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Fiscal Rules in Brazil: The Limits of Fiscal Stabilization for Poverty Reduction

Saulo Santos de Souza
Public Policy Research Center
Federal University of Pernambuco - Brazil
souzasaulo@yahoo.com.br

Abstract

This work examines the influences of fiscal rules on fiscal stabilization of the Brazilian states. In addition, we investigate whether fiscal policy rules have promoted socioeconomic development in the country. The statistical results point to a linear negative association between the budget balance of the states and important expenditure items, e.g., public investments, personnel payroll, and social spending. We conclude that, despite the success of the rules for Brazil's macroeconomic stability, a fall in the level of public deficit has not been able to increase the GDP per capita in the country.¹

Key words: Fiscal rules; stabilization; socioeconomic development; poverty reduction.

1. Introduction

To what extent do budget balance rules serve as an instrument to achieve socioeconomic development? The role of fiscal rules for fiscal stabilization has been an issue of concern to several developing countries.² In Brazil, rules-based numerical limits to fiscal deficits, namely the Fiscal Responsibility Law (FRL) and the Fiscal Crimes Law (FCL), were introduced in 2000 to make mandatory the pursuit of fiscal equilibrium for all government tiers as a means to secure macroeconomic stability in the country. However, both rules have focused largely on the goal of stabilization. Correspondingly, socioeconomic objectives have been under-emphasized and the Brazilian states have continued to show low economic growth and high poverty rates in the medium term.

This paper investigates the relationship between fiscal policy and socioeconomic development. We are particularly interested in whether the fiscal austerity required by the Fiscal Responsibility Law has restricted expenditures on poverty alleviation policies by the Brazilian states. According to part of the literature, fiscal austerity could be beneficial for socioeconomic development, for economic growth and stability and thus ultimately for welfare. An alternative view is that if government spending and investment are efficient and beneficial for socioeconomic development, fulfilling the primary surplus criteria might be detrimental for the provision of poverty alleviation policies by the Brazilian States, as many of them has been running high government deficits and fiscal consolidation measures require huge expenditure cuts. In this paper, we presuppose that the objectives of consistent poverty reduction and economic advancement in the Brazilian cannot be achieved by fiscal stabilization alone but also by sustained high rates of economic growth over extended periods of time.

In order to investigate whether fiscal rules in Brazil has been equally relevant in promoting both fiscal consolidation and socioeconomic improvement, we develop models which consider variables suggested by the political economy literature as determinants of macroeconomic stabilization and socioeconomic development. As a result we find that most states that eliminated fiscal deficits did so by reducing the government wage bill and by cutting public investments and social spending significantly, despite a negative impact on growth and socioeconomic development. In addition, the evidence shows that the poverty rate trend and the level of illiteracy and income and wealth inequalities in the Brazilian states saw little change in the sample period.

The remainder of the paper is organized as follows: Section 2 examines the aims and outcomes of fiscal policy rules in Brazil; Section 3 covers the theoretical background on the role of government finances in the analysis of socioeconomic development; Section 4 identifies empirical evidence on the Brazilian states; in Section 5 we further discuss the findings backing our main argument; Section 6 summarizes the conclusions and gives final remarks.

