

**Federalism Against Markets:  
Local Struggles for Power and National Fiscal Adjustment in Brazil**

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Abstract: What happens when a nation places its trust in market-oriented policies, but lays those policies atop federal institutions that address political, not market concerns? This question is especially important in a country like Brazil, where the states allocate a remarkable 35.3% of public expenditure. Decentralization provides the opportunity and the incentive for states to pursue divergent fiscal strategies, and lack of coordination among states increased dependence on external capital, increased instability, and undermined market-oriented adjustment. High degrees of coordination were neither so necessary nor so difficult under government-guided strategies, suggesting that market orientation may not be appropriate in developing countries whose political institutions must integrate diverse regional interests.

This finding provides a strong reminder that marketization requires more than simply getting political institutions out of the way. Previous literature argued that federalism limited political intervention by surrounding central governments with jealous regional governments, whose restraining influence was market-preserving. Nobody envisaged federalism as market-unnerving. Though scholars studied multi-level government, a lack of communication blinded fiscal federalism scholars concerned with wealth, and political federalism scholars concerned with power.

This study joins political federal and fiscal federal traditions in the case of Brazil in the 1990's, when center-right forces became dominant in the central government and imposed a market orientation on federal fiscal strategy. Decentralized political institutions provided room for maneuver by state leaders, however, and there was surprising variation in the willingness of states to follow central strategies.

Variations in local political struggle explain why similarly situated states pursued different fiscal strategies. In this study, statistical comparisons of electoral and budgetary data from all states demonstrate the connection between local political struggle and fiscal strategy. More fragmented and polarized local party systems diminish chief executive autonomy and limit fiscal choices. The study offers lessons about party systems in federal countries, clarifies the characteristics of democratic policymaking, and questions the advisability of market orientation in large, developing countries.

In January 1999, consistent balance of payments deficits made it impossible to maintain an overvalued exchange rate, and Brazil devalued its currency. The crisis demonstrated the fragility of Brazilian macroeconomic strategy, which depended on restrictive monetary policy to counterbalance fiscal laxity. The loose fiscal model came not from federal negligence, but from sub-national governments that failed to follow the market-oriented path charted by the central government. Though some governments toed the line, several maintained government-guided strategies marked notably by the debt default of two prominent states just prior to the devaluation. The current study employs pooled, time-series analysis of state fiscal decisions to demonstrate that uncooperative fiscal federalism follows from autonomous political dynamics in each state. The analysis demonstrates that states are less likely to converge on a market orientation when state elites face coordination problems in fragmented party systems or when a strong Left polarizes political competition.

These local dynamics gain relevance because Brazil's political federalism is decentralized. Military leaders prior to 1985 and democratic leaders afterwards reinforced a decentralized system of representation in the party system. The system served to divert political conflict to the local level and appease regional elites, and it created autonomous local party systems that were shaped by local political dynamics as opposed to national ones. Some states developed fragmented and polarized party systems while others developed centrist and cohesive ones.

The current study will examine how local party system characteristics affected fiscal policy choices. The chief argument to be tested is that more fragmented and

polarized party systems bound the hands of local leaders and forced them to depend on coalition partners in order to pass legislation. In these states, the fact that policymaking depended on negotiation and bargaining limited the kinds of policies likely to be passed. Market-oriented policies, which required a large and drastic change from previous policies, were especially difficult, especially for states with fragmented and polarized party systems where governors needed the extra padding in their budgets to purchase support from coalition partners. On the other hand, some states had cohesive and centrist party systems, and the chief executive had little difficulty in passing legislation. These governors were able to mirror central government strategies regardless of the difficulty of the policies, and market orientation was possible in these states.

Market orientation was difficult precisely because of the kind of changes it required. It had been relatively easy for states to mirror the development strategy of the central government when that strategy had been a government guided one. States were flush with funds, and they were encouraged to use fiscal policy to mobilize resources, intervene in the economy, and shift the distribution of resources. Market-oriented adjustment trimmed the fat from state budgets, and asked states to shrink the size of government, retreat from economic intervention, and end corporatist or clientelist approaches to interpersonal distribution.<sup>1</sup> These policies damaged organized interests and threatened the support bases of potential coalition partners, something leaders in fragmented and polarized states could ill afford to do. States with high levels of conflict in their party systems were the ones that maintained government guidance, even as the

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<sup>1</sup> Sallum, jr. (2000) describes this process as the victory of neo-liberal fundamentalists over neo-liberal developmentalists at the national level.

center urged them to switch to a market orientation.

This argument rests on local political dynamics, an approach that refutes a number of other popular economic, cultural, and political theories. For example, the market-oriented choice might result from the level of wealth in a given state, in which rich states preferred marketization because they were more likely to succeed under a market-oriented model. Alternatively, cultural explanations might argue that higher levels of modernization create an affinity for market operations. Most significantly, the local politics argument contradicts a popular “soft budget constraint” argument, which suggests that central government inability or unwillingness to impose discipline leads to subnational fiscal laxity (Dillinger, 19995; Dillinger and Webb, 1999).

Pooled, time-series analysis of the party systems, demographic characteristics, and fiscal decisions of the states is used to test the importance of conflict in local party systems as an explanation for policy decisions. The analysis demonstrates that fragmentation and polarization are stronger explanations than other political explanations, economic explanations, and cultural explanations, even when one divides market orientation into stabilization, allocation, and distribution components. In most nations, one would be surprised to find local political systems so important, but the trend becomes understandable when one considers the vast diversity across states that characterizes the Brazilian party system.

### **Brazilian State Party Systems**

States in Brazil were the territorial entity that organized voter identification with candidates and were the level of government at which parties organized for elections.

Military interventions in the party system, such as eliminating elections for national chief executives while maintaining elections for local officials from 1964-1985, weakened national parties, and encouraged state party organizations to rise in importance (Fleischer, 1984: 3-10). Following the transition to democracy, national leaders reinforced state-level party organizations, for example by allowing voters to split their ballot across elections and eliminating the national threshold for attaining representation in congress (Mainwaring, 1999: 100-109, 248-257).<sup>2</sup>

These forces for a decentralized party system forced parties to organize their activists, their supporters, and their candidates at the local level, to wage different political battles across the states. At first, it appeared that a few of the parties that formed under the military would provide the basis for an institutionalized national party system. The main opposition to the military, the PMDB, won 22 of 23 governor races in 1986 and identified itself with a broad, centrist portion of the electorate. The PT also offered hope of an institutionalized future, as it emerged from opposition unions and with strong links to popular sectors. Nevertheless, the decentralizing pressure of electoral laws and the legacy of weak national parties made state party systems the basis of national political representation. The result was that state party systems came to reflect local dynamics rather than broader national issues. David Samuels (2000) tests the relative importance of state party systems against the relative importance of national party systems from 1946 through 1994, and finds that state party systems are more important. Ames shows that even politicians operating at the national level are directed

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<sup>2</sup> There are also socio-economic differences across Brazil that encourage parties to differentiate their appeals in different regions.

towards local interests, as they sponsor amendments that shift resources to their electoral bailiwicks and base their policy decisions on a desire for local political support (Ames, 1995; Ames, 1994).

As they responded to local dynamics, state parties and party systems took on different characteristics in different states. Conflict was divisive and ideological in some states, and personalistic and subdued in others.<sup>3</sup> For the purpose of achieving the coordination necessary for making policy, the most important differences across the state party systems was the level of fragmentation and polarization in state party systems. Fragmentation in the party system exacerbated coordination problems among elites as it forced policymakers to patch together coalitions of multiple partners in order to get anything through the legislature. Polarization suggested that there was a wide gulf between parties, and they would be difficult to bring together in a coalition.<sup>4</sup>

In addition to the immediate requirements of forming coalitions to pass legislation, party systems reflect and perpetuate deep cleavages within society, which also vary across Brazil. Some states (for example, Rio Grande do Sul) have been torn by internal civil war (Love, 1971), while others have been dominated by single parties or powerful individuals (on Bahia, see Sampaio, 1978). These differences in local political patterns are both reflected and perpetuated in the number of parties that compete for office and the ideological distance that separates them. Rather than attempting to explain

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<sup>3</sup> It is notable that diversity in party systems is not uncommon in large, federal democracies. V.O. Key's classic study described the vast diversity that existed across U.S. state party systems despite the appearance of bipartisan patterns of political conflict as existed at the national level (1950). Paul Brass studies the impact of sub-national party systems on regime stability (1977).

