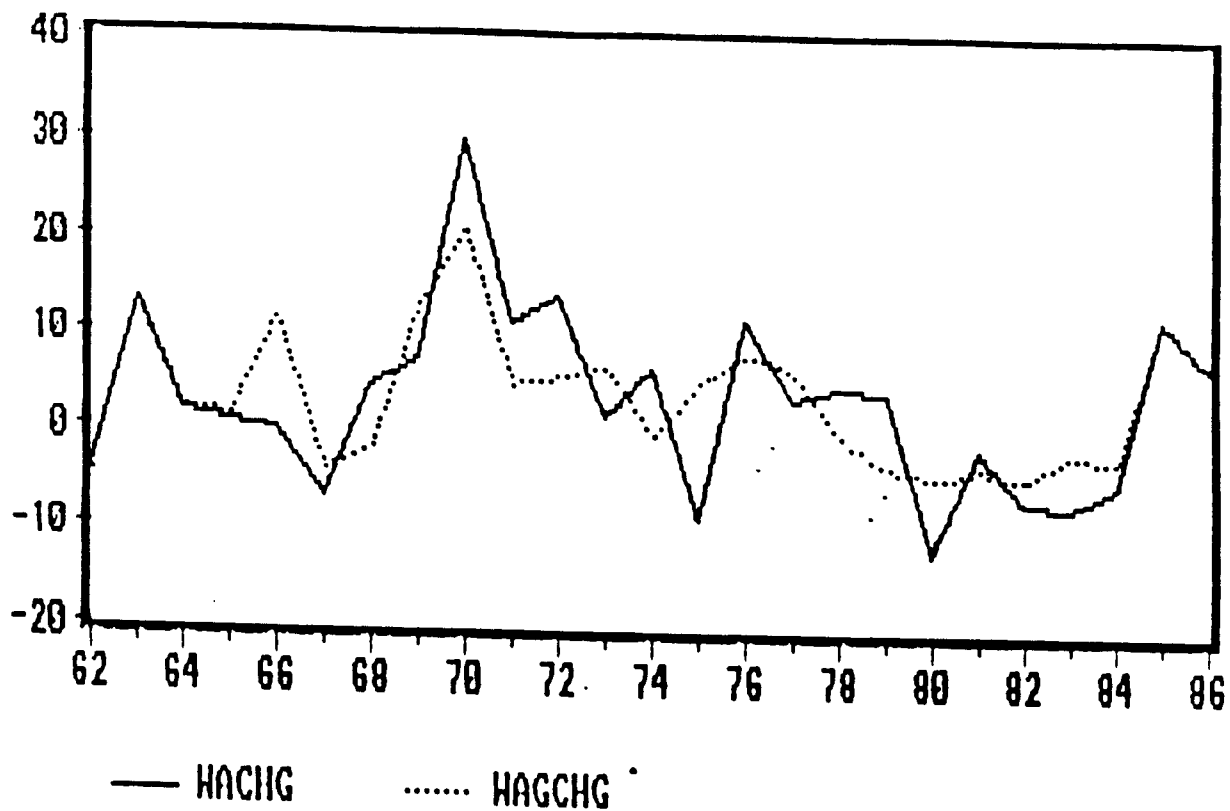




PERCENTAGE CHANGE IN GDP DEFLATOR



ESTIMATED AS ACTUAL REAL WAGE CHANGES



WACHG - Actual Percentage Change in Real Wages  
WAGCHG - Fitted Percentage Change in Real Wages