2. Fiscal consolidation: the Brazilian experience

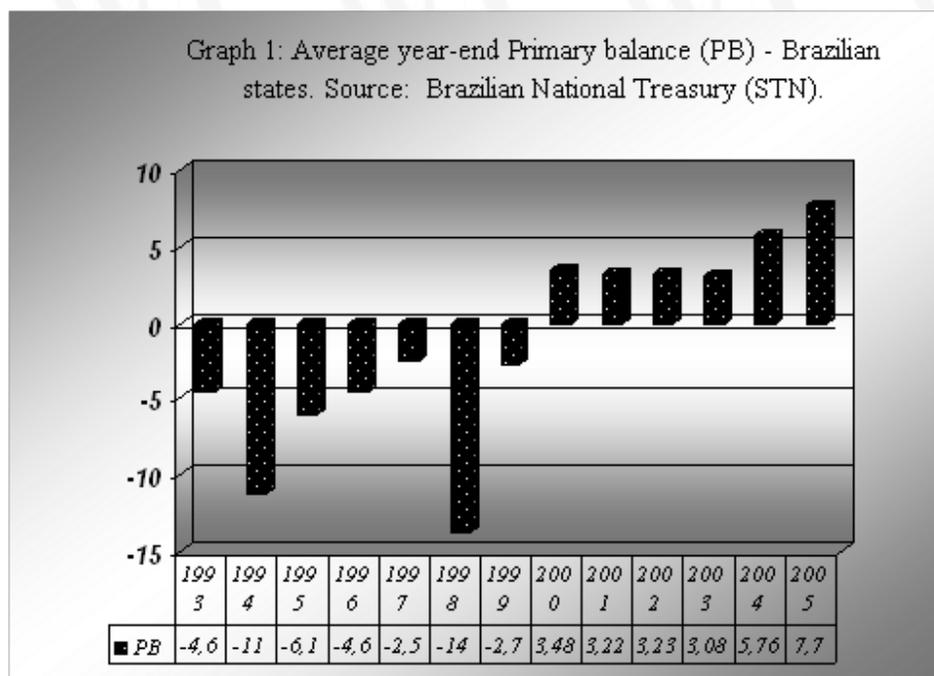
As in most Latin American countries in the last few decades, large fiscal deficits have been a source of

macroeconomic instability in Brazil. Also, the poor fiscal performance of subnational governments was seen to have a negative impact on the economic stabilization process of the country. The move towards decentralized management and control of public finances was followed by bailouts of state governments by the federal government in 1989 and 1993. The lack of effective control on borrowing, coupled with reputational effects originating from these bailout operations, further reduced fiscal discipline and created an explosive accumulation of debts in Brazilian states during the 1990's (Bevilaqua 2002). Against this background, it was clear that the Brazilian states needed to consolidate their fiscal balances in order to allow the federal government to implement the Real Plan, an inflation target economic package promoted by President Cardoso in the mid-90's.

These were some of the reasons leading the federal government to introduce top-down fiscal rules in the Brazilian fiscal federalism, with the main objective of promoting time consistent budget balance at all government tiers. Accordingly, Cardoso's economic package was followed by a 1997 rules-based renegotiation of state governments' debts and in May 2000 the federal government passed the Fiscal Responsibility Law. The bill was fairly detailed in terms of content, including not only specifications about the level of fiscal surpluses to be pursued by subnational governments but also accountability procedures and transparency prerequisites. Financial penalties, such as the prohibition of transferring discretionary funds to non-complying units, would be put in place. Also, escape clauses were to be provided in order to accommodate shocks or cyclical fluctuations in activity.

However, the implementation of fiscal consolidation would be a challenging task, as compliance with the new rule would mean decreasing the expenditure side of state government budgets, as political pressures would be an impediment to increase the tax side. Thus, so as to secure the enforcement of the FRL provisions, the federal government in October 2000 enacted its companion rule: the Fiscal Crimes Law. Among other things, the FCL treats as criminal offenses the issuing of unauthorized extra-budgetary commitments as well as overspending during the last year of term of office. Public officials in non-complying governments are liable to criminal prosecution. Judicial sanctions for mismanagement range from fines to loss of job and ineligibility for public office, to imprisonment. However, the role of the courts is not homogeneous across all 27 states, what generates varying expectations towards the effectiveness of the FCL to secure compliance with the FRL. As a result one could expect different impacts of both rules on the states' fiscal behavior.