<sup>4</sup> Fragmentation and polarization are widely used measures to characterize party systems, especially when characterizing the degree of conflict and the difficulty of overcoming conflict. Some of the most

the different kinds of party systems, the current study takes state party systems as its starting point and measures their effect on fiscal policy choices.<sup>5</sup>

**Measuring State Party Systems.** State party systems differed from each other in their level of fragmentation and polarization. An indicator for fragmentation is relatively easy to choose, as there is greater agreement within the literature, and the Laakso-Taagepera indicator of effective number of parties is the most widely used. Indicators for polarization are less easy to choose, though a good proxy can be found in measures of support for the Left. Both indicators demonstrate wide variation across the states.

All measures of fragmentation make an attempt to count the number of parties that compete in a given party system without inflating their count by including meaningless small parties or depressing their count by over-emphasizing large parties. The measures of the numbers of parties, such as fractionalization (Rae, 1967), concentration (Hirfendal, 1950), or hyperfractionalization (Kesselman, 1966; Wildgen, 1971), differ in the weights given to parties of different sizes or the range that scores can take.<sup>6</sup> The Laakso-Taagepera index provides a count of the ‘effective number’ of parties that is easily interpreted and that minimizes the importance of small parties. The formula for the Laakso-Taagepera (1979) fragmentation is  $1/SP_i^2$ , for  $i=1$  to  $n$ , in which  $P$  is the percent of votes or percent of seats gained by each party. Graph 1-1 shows the range of effective number of parties competing for each state legislature in 1990. There was a low

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influential arguments for using these concepts were put forward by Giovanni Sartori. See for example, (1996, 1970, and 1970: 132-142).

<sup>5</sup> Many people have spent time looking at the origins of different party systems, and explanations have varied. Some focus on institutional factors (for example, Duverger, 1954), others on social cleavages (for example, Lipset and Rokkan, 1967), and other on historical values (for example, Panebianco, 1988).

<sup>6</sup> Characterizing fragmentation in the states was largely robust to using different indicators. Different indicators changed the range of variation of state scores but the order of states largely remained the same.

of 1.8 in Rio Grande do Norte, where there was basically a single dominant party, to a high of 12.2 effective parties in the Federal District where competition was particularly fragmented.

---Insert Graph 1-1 about here---

Measures of polarization are in much greater dispute in the party systems literature. Part of the dispute emerges from the fact that the concept is itself poorly defined, and is used in different ways depending on the theory to be tested. A few examples are the characterization of polarization according to the existence of “anti-system parties” (Sartori, 1976) or using expert and voter surveys to place parties along dimensions such as “ultra-Left to ultra-Right” (Laver and Hunt, 1992: 133). Here, where the concept of polarization is specifically applied to the policymaking process in the legislature, the measure chosen is support for the Left, which is the same measure used by Kaufman and Haggard (1992) in their study of the likelihood of adopting market-oriented economic reforms at the national level. Groups on the Left in Brazil are the most resistant to forming coalitions with ideological opponents and are the most opposed to market orientation. Graph 1-2 demonstrates the diversity in support for the Left in 1990 State Assembly elections across Brazil, which ranged from a low of 5.4 percent in Piaui to a high of 40.8 percent in Rondonia.<sup>7</sup>

---Insert Graph 1-2 about here---

Different party systems across the states limited the ability of state chief executives to follow changes in economic strategy by the central government. Where

party systems were more fragmented and polarized, chief executives would have greater difficulty patching together the coalitions necessary to adopt new policies. Where party systems were more cohesive and centrist, chief executives would have less difficulty passing legislation. In this sense, fragmentation and polarization both reflect the difficulty of coordinating elites. Fragmentation focuses on the fact that coordinating numerous parties would be more difficult than coordinating simply a few. Polarization focuses on the fact that coordinating parties that were ideologically distant from each other would be more difficult than coordinating parties that were close to each other.

It makes sense to test these aspects of coordination separately because polarization also measures another difficulty faced by chief executives that wish to adopt market orientation. The chosen indicator of polarization measures the strength of Leftist opposition. As a result, it measures both the difficulty of coordination, as mentioned above, and also the existence of a vocal opposition to market-oriented policies. In the context of market-oriented adjustment, a strong Left meant more than simply difficulty in coordination, it also indicated the existence of a strong constituency for government guidance.

This aspect of polarization is important because the switch from government guidance to a market orientation was a major change. When the central government switched to a market orientation it asked states to follow along, which meant that governors would have to cut their budget deficits, limit the size of state interventions in the economy, and shrink corporatist and clientelist practices. Governors facing

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<sup>7</sup> Support for the Left is defined by adding the percent of the vote for parties whose national representatives largely identified themselves as Left in prior studies (Power, 1990 and Rodrigues, 1987 as

fragmented and polarized party systems would be unable to mirror central government strategies. Before testing the statistical relationship between party systems and fiscal choices, it makes to look more closely at the policies and policy changes that states were being asked to follow.

### **Brazilian Fiscal Strategies**

Though Brazil resisted longer than other Latin American countries, in the 1990s its national government switched its macro-economic strategy from government guidance to a market orientation. The switch implied changing stabilization, allocation, and distribution strategies, and depended on cooperative behavior by the states.

**Brazilian Government Guidance.** Under the 1964-1985 military regime, Brazil's macro-economic strategy passed through a long period of debt-financed guidance, in which government viewed itself as an active participant and at times substitute for the market. In stabilization policy, government fiscal policy accelerated national capital accumulation. The strategy rested on the belief that the economy was operating at less than full capacity, and deficit and debt were acceptable mechanisms to increase the productive use of national resources (Bresser Pereira, 1996:20-22). To finance these policies, government turned to loans, finding capital markets flush with euro-dollars in the late 1960s and oil profits in the 1970s. With low unemployment and growth rates averaging above seven percent, there was little reason to suspect the strategy would end.

The linchpin of government guidance was an allocation strategy that emphasized government economic activism. Rooted in the belief that market allocation of resources was at times second best, the public sector took on roles as financier, producer,

marketer, and consumer. Debt and forced savings programs shifted investment capital to the public sector, which directed it towards multi-year industrial and agricultural plans.<sup>8</sup> Government protected, subsidized, and/or directly invested in areas that national or international capital neglected, increasingly coming to dominate intermediate inputs and energy. Even when the strategy appeared economically unjustifiable in the late 1970s and early 1980s, generous international loans allowed continuation (Leff, 1982).<sup>9</sup>

The growth of government under guided strategies offered resources that the military could direct towards regional distribution and distribution across classes. The primary objectives of distribution policy were to purchase sufficient political support to sustain the regime while providing surplus capital to those classes that would invest it. Along regional lines, the regime managed distribution of wealth by concentrating import substitution deepening investments in São Paulo while distributing capital to regional development poles, exchanging less advanced lines of production for support from regional elites.<sup>10</sup> In handling distribution across classes, the regime maintained a regressive policy of shifting wealth towards the upper classes through constraints on the growth of wages and mandatory worker contributions that were used for investment. Inflation eroded worker salaries, and indexation only partially offset the losses.

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<sup>8</sup> Forced savings programs such as the FGTS (Guaranteed Fund for Time in Service) and the PIS-PASEP (Program of Social Integration – Program of Public Servant Assistance and Education Salary) mobilized close to 50% of federal tax receipts.

<sup>9</sup> For more complete discussions of Brazilian fiscal and monetary strategies during the 1970s, consult Baer (1995), Skidmore (1988), Bresser Pereira (1996).

<sup>10</sup> Haddad (1999) argues that Brazilian development followed the pattern predicted by Myrdal (1957) and Hirschman (1958), in which poles of growth concentrate wealth geographically during early stages of development and only later spread to other regions. Haddad demonstrates that government regional distribution strategies exacerbated concentration during the 1930s to 1950s, but promoted regional equalization during government-guidance strategies as practiced in the 1970s and 1980s (Haddad 1999: 1-20).

Nevertheless, corporatized sectors did moderately better than other sectors, which received none of the entitlements built into most formal contracts. For those in clientelist networks, a patrimonial bureaucracy extended benefits to local elites and citizens in the form of public employment and government services (Nunes, 1997; Uricoechea, 1980).

International conditions changed with the debt crisis and a volatile international capital market in the 1980s, but Brazil attempted to maintain a government-guided model. Despite a sustained recession from 1981-1983, debt-financed investments undertaken by the military regime matured during the 1980s, and remaining capacity in capital goods, intermediate inputs and energy propelled recovery. The growth potential created an illusion of sustainability, and leaders chose the politically expedient strategy of attempting to grow out of fiscal crisis (Sola, 1993; Castro and Pires de Souza, 1985; Hirschman, 1986). Debt-financed growth evolved into debt- and inflation-financed growth, with government financing itself partially by inflating away its obligations. In allocation, key interest groups blocked any attempts to withdraw government from the economy, as workers protected their jobs, government bureaucrats protected their power, and politicians protected their electoral patronage. The strategy offered the same distributive benefits as before, first to military leaders wishing to avoid their exit from power and later to democratic leaders eager to build support bases. On the other hand, inflation imposed serious costs on the poor, as their assets were especially unprotected from losing value.<sup>11</sup> The guided strategy became unsustainable in the long run, as

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<sup>11</sup> Brazil had one of the most complex indexation schemes, in which everything from wages and contracts to bank accounts were adjusted for inflation. The rates of indexation became took on their own distributive significance, as sectors and interests struggled over the rates at which their assets would be adjusted for inflation (Sola, 1998).

international capital became unwilling to finance Brazilian development, and government faced increasingly high capital costs. The debt burden eroded fiscal capacity, and inflation spiraled towards hyperinflation (Moura, 1990; Bresser Pereira, 1994).<sup>12</sup>

**Brazilian Market Orientation.** After the crisis accelerated in the late 1980s, Brazil turned to a more orthodox fiscal strategy, shifting allocation and distribution policy with the Collor Plan of 1990, and achieving a successful stabilization strategy with the Real Plan of 1994. Unlike inflation plans that emphasized orthodox monetary factors alone, Brazilian plans interpreted inflation as the result of inertial factors as well. The inertial component included a theory of inertial inflation, in which a heavily indexed economy built inflationary expectations and price increases into many goods and contracts, driving up prices independent of monetary policy (Bresser Pereira and Nakano, 1987; Arida and Resende 1984; Dornbusch, Sturzenegger, and Wolf, 1990; Bresser Pereira, 1996). Brazil attempted several stabilization plans, each including orthodox fiscal and monetary restraint, combined with a shock to alter inertial expectations. Twelve plans failed, some because they backed off of the orthodox fiscal and monetary measures, while others did not sufficiently readjust inflationary expectations. Chart 1-1 portrays the historical development of the plans, and describes their key components and results. The plans included five orthodox plans, six heterodox plans, and the first plan was a combination of populist and monetarist measures by the military. With each plan, stabilization grew more complicated, as expectations of future inflation became more

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<sup>12</sup> A more complete description of Brazil's attempt to out-grow the debt crisis can be found in Castro and Pires de Souza (1985) or Sola (1998).

ingrained and became self-realizing prophecies. Each new plan had to induce a greater shock to alter expectations; with perhaps the most drastic effort being the Collor Plan option of freezing savings accounts in 1990. The Real Plan finally tamed inflation by temporarily disassociating the unit of exchange (Cruzado) from the unit of account and value (URV) and then introducing a new currency at the same time as it embarked on a series of fiscal reforms and maintained an overvalued currency and liberalized trade.

---Insert Chart 1-1 about here---

Once past the initial shock, the Real Plan maintained the stability of the currency by applying a stabilization policy that depended on the market to set levels of economic activity, applying orthodox monetary measures and balanced fiscal policies. The monetary policy maintained an overvalued exchange rate, fixing the value of the Real within an artificially low exchange rate band. Overvaluation boosted imports and depressed exports, quickly creating a balance of payments deficit that exacerbated government dependence on external capital. To keep capital flowing in, the Central Bank maintained high interest rates and excess foreign reserves, paying ever more in debt service and eventually taking a toll on the economy. After an initial boom responding to the defeat of inflation, the economy entered recession, eating away at fiscal receipts. To maintain international credibility and the consistency of the market-oriented model, government sought fiscal balance by reducing expenses, though it could not cut the fastest growing item, debt service. As a result, government expenses became

increasingly dominated by payments on the debt, impinging on fiscal capacity to undertake any but the most market-oriented distribution and allocation strategies.<sup>13</sup>

The new allocation strategy withdrew government from the economy. Though Brazil remained interventionist longer than most, it liberalized trade significantly and began privatizations after 1990.<sup>14</sup> Industrial policy directed towards multi-year plans was replaced by industrial policy guided by market incentives. Government owned enterprises were sold or closed, and government run financial institutions were privatized. Since 1990, total proceeds from privatization, including transferred debts was \$36.6 billion, led by \$8.2 billion in steel, \$6.9 billion in mining \$5.6 billion in electricity and \$4.0 billion in oil and gas (BNDES, 2000)

The distributional impact of market-oriented policies was felt in the location of investment, and regional inequality began to increase once again.<sup>15</sup> The market-oriented strategy ended the easy flow of favors doled out to regions and sectors, emphasizing distribution through market mechanisms, with government intervention only in instances in which the market did not meet minimal basic needs. The largest impact on distribution across classes came as a result of defeating inflation, which had disproportionately eroded the incomes of the poorest (Mello, 1998). Whereas government guidance used corporatism and clientelism to distribute wealth across individuals, market-oriented distribution policy allowed state intervention only in

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<sup>13</sup> The tendency for debt service to crowd out other fiscal priorities had begun with interest rates raised in response to the debt crises of the 1980s. The Real Plan merely accepted the trend, and built high interest rates and the dependence on external capital into the stabilization plan itself (Singer, 1999).

<sup>14</sup> Average tariffs in Brazil in 1989 were 32%, and they fell to 12% by 1997 (World Bank Development Indicators CD-ROM, 1999)

benefits targeted to the least well-off regions or individuals. Though applied in a universalistic manner, transfers to meet distribution goals allowed some room for clientelistic practices, and national politicians used discretion over transfers as leverage to extract support from regional elites. The universalistic nature of distribution policy also allowed greater flexibility to meet fiscal restraint goals, as changing formula for distribution or withholding discretionary benefits board could significantly assist in efforts at fiscal restraint.<sup>16</sup>

### **Uncoordinated State Fiscal Strategies**

The decentralization of resources that characterized Brazilian federalism, even under the relatively centralized military regime, meant that the central government depended on fiscal cooperation from state governments to achieve its fiscal strategy goals. Under government guidance, states were flush with funds and were encouraged to make use of them to implement government-guided stabilization, allocation, and distribution policies.

**Government Guidance and Convergence.** Under the military regime, the national government played an active role in mobilizing and allocating resources in the economy, and state governments played a secondary role. Nevertheless, during the 1970s, easy access to international capital, federal guarantees, and low interest rates gave states an

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<sup>15</sup> Haddad (1999: 17-20) makes the argument that regional inequalities, which had decreased during government guidance, began to increase after 1990, largely a result of liberalizing trade regulations that favored developed regions that could compete internationally.

<sup>16</sup> The Brazilian case suggests that assuming a trade-off between distribution and fiscal restraint is inaccurate. The relationship is obviously more complex, leading to competing evaluations of Cardoso's record on redistribution in which the Right focuses on the immediate impact of defeating inflation and the Left focuses on making basic needs provision a discretionary portion of public spending. In the U.S. case, see a similar argument in Ellwood and Patashnik (1993), who point out the benefits of pork-barrel

opportunity to participate in the government-guided strategy, and many found it both easy and advantageous to accompany the federal government stabilization, allocation, and distribution strategies.

States pursued stabilization strategies that included fiscal expansion funded by indebtedness. The strategy centered on state banks that were created as commercial banks but evolved into development banks that could borrow on international capital markets. State governments, as owners of the banks could substitute loans for tax revenues, and by 1995, state bank debts had grown to \$95billion.<sup>17</sup>

When inflation appeared as a tool for finance, states took advantage of this source within their stabilization strategy. Managing their finances “from the mouth of the cash-box”, they allowed their obligations to depreciate while collecting revenues in real values. “Receipts” obtained through monetary or exchange adjustments averaged 33% of current receipts over the period 1986-1994 (calculated from National Treasury Accounts). State banks also reaped the benefits of inflation, delaying payments and earning interest on temporary funds they held as intermediaries, such as state taxes and state enterprise payments.