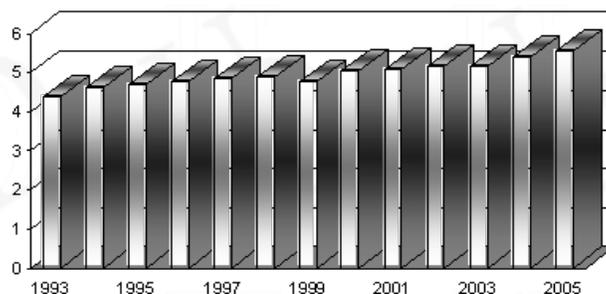
The new framework counts on numerical limits to deficit as well as surplus targets with a view to overcoming overspending-related negative externalities for different jurisdictions as well as to avoid potential bailouts benefiting fiscally irresponsible administrations. A quick glimpse at graph 1 will suffice to illustrate how the average state level primary fiscal balance in Brazil has increased from a negative territory to positive beginning in 2000.



Notwithstanding, doubts remain as to the effective role played by the fiscal stabilization policies in speeding growth and socioeconomic development in Brazil. Graph 2 depicts a light increasing trend in the average per capita GDP from 1993 to 2005, when it reached a mere \$ 5.8 (about 2.8 US dollars, in December 2005). That's too low for a

developing country. Moreover, the annual growth rate has seen practically no change: 1.01 per cent between 1993 and 1999, against 1.02 between 2000 and 2005.

Graph 2- Average per capita GDP (2000 R\$).
Brazilian states. Source: IPEA.



Thus, we reject the notion that fiscal stabilization alone suffices for socioeconomic development in the country. Instead, this work builds on the presupposition that the budget balance is a useful indicator for purposes of stabilization and for controlling the escalation of government liabilities, but it offers little indication of longer-term effects on socioeconomic development, as opposed to infrastructure investments or welfare maximizing policies.

3. Fiscal stabilization and macroeconomic outcomes: theoretical considerations

The issue of fiscal consolidation has been central to many developing countries, where the deficit bias emerged with the pursuit of developmental objectives. Recognition of this bias and its contribution to public indebtedness prompted some governments to introduce medium-term fiscal consolidation programs to restore fiscal sustainability, including a shift to fiscal policy rules. However, for some (including Schick 2004; Braun & Tommasi 2004) it is not immediately clear why a single rule would make political actors change their behavior, preventing them from making economically suboptimal decisions. In a similar vein, it has been argued that a government can commit credibly to fiscal discipline without any permanent rules (Kopits 2001).

Indeed, neither traditional macroeconomic analysis, nor any principles of public finance are predicated on a rules-based fiscal policy. Instead, a discretionary approach has been widely viewed as instrumental for the achievement of conventional fiscal goals. For instance, Modigliani (1961) and Alesina & Perroti (1995) find that a decrease in public debt would be enough to increase the capital stock of the economy and, as a result, improve the growth rate of the economy. On the flipside, an increase in the level of public debt would decrease the welfare of the economy. However, most of such studies agree that fiscal retrenchment might have a favorable impact on economic activity only in the medium or long term.³

Concerning the link between structural reforms and fiscal policy, part of the literature sees the issue as a trade-off between structural reforms and fiscal balances, where rapid structural reforms may generate costs in the form of deteriorating fiscal balances (Pirttilä 2001). This literature also gives attention to the role of indebtedness in the social dimension of economic development.

On the other hand, the economic performance in the medium-term may depend on the initiative of the public sector. While the private sector serves as the engine of economic growth, the government can act as a strategist, establishing a proper legal basis and transparent incentive framework necessary to support broad-based expansion of the private sector. In a comprehensive study of public sector performance and efficiency in 23 OECD countries, Afonso et al. (2003) considered indicators for the 'opportunity-providing' activities of the government, such as education, health and infrastructure.⁴ The authors found that, when fiscal consolidation took place between 1990 and 2000, there was a considerable improvement in the public sector performance of most of the countries in the sample.