State allocation policy mirrored the federal government emphasis on state intervention to accelerate accumulation and promote import-substituting industrialization. State banks again played a central role, as states used development

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spending as a tool for fiscal control. In periods of restraint, pork can be halted, while entitlements are much more difficult to restrain.

<sup>17</sup> State banks obtained 38% of their capital through borrowing in 1988-1990, with 63-81% of their loans going to the state governments, who received only 2-5% of their total from private banks (Santos, 1996: p. 284). State bonds were a poorly regulated area, allowing states to affect the monetary base through printing quasi-money.

banks to expand financial capacity and invest heavily in infrastructure. The general strategy during the second national development plan (PND II) depended on states to facilitate regional poles of growth that would produce industrialization outside of São Paulo and the developed South (Skidmore, 1988).

State distribution policy was also in step with central government practices. Many states benefited from the regional component of national distribution policy, receiving funds to address local development programs. The state approach to distribution across classes followed regressive central government practices, emphasizing clientelism, public employment, and privileging workers in industries regulated by systems of corporatism.

States largely followed central government fiscal strategies during government guidance. The task was relatively easy given that states had ample funds, and the policies entailed by government guidance imposed few harsh choices on local leaders. Despite being easier, state convergence on national strategies was also less necessary, as the central government was already pursuing an active role in the economy that dwarfed the importance of state actions. The need for convergence increased under the switch to market orientation, when the central government limited its role in the economy and asked states to do the same. The main source of capital was to be domestic and international private capital, which would enter only if Brazil presented a coherent and stable domestic fiscal environment. Paradoxically, the increased need for coherence coincided with market policies that were more difficult for states to follow, and many

diverged. The result was increasing inconsistency in the fiscal model just as greater consistency was necessary.

**Market Orientation and Divergence.** When the central government switched to a market orientation, it called on states to limit their deficits, shrink their interventions in the economy, and curtail corporatist and clientelist practices. The switch exacerbated a fiscal crisis that had already affected states, and involved painful policies that many states were unable to follow (Amaral Filho, 1991). When the central government began policies of fiscal restraint to attack inflation, the state resource base suffered from recession and cuts in transfers, and the more comfortable period of debt and inflationary finance under government guidance came to an end. When the economy rebounded temporarily following the Real Plan, states received some boon from sales taxes increases, but continued high interest rates increased the burden of debt stock amassed during the government-guided period.

State debts were a recurring problem, but even they were insufficient to force states to adjust their finances. Repeated bailouts and generous terms from the center provided incentives to delay adjustment (Dillinger, 1995). Table 1-1 demonstrates that Senate resolutions attempted to turn the screws on the states, for example by limiting the extent to which states could use anticipated budget receipts to pay off debt stock or debt service. Still, these resolutions required Senate action to be enforced, and governors often found political allies in the Senate who were willing to forgive violations of the limitations on debt in exchange for political favors.

---Insert Table 1-1 about here---

Though loose policies with respect to state debts provided room for states to avoid converging on the center's macro-economic strategy, other actions attempted to force states into line. The Social Investment Fund, a provisional decree shortly after the Real Plan retained 15% of tax revenues constitutionally destined to the states. The decree, meant as a provisional measure to boost social spending, was repeatedly extended in time and increased in size, with the funds used to fill fiscal holes in federal accounts. The decrease in revenues placed pressure on states to adjust their fiscal strategies, and the center tightened the constraints by legislating mandatory maximums in state personnel.<sup>18</sup>

Despite the severity of crisis, decreases in available resources, and federal pressure, many states were unable or unwilling to follow market-oriented stabilization strategies in the 1990s. Table 1-2a and 1-2b show that as states failed to follow market-oriented stabilization, their debts began to grow as a proportion of total public debt.

---Insert Table 1-2a and Table 1-2b about here---

States were also unable to follow market-oriented allocation strategies. The policies required were cuts in operational expenditures and a minimal government intervention in the economy.<sup>19</sup> For its part, the central government undertook privatization programs and cut government intervention in consumption, employment, and investment. Table 1-3 demonstrates that states moved in the opposite direction, growing by 24.4% in allocation activities while central government shrunk by 3.3%.

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<sup>18</sup> The center passed the Lei Camata, which was to limit state and municipal expenditures on personnel to less than 60% of liquid receipts. The deadline to meet this ceiling, originally set for 1998, has been extended at each expiring, and currently stands at 2002.

Though the federal government sought to impose a market-oriented allocation strategy on states by starving them of funds for investment and blocking their capacity to take on loans, states found innovative ways of participating in the economy. One example was the use of tax incentives to attract investment and promote certain types of production (Varsano, 1997).

---Insert Table 1-3 about here---

The states also became uncooperative when it came to distribution strategies under the market orientation. Though the center began to roll back entitlements associated with corporatism and public sector employment, states held onto previous institutions. Tables 1-4a demonstrates that the federal government replaced corporatist and clientelist practices with more universal programs of social spending. States maintained government-guided mechanisms of distribution such as public employment. These practices showed up in the percent of their receipts that states spent on personnel, displayed in Table 1-4b and 1-4c.

---Insert Table 1-4a, Table 1-4b, and Table 1-4c about here---

The center applied attractive carrots and strong sticks in seeking cooperation from the states, offering negotiated grants and transfers of resources, and imposing federal intervention in state management. Despite these powerful tools, the states maintained significant control over local allocation strategies. They had been largely willing to cooperate during government guidance but behaved uncooperatively during marketization.

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<sup>19</sup> Operational expenditures are current expenditures plus investments and interest on the debt, but not retirement of debt stock.

An initial conclusion from considering the evidence above would be that states simply have greater difficulty following market-oriented policies than government-guided models.<sup>20</sup> This general conclusion belies a more complex process. Looking more closely, some states did converge, mirroring the center when it pursued government guidance and subsequently making the adjustment to market orientation. Others diverged. Understanding the different capacity or willingness to converge requires comparison across states, in addition to comparison across time.

### **Decentralized Political Federalism and Divergent Fiscal Strategy**

Fiscal strategies that differed across states and between states and the federal level can be traced to Brazil's political arrangement, in which parties and party systems are decentralized and oriented towards the local level. Decentralized political federalism led state leaders to face local political pressures first, turning to national fiscal demands only second. In cases in which state leaders had to coordinate multiple local interests or where they faced ideological polarization, they had difficulty with rapid changes in policy. The task was further complicated when the central government asked states to converge on a particularly difficult strategy, such as fiscal restraint and structural reform entailed by a market orientation. Pooled, time-series analysis of the states confirms the central hypothesis here, which is that decision-makers in certain parts of Brazil were equipped with local party systems that allowed them to impose policies with little opposition, and they could use this autonomy to converge on the shifting national development model. Other governors were faced with local political questions that were

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<sup>20</sup> Gramlich (1987) finds different results when he considers the U.S. states. Unlike Brazilian states, U.S. states appear to cooperate quite consistently, converging on the counter-cyclical efforts of the central

much more delicate, and they could not muster the political support coalitions necessary to adopt market orientation. More specifically, fragmentation and polarization among local elites made it less likely that a state would cooperate with the national fiscal strategy.

Pooled, time-series analysis applied to state characteristics treats the states as a panel of cases observed over various governor periods. The regression tests the impact of local political characteristics on fiscal policy choices, and it also tests the importance of a series of rival political, economic, and cultural explanations. The results highlight the importance of political fragmentation problems in local party systems and offer some support to the hypothesis that ideological polarization had an effect.

**Dependent Variables.** The model uses measures of stabilization, allocation, and distribution decisions in the states. For each area of fiscal policy, an indicator is chosen from fiscal data collected by the National Treasury Secretary from each of the states.<sup>21</sup>

Stabilization under market-oriented policies left levels of economic activity to the market, and states were expected to pursue budgetary balance to avoid altering the amount of money in circulation. The indicator chosen was the operational current surplus, which measures the current surplus (current receipts minus current expenses) after deducting the amount of debt the state retired in a given year. This focuses attention on flow characteristics of public finance that mark yearly changes in the degree to which government pumped money into the economy or withdrew money from the

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government and enhancing their impact.

<sup>21</sup> Though there is reason to suspect that states will misreport figures from their fiscal accounts, using data from a single national agency offers greater comparability and ease than attempting to use data from

economy. Measures of flow tend to be superior to stock measures, as they focus on what policymakers choose to do, and are less susceptible to forces beyond policymaker control, such as changing interest rates and inflation rates.

Market-oriented allocation policy called for states to minimize their participation in the economy to those areas stricken with market imperfections. Failure to adopt a market orientation meant that states continued their activist role in redirecting resources across economic purposes. Capital expenses include all outlays that contribute to benefits that will come in future years, such as investments and retirement of debt stock. The higher a proportion of their receipts that they dedicated to these purposes, the more they diverged from central government practices.

Market-oriented distribution strategy depended on the market to make most decisions about the distribution of wealth, with state responsibility only for those groups that the market ignores. Under market orientation, state interventions were meant to provide only basic-needs and to avoid clientelistic or corporatist practices. The chief social policy area of state activism is education, and the model measures distribution strategy with the outlays for education.<sup>22</sup> Chart 1-2 displays the three dependent variables that indicate market orientation with their indicators and their units.

---Insert Chart 1-2 about here---

**Explanations.** Two characteristics of local party systems, fragmentation and polarization, could complicate the policies required to converge on market-oriented

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multiple sources. The variety of data available across states was significant, and will be examined in more detail on a state-by-state basis in chapter four.

fiscal policies. Market-oriented policies called for rapid and drastic policy changes, for which governors would have to muster a political coalition. Higher levels of fragmentation, indicated by the effective numbers of parties, forced governors to coordinate a greater number actors, a much harder task than when there were only a few large parties to coordinate. Higher levels of polarization, indicated by the presence of a strong Left, meant that governors had to coordinate actors with distant ideological preferences, a much harder task than when all parties occupied a similar ideological space. The existence of a strong Left created additional coordination problems in its impact on executive-legislative relations. A strong Left would oppose Centrist and Rightist governors as legislative opposition, and Left governors never had a legislative majority when in government.

A strong Left created additional problems that were more programmatic than coordination issues, and these programmatic issues became more relevant when the national government switched to market orientation. Under government guidance, the Left was at least willing to acquiesce to fiscal strategies that were skeptical of the market. By contrast, under market orientation, the Left would oppose market oriented efforts by chief executives wherever possible.

To obtain a single level of fragmentation, the model uses the effective number of parties competing for state assembly. The effective number of parties uses the Laakso-

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<sup>22</sup> The functional breakdown of Brazilian budgets combines education spending with culture spending. In reality, most of the resources within this budget item are actually devoted to education programs, though some goes to programs such as public festivals and performances.

Taagepera (1979) index of effective number of parties.<sup>23</sup> The model measures level of polarization with the percentage of the local assembly vote obtained by the Left.<sup>24</sup>

A rival political explanation for divergence might focus on relationships between national and local levels. According to this view, state decision-makers varied in their willingness to follow national strategies, with governors in opposition to the national executive less willing to switch to market orientation. These governors had little access to federal patronage, and they could benefit politically if the federal strategy failed and discredited the incumbent (Tomassi, Sanguinetti, and Jones, 1999). The states were each scored according to membership in the national governing coalition, with those governors from parties within the coalition receiving a one and governors from parties outside the coalition receiving a zero.<sup>25</sup>

A different type of link to the federal level might have been an economic one, in which some states were more dependent on the federal government for resources and were thus more likely to acquiesce to federal demands for policy change. State fiscal dependence is measured by calculating the proportion of current receipts accounted for by transfers.<sup>26</sup>

A second economic hypothesis might suggest that choosing a market orientation depended on the total amount of resources available within the state. More resources

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<sup>23</sup> As mentioned before, the Laakso-Taagepera (1979) index is given by:  $1/SP_i^2$  for  $i=1$  to  $n$ , in which  $P$  is the percent of votes or percent of seats gained by each party.

<sup>24</sup> Once again, vote for the Left is defined using the parties whose representatives identified themselves as Left (as cited, Mainwaring, 1999: 132-133). Similar results were found using support for the Left in other elections, such as elections for governor.

<sup>25</sup> Though there is a strong relationship between a Leftist governor and opposition to the center, there were a number of Center or Right governors who were also in opposition, and this variable is not identical to ideological strength of the Left.

could lead either to convergence, if resources offered room for fiscal flexibility, or to divergence, if state leaders from large states wagered that they were too important for the center to punish. In the model, the logarithmic transformation of the gross state product indicates the amount of wealth generated within the state, and the amount collected in current receipts indicates the amount of resources available.<sup>27</sup>

A cultural hypothesis might suggest that certain states had cultures that were more amenable to market-friendly state-society relationships based on individual rights and limited government as opposed to hierarchical or patron-client rights. Cultural orientations are difficult to measure, but one indicator used in studies of modernization was the level of industrialization. Here, industrial output as a percentage of gross state product serves as a proxy for modern cultural values.

The model also tests the impact of the change from government guidance to market orientation. As the general trend among states showed, market orientation was likely to generate lower convergence, as it demanded much more of states and was harder to follow than government guidance. The models are run using all the governor periods since 1982 but add a dummy variable for development model, in which a score of one indicates years in which market orientation was the dominant model.<sup>28</sup> Chart 1-3 lists the right-hand side variables with their indicators and their units.

---Insert Chart 1-3 about here---

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<sup>26</sup> Transfer receipts include those received from the municipal level, but these are so insignificant as to be negligible in comparison with the transfers from the center.

<sup>27</sup> The logarithmic transformation of Gross State Product is performed to minimize the distortion created by huge outliers, such as São Paulo.

<sup>28</sup> The 1990 cut-off makes sense because prior attempts to impose market-oriented strategies were either quickly aborted or only half-hearted.

**Pooled Time-Series Model.** Pooled time series models regress the indicators for aspects of market orientation on the independent variables. The models assume an AR1 structure in the dependent variables, which makes the most sense given the incremental nature of budgetary decisions. With only twenty-seven states and so many variables, multi-collinearity was a problem, and it was difficult to obtain good estimates of the statistics. Still, the results were robust to multiple model specifications and estimation techniques.<sup>29</sup>

**Strong Support for Fragmentation Hypothesis, Some Support for Polarization.** In the case of market-oriented stabilization measured as operational current surplus/deficit, the models in Table 1-5 shows state politics fragmentation to be negatively associated with market-oriented stabilization. In the simple model (first column), for each increase in effective parties in a state, the deficit increased by 1995R\$100million. The effect of polarization, though also negative, was not significantly different than zero. These results were robust to each model specification. Of the rival explanations, there was consistent evidence that governors allied to the president increased the size of their deficit by over 1995R\$200million. In some of the models, state wealth or resources available appeared significant, though these results were not robust to different specifications. The Wald Chi-Squared test for each was significant at least at the .10 level, with the simple model and the political model significant at the .05 probability level.

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<sup>29</sup> For each dependent variable, the local politics explanations were tested alone, against all the controls, against the rival political hypothesis, against rival economic and cultural hypotheses, and then the control variables were tested alone. The results were also robust to various estimation techniques, including

---Table 1-5 about here---

In the case of market-oriented allocation, measured as capital expenses as a percentage of current receipts, the models in Table 1-6 showed polarization to be positively related to capital expenses as a percentage of receipts. In the simple model, for every increase in one percent of the vote to the Left, states spent .25% more of current receipts on capital expenses. This result was robust to different model specifications and all but one of the models were significant, which was the Wald Chi-squared test of the model that tested fragmentation and polarization against the economic and cultural factors. Of the control variables, only president allied to the governor appeared significant, but this relationship only resulted when the rival hypothesis were tested alone and was not robust to other specifications.

---Table 1-6 about here---

Finally, in the case of market-oriented distribution, measured as education and culture expenses, the models in Table 1-7 showed fragmentation to be negatively related to education and culture spending. For every increase in effective number of parties, states decreased their spending on education by 1995R\$40million. This result held for each of the other models, though the magnitude of the change shifted downwards. This suggests that the relationships among the causal variables were such that they inflated the effect of fragmentation when they were omitted. The Wald chi-squared test showed all the models to be significant.

---Table 1-7 about here---

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normal regression, cross-sectional time-series linear models using generalized least squares, and models testing for fixed-, between- and random-effects.