However, public debt is not always seen as a bad thing. The academic literature has explored public debt accumulation from two different perspectives. One perspective views public debt as a strategic instrument employed by current governments to affect the policies chosen by future governments. Persson & Svensson (1989) and Alesina & Tabellini (1990) provide illustrations of this approach. Another strand of the literature explores the incentives to accumulate public debt by governments that are unable to commit to an announced inflation rate. Obstfeld (1991) demonstrates that, in the absence of commitment, governments may want to accumulate public

assets in order to eliminate the incentives to generate unanticipated inflation, thereby enhancing the credibility of anti-inflation policies.

Also, some scholars have pointed out the importance of the so-called “golden rule” to prevent a crowding-out of much needed public investment. Under the golden rule, even though the government is not permitted to borrow to fund current spending, it might do so to invest. Therefore, over the cycle only the current budget (ie, net of investment) must balance or be brought into surplus. This should allow policymakers to focus on the likely growth effects of the level, composition and efficiency of public spending. Fiscal rules that miss these characteristics run the risk of achieving fiscal stability while potentially undermining long-term economic growth.

The central assumption of this paper is that fiscal discipline towards public debt reduction and investments in infrastructure projects are important mutually reinforcing strategies for developing countries and particularly for Brazil to attain: *i*) enhanced fiscal stability; and *ii*) a higher and more sustainable economic growth rate. It is also argued that this approach requires increasing spending in poverty alleviation policies in Brazil. In the following sections we analyze recently collected evidence on the empirical validity of these implications in the Brazilian states.

4. Empirical evidence from the Brazilian states

Our main aim is to investigate the relationship between fiscal consolidation and poverty reduction in the 27 Brazilian states, with panel data in the period 1993-2005. First we regress the primary balance on different categories of variables, such as the public debt and the degree of political competition. This allows us to draw conclusions about differences in the degree of compliance with the rules, across the states and over the years. Furthermore, we replicate the analysis for changes in the poverty rate to evaluate the relationship between socioeconomic development and fiscal policy. The following table summarizes the variables used for the econometric tests.

Table 1- Predictors' expected signs in the equations

Independent variables	Dependent variables	
	Primary balance	Δ Poverty rate
Partisan alignment with the President	+	
Government ideology	+/-	
Electoral competitiveness	+	
Tax revenue	+	
Federal grants	+	
Public investment	-	
Public debt payments	-	
Social spending	-	
Personnel expenses	-	
GDP per capita	+	

Fiscal rules	+	+/-
Δ Tax revenue		+/-
Δ Federal grants		-
Δ Public investment		-
Δ Public debt payments		+
Δ Social spending		-
Δ Illiteracy rate		-
Δ Gini index		+
Δ GDP per capita		+

The data for fiscal policy variables are obtained from the Brazilian National Treasury (STN). For the social economic indicators we use data from the Brazilian Institute of Applied Economics (IPEA) and from the Brazilian Institute of Geography and Statistics (IBGE). We treat the FRL and FCL as a single dummy variable taking the value of 1 when the rules were in effect, or 0 otherwise. The reason is that both rules were introduced at about the same time and complement each other in the pursuit of fiscal equilibrium. We estimate the primary balance model in levels, whereas the poverty rate model is estimated in differences. The regression specifications are presented in table 2.

Table 2 – Estimation results for the Brazilian states, 1993-05.

Independent variables	Y(1) = Primary balance	Y(2) = Δ Poverty rate
Partisan alignment with the President	-1.476 [1.261]	
Government ideology	0.822 [.687]	
Electoral competitiveness	0.190 [.282]	
Tax revenue	146.883** [26.849]	
Federal aid	130.587** [15.057]	
Public investment	-183.514** [17.164]	
Public debt payments	121.910* [52.770]	
Social spending	-85.471** [29.135]	

Personnel expenses	-93.939** [16.877]	
GDP per capita	-0.357 [.133]	
Fiscal rules	5.938** [1.129]	0.009* [.004]
ΔTax revenue		-0.632** [.195]
ΔFederal aid		-0.006 [.526]
ΔPublic investment		-0.010 [.071]
ΔPublic debt payments		-0.004 [.186]
ΔSocial spending		-0.261* [.119]
ΔIlliteracy rate		0.005** [.001]
ΔGini index		0.546** [.071]
Δ GDP per capita		-0.018** [.005]
Constant	-6.046* [3.204]	-0.006* [.003]
R ²	.488	.263
Durbin-Watson	1.650	1.510
N	351	351

(**) Significant at the 0.01 level. (*) Significant at the 0.05 level. Value in parenthesis is the standard error.