## Conclusions

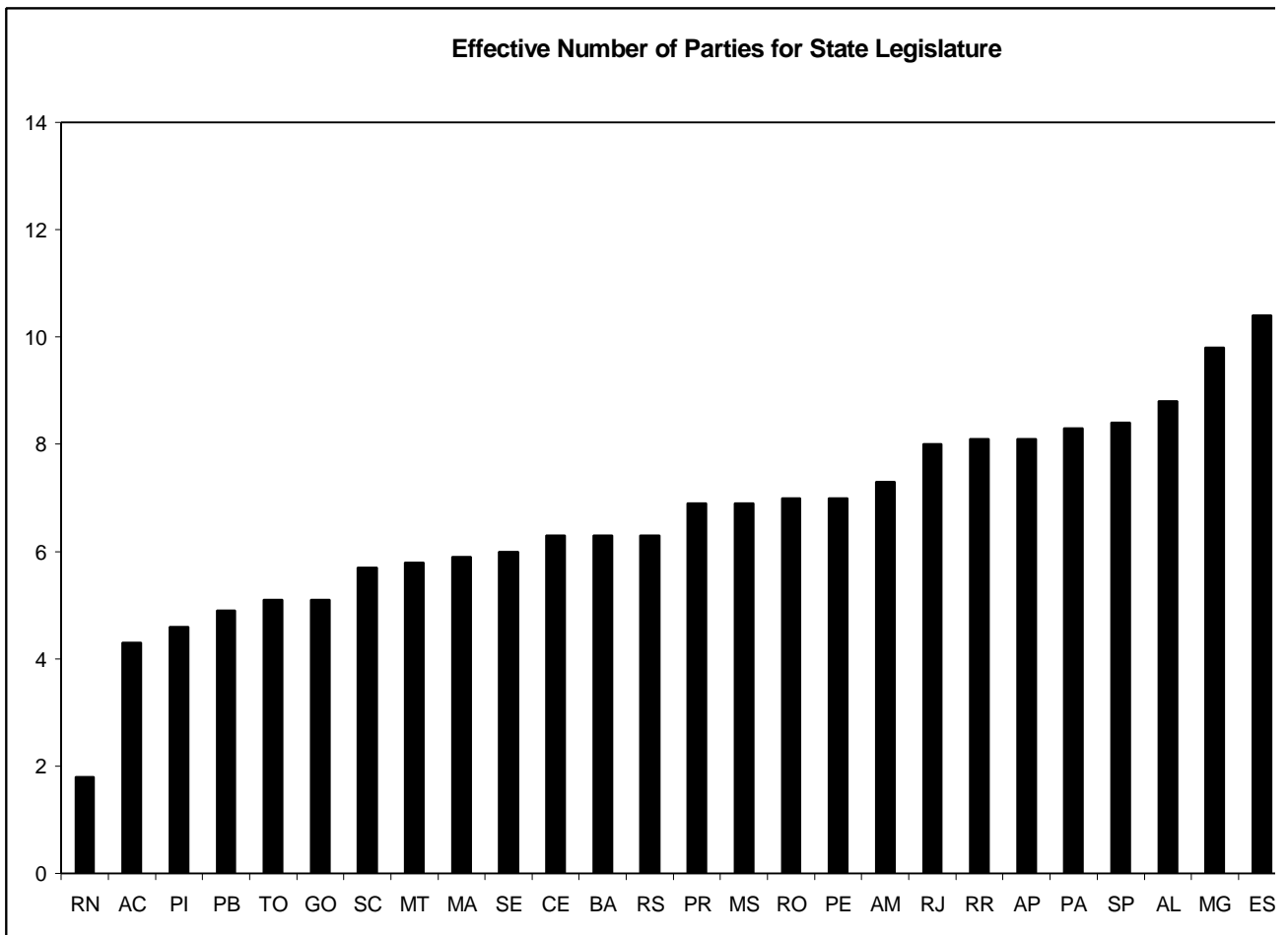
Decentralized political federalism produced uncooperative fiscal federalism in Brazil. States did not always mirror the center in fiscal strategies, and the divergence between state and nation increased as the center turned towards market orientation. Partly, this occurred because market-oriented policies were difficult for states to mirror. At the same time, divergence became increasingly vexing for the nation, as the market-oriented development strategy depended on the confidence of external capital, and required greater, not less, cooperation across levels of government. The pattern of divergence across levels was rooted in the political arrangement of Brazilian federalism, which operated with a decentralized political system that produced autonomous dynamics in local party systems.

Local political factors explain why many states diverged from the national choice of market-oriented fiscal strategies. Two local characteristics, political fragmentation and polarization, caused chief executives to have difficulty coordinating a coalition that could put market-oriented policies in place. Polarization also indicated the existence of a strong Left that would oppose market-oriented changes as well as they could. As a result, states with higher levels of fragmentation and polarization tended to diverge from market-oriented stabilization, allocation, and distribution policies.

These results provoke a number of questions. Did granting political responsibilities to sub-national jurisdictions compromise the capacity of the nation to effectively coordinate its fiscal strategy? Did sub-national resistance represent a protective barrier against globalization, softening the disruptions created by the switch to

a market orientation? Or, alternatively, were local level responses merely the strategic behavior of a local elite seeking to strengthen its hold on power and resources in the face of local political threats? Pooled time-series regression demonstrated the importance of local political factors in determining fiscal outputs, and a closer look at a few states will draw out the causal process that led from local political factors to macro-economic policy decisions.

Graph 1-1. Party System Fragmentation in 1990



Graph 1-2. Polarization in 1990

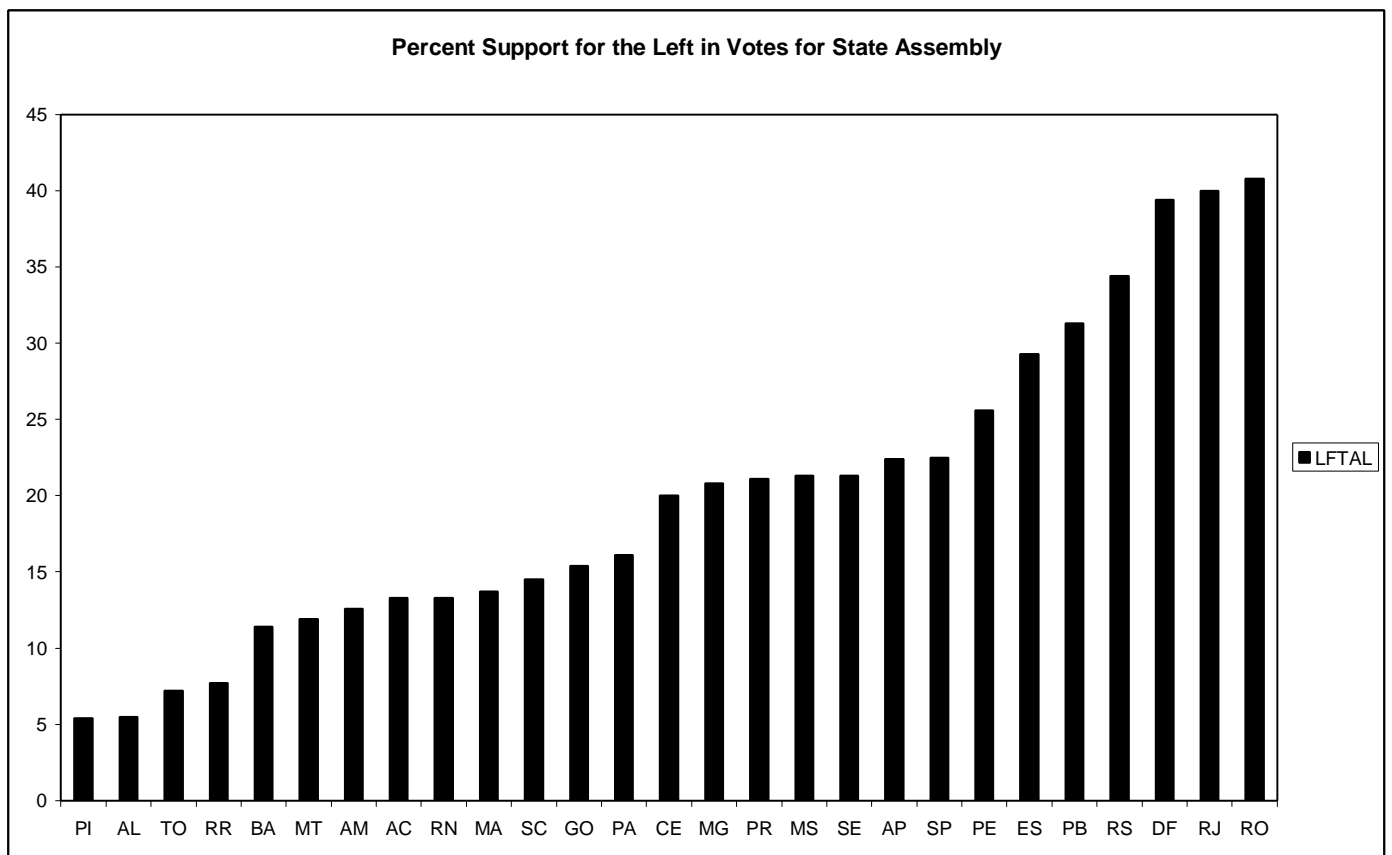


Chart 1-1. Thirteen Stabilization Plans

Plan	Key Components	Result
Delfim Plan I (1979)	Populist, right-wing, developmental, and monetarist; preset exchange rate to decline at set intervals	Recession, continued inflation
Delfim Plan II (1981)	Classical orthodox plan	Recession, continued inflation
Delfim Plan III (1983)	Classical orthodox	Recession, continued inflation
Dornelles Paln (April-July 1985)	Partially heterodox, froze public prices and some private oligopolistic sectors, applied strict monetarist policy by Central Bank	Inflation fell but returned when prices were freed
Cruzado Plan (March-December 1986)	Heterodox plan, price freeze	Lost in populism and excess demand
Bresser Plan (June-December 1987)	Heterodox, emergency plan, including provisional price freeze and incomplete fiscal adjustment	Inflation returned, and the plan did not complete gradual correction of public prices, and final price freeze
Beans and Rice Plan (1988)	Orthodox plan	No fiscal adjustment led to an increase in inflation
Summer Plan (January-June 1989)	Heterodox plan, including price freeze, deindexation, monetary reform and orthodox components, such as a high interest rate	Approached hyperinflation
Collor Plan 1 (March-	Heterodox plan, including	Price freeze was abandoned almost

April 1990)	retention of monetary assets, price freeze and orthodox fiscal adjustment	immediately, inflation lowered temporarily, when the plan was abandoned without an incomes policy
Eris Plan (May-Dec 1990)	Second phase of Collor Plan I. Strictest monetarist and orthodox plan ever, including fiscal adjustment, monetary targets	Recession, continued inflation
Collor Plan II (Jan-Apr 1991)	Heterodox plan with increase in public prices	Inflation returned immediately
Marcílio Plan (May 1991-Oct 1992)	Orthodox, IMF-Sponsored plan	Inflation worsened
Real Plan (Persio Arida, Andre Lara Resende, Edmar Bacha, Gustavo Franco)	Fiscal adjustment, correction of relative prices, price shock with monetary reform and nominal anchor, additional fiscal adjustment and tight monetary policy. Hinged on use of new currency, linked to dollar, while contracts were still written in old currency, with inflationary expectations.	Inflation defeated, initial consumer boom followed by recession and eventually recovery.

Source: Bresser Pereira, 1996: 183-185, 197-198.

Table 1-1. Limits to State Indebtedness: Principle Senate Resolutions (1975-1995)

Limits on:	Resolution 62/75, 93/76	Resolution 94/89	Resolution 58/90	Resolution 11/94	Resolution 69/95	Resolution 78/98
Real Growth of Internal Debt	20% Growth in Liquid Receipts	-	-	-	-	18% of Real Liquid Receipts
Debt Service	15% Liquid Receipts	Margin of Real Saving <sup>2</sup>	Margin of Real Saving	Lesser of Margin of Real Saving or 15% Real Liquid Receipts <sup>3</sup>	Lesser of Margin of Real Saving or 16% of Real Liquid Receipts	13% of Real Liquid Receipts
Using Expected Receipts for Debt Stock	25% of Budget Receipts	25% of Budget Receipts	15% of Budget Receipts	15% of Estimated Liquid Receipts <sup>5</sup>		
Issuing Public Bonds	35% of Liquid Receipts	-	-	-	-	Guarantees limited to 25% of Real Liquid Receipts

From www.ipea.gov.br web site, June 2000; Gerenciamento da Dívida Pública: Estratégia do Estado da Bahia.

<sup>1</sup> Liquid Receipts = Liquid Receipts + Credit Operations.

<sup>2</sup> Margin of Real Saving = Liquid Receipts - Current Expenses + Debt Service.

<sup>3</sup> Real Liquid Receipts = Liquid Receipts - Current Expenses.

<sup>4</sup> Liquid Capital Receipts + Transfers to Municipalities. <sup>5</sup> Real Predicted Liquid Receipts.

Table 1-2a. State Tendency to Diverge in Stabilization: Change in Public Sector Liquid Debt 1981-1994 (% of GDP)

Year	Central Government and Central Bank	Subnational Governments	Public Sector	Subnational/Total
1981-1988	314%	57%	47.8%	3%
1988-1994	-49%	39%	-46.5%	24%

Source: From Central Bank

Table 1-2b. State Tendency to Diverge in Stabilization: Subnational Internal and External Debt as Percentage of Total Public Debt (US\$Millions)

Year	Sub-national Percent of Total	State and Municipal Debt
1982	18.18	15 911
1983	12.63	12 257
1984	12.57	13 257
1985	13.45	15 996
1986	13.29	18 628
1987	15.72	24 176
1988	14.25	22 003
1989	14.71	28 014
1990	19.27	31 239
1991	18.93	27 319
1992	24.85	37 420
1993	28.23	42 173
1994	33.36	60 534
1995	34.90	74 557

Source: Central Bank, as cited Osorio Almeida (1996).

Table 1-3. State Tendency to Diverge in Allocation: Consumption, Employment and Fixed Capital Formation by Level of Government, 1991-1997 (1997 R\$1000)

Year	Federal	State
1991	62554	58980
1992	42997	60990
1993	53149	66612
1994	56401	76270
1995	63890	75760
1996	67473	73316
1997	60514	73405
Percent Change	-3.3%	24.5%

Source: IBGE, Directory of Research, Department of National Accounts

Table 1-4a. State Tendency to Diverge in Distribution: State versus Federal Social Spending, 1995 (%)

Item	Federal	State	Total
Social Spending/Non-Financial Expenses	59	42.1	53.7
Social Spending/Direct Expenses	73.4	50.7	63.7

From: Maria Alice da Cunha Fernandes (coord.), 1998: 18.

Table 1-4b. State Tendency to Diverge in Distribution: Personnel Expenses/Liquid Receipts (%)

Year	Federal	State Average
1995	56.2	70.2
1996	45.4	67.8
1997	45.9	67.5
1998	45.9	
1999	39.7	

Source: Ministerio de Administração e Reforma do Estado, Boletim Mensal de Pessoal, Jan. 2000.

Table 1-4c. State Tendency to Diverge in Distribution: Average Monthly Personnel Expenses as Percentage of Major Tax and Transfer Receipts (1996) R\$millions

States	ICMS <sup>i</sup>	Transfers <sup>ii</sup>	ICMS + TRANSF.	Personnel Expenses <sup>iii</sup>	%
TOTAL	2.782	714	3.494	3.100	82%

Source: Federal Senate. Relatório Final da “CPI destinada a apurar irregularidades na autorização, emissão e negociação de títulos públicos, estaduais e municipais, nos exercícios de 1995 e 1996”.

<sup>i</sup>Excluding transfers to municipalities

<sup>ii</sup>Including revenue-sharing with Central Government

<sup>iii</sup>Including vacation benefits

Chart 1-2. Convergence/Divergence and Indicators

Variable Label	Indicator	Units
Stabilization Strategy	Current Surplus (Averaged for Governor period)	1995 R\$1000
Allocation Strategy	Capital Expenses/Current Liquid Receipts (Averaged for Governor period)	1995 R\$1000/1995 R\$1000
Distribution Strategy	Education and Culture (Averaged for Governor period)	1995 R\$1000

Chart 1-3. Political, Economic, and Cultural Explanations and Indicators

Variable Label	Indicator	Scoring
State Politics Fragmentation	Effective Number of Parties Competing for State Assembly (per Governor period)	Laakso-Taagepera Effective Number of Parties
State Politics Polarization	Average Support for the Left in Governor and State Assembly Races (per Governor period)	Percent of the Vote won by the Left
Governor Allied to President	Governor from a Party in the President's Coalition	1 = In Coalition 0 = Out of Coalition
State Fiscal Dependence on the Centre	Transfer Receipts/Current Receipts (Averaged for Governor Period)	1995 R\$1000/1995 R\$1000
Gross State Product	Logarithmic Transformation of State Contribution to National GDP (Averaged for Governor Period)	Logarithmic Transformation of 1990 R\$1000
Resources Available	Logarithmic Transformation of Current Expenditures (Averaged for Governor Period)	Logarithmic Transformation of 1995 R\$1000
Modernization	Industrialization/Gross State Product	Percentage of Gross State Product
Development Model	Dummy Variable for model operating in each four-year period	1 = Market-Oriented Period 0 = Government-Guided Period

Table 1-5. Pooled Time Series Regression for State Stabilization Strategy: Current Surplus in 1995R\$millions<sup>30</sup>

	Simple Model	Full Model	Political Model	Economic and Cultural Model	Control Model
State Politics Fragmentation <sup>i</sup>	-100.37** (49.51)	-103.15* (53.72)	-118.80** (49.68)	-82.79 (51.13)	
State Politics Polarization <sup>ii</sup>	-1.32 (5.07)	-.18 (5.48)	-1.24 (5.01)	-.51 (5.43)	
Governor Allied to President <sup>iii</sup>		-248.52* (140.98)	-222.61* (129.77)		-173.96 (128.31)
Fiscal Dependence <sup>iv</sup>		269.12 (561.48)		169.42 (566.51)	14.08 (510.84)
State Wealth <sup>v</sup>		612.94** (430.13)		490.05 (415.13)	481.05 (416.03)
Resources Available <sup>vi</sup>		-1034.78* (555.80)		948.30* (523.73)	-1034.92 (545.08)
Modernization <sup>vii</sup>		.41e-05 (.72e-05)		.46 (.73)	.36e-05 (.71e-05)
Market-Orientation <sup>viii</sup>		58.35 (184.48)			-60.38 (163.53)
Constant	294.85* (174.24)	2295.66 (2274.33)	495.79** (208.55)	2424.89 (2269.18)	2920.03 (2093.97)
Wald Chi-Squared	5.84**	15.49*	8.90**	11.93*	11.77*
Within-State Autocorrelation	.14	.084	.14	.10	.09
Number of Observations	89	87	89	87	91

<sup>i</sup>Effective Parties Competing for State Assembly

<sup>ii</sup>Average Support for the Left in Governor and State Assembly Races

<sup>iii</sup>Governor from a Party in the President's Governing Coalition (Meneguello, 1999)

<sup>iv</sup>Transfer Receipts/Current Receipts

<sup>v</sup>Logarithmic Transformation of Current Expenditures

<sup>vi</sup>Logarithmic Transformation of Gross State Product from Considera and Medina, 1998.

<sup>vii</sup>Industrial Product as Percent of Gross State Product from Considera and Medina, 1998.

<sup>viii</sup>Dummy for years after 1990

<sup>30</sup> Tables report coefficients and standard errors from maximum likelihood estimation of cross-sectional, time-series regression. A single asterisk indicates statistical significance at the 90% confidence level, a double asterisk indicates significance at the 95% level, and a triple asterisk indicates significance at the 99% level.

Table 1-6. Pooled Time Series Regression for State Allocation Strategy: Capital Expenses as a percent of Liquid Receipts<sup>31</sup>

	Simple Model	Full Model	Political Model	Economic and Cultural Model	Control Model
State Politics Fragmentation <sup>i</sup>	-.62 (1.14)	-1.14 (1.20)	-.80 (1.15)		
State Politics Polarization <sup>ii</sup>	.26** (.12)	.22* (.12)	.25** (.12)	.24** (.12)	
Governor Allied to President <sup>iii</sup>		-4.30 (3.13)	-3.82 (3.08)		-5.62* (3.15)
Fiscal Dependence <sup>iv</sup>				7.38 (13.10)	11.33 (11.95)
State Wealth <sup>v</sup>				2.52 (9.84)	10.41 (9.92)
Resources Available <sup>vi</sup>				-.69 (12.47)	-6.81 (13.03)
Modernization <sup>vii</sup>				-7.59e-08 (.17e-06)	-8.74e-08 (.17e-06)
Market-Orientation <sup>viii</sup>		3.52 (3.67)			5.74 (3.88)
Constant	-.30 (3.98)	4.15 (4.95)	3.08 (4.83)	-17.70 (53.71)	-30.82 (49.56)
Wald Chi-Squared	5.27*	7.75*	6.86*	5.70	6.40
Within-State Autocorrelation	.04	.04	.04	.03	.01
Number of Observations	95	95	95	90	94

<sup>i</sup>Effective Parties Competing for State Assembly

<sup>ii</sup>Average Support for the Left in Governor and State Assembly Races

<sup>iii</sup>Governor from a Party in the President's Governing Coalition (Meneguello, 1999)

<sup>iv</sup>Transfer Receipts/Current Receipts

<sup>v</sup>Logarithmic Transformation of Current Expenditures

<sup>vi</sup>Logarithmic Transformation of Gross State Product from Considera and Medina, 1998.

<sup>vii</sup>Industrial Product as Percent of Gross State Product from Considera and Medina, 1998.

<sup>viii</sup>Dummy for years after 1990

<sup>31</sup> Tables report coefficients and standard errors from maximum likelihood estimation of cross-sectional, time-series regression. A single asterisk indicates statistical significance at the 90% confidence level, a double asterisk indicates significance at the 95% level, and a triple asterisk indicates significance at the 99% level.

Table 1-7. Pooled Time Series Regression for State Distribution Strategy: Education and Culture Spending<sup>32</sup>

	Simple Model	Full Model	Political Model	Economic and Cultural Model	Control Model
State Politics Fragmentation <sup>i</sup>	-40.59* (23.00)	-18.40** (7.58)	-8.65** (2.69)	-18.93** (7.35)	
State Politics Polarization <sup>ii</sup>	50.39 (40.96)	-.90 (1.30)	23.67** (8.51)	-1.32 (1.29)	
Governor Allied to President <sup>iii</sup>		6.89 (29.80)	70.28*** (8.93)		35.50 (27.52)
Fiscal Dependence <sup>iv</sup>		316.14 (204.00)		267.59 (194.44)	182.14 (190.07)
State Wealth <sup>v</sup>		-349.26** (147.02)		-301.03** (137.49)	-427.90** (143.13)
Resources Available <sup>vi</sup>		916.68*** (179.00)		805.02*** (153.70)	922.09*** (178.73)
Modernization <sup>vii</sup>		.44e-04 (.27e-04)		.04*** (.00)	.04*** (.00)
Market-Orientation <sup>viii</sup>		-50.57 (43.06)			-79.97* (40.94)
Constant	544.47* *(179.43)	- 2965.76** *(810.81)	469.76** (175.10)	- 2617.97*** (750.08)	- 2512.00** (774.19)
Wald Chi-Squared	7.02*	897.12***	101.59***	972.03***	900.89***
Within-State Autocorrelation	.99	.62	.99	.58	.61
Number of Observations	93	90	93	90	94

<sup>i</sup>Effective Parties Competing for State Assembly

<sup>ii</sup>Average Support for the Left in Governor and State Assembly Races

<sup>iii</sup>Governor from a Party in the President's Governing Coalition (Meneguello, 1999)

<sup>iv</sup>Transfer Receipts/Current Receipts

<sup>v</sup>Logarithmic Transformation of Current Expenditures

<sup>vi</sup>Logarithmic Transformation of Gross State Product from Considera and Medina, 1998.

<sup>vii</sup>Industrial Product as Percent of Gross State Product from Considera and Medina, 1998.

<sup>viii</sup>Dummy for years after 1990

<sup>32</sup> Tables report coefficients and standard errors from maximum likelihood estimation of cross-sectional, time-series regression. A single asterix indicates statistical significance at the 90% confidence level, a double asterix indicates significance at the 95% level, and a triple asterix indicates significance at the 99% level.

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