The first model is in conformity with the conventional explanation for the current fiscal stabilization status in Brazil. The rationale for including political variables is the following: 1) it stands to reason that federal-state relations count on partisan alignment to work together on strategies designed to maximize expected political benefits of the fiscal consolidation; 2) according to the standard partisan ideology (Wittman 1983), parties of the left would favor expansionary fiscal policies, particularly ones committed to egalitarian forms of redistribution; 3) there is empirical support from developing countries (Block 2002) of politically-motivated changes in the composition of public contingent on elections being competitive (e.g., multi-party). However, none of such variables has significance in the model.

The subsequent variables in the equation are items composing the state budgets. All categories of expenditures and revenue are expressed as a proportion of states' GDP. Some inferences are drawn from the model. Firstly, states levying higher taxes accumulate higher stocks of capital to finance their budgets. Also, data demonstrate that state governments more dependent on federal aid are expected to face higher costs of non-complying with the federally imposed budget balance rules, as automatic FRL-based mechanisms would interrupt the flow of grants to deficit-ridden states.⁵ This explains the positive coefficient of both variables.

At the expenditure side of the budget, decreases in investment expenditures would provide states with higher primary surpluses. By the same token, the Brazilian states would need to curb expenditures in social policies in order to comply with the balanced budget rules. The high statistical significance of these variables tells the story. Good indeed for fiscal adjustment purposes, but public infrastructure spending is a necessary complement to private investment for socioeconomic development, as public capital formation is a means to provide public goods and services needed for economic growth. On the other hand, social spending has been a common strategy to combat poverty and income inequality in developing countries.

Personnel expenses have also decreased significantly. Aiming at leading subnational governments to reduce their deficits, the Fiscal Responsibility Law introduced a limit on the share of the governments wage bill. A need to comply with the rule has minimized the political costs associated with cutting salaries and pensions, and state administrations have now a rules-based excuse not to give public servants salary raises.

Under the FRL/FCL framework, a number of legal constraints have been imposed on the indebtedness of subnational units that have precluded the elevation of overall public debt in the country. Altogether, the expenditures categories included in the model (public debt payments, personnel expenses, public investments and social spending) amount to almost 92 per cent of total budgetary expenses. In average, all four categories saw a decrease related to GDP after the introduction of the rules. Thus, as anticipated, the dummy for fiscal rules is strong and has a positive sign. No wonder since the role played by fiscal rules in improving fiscal performance has extensively been highlighted in the literature (Inman 1996; Kopits 2004; Webb 2004).

The impacts of regional inequalities in the model are controlled for by means of the per capita GDP. At first, we presupposed that higher levels of wealth or income would have a positive effect on the budget surplus, by increasing state revenues (see table 1). However, not only is the variable statistically insignificant, but also it *negatively* affects the primary balance. This result is consistent with the negative sign of the variables for public investments and social spending and the same conclusions apply.

In sum, it is inferred by the primary balance model that state governments have been faced with varying factors influencing their degree of compliance with the balanced budget rules. More importantly, budget surpluses were achieved almost invariably by means of expenditure cuts, given the fact that the share of federal transfers to states is fixed and mandatory while tax rates are defined in the Federal Constitution and thus very difficult to alter. Also, the impacts of such budget surpluses of the Brazilian states on their economic growth were conditional not only on the budget composition of a particular state at a particular moment in time, but also on socioeconomic indicators of each state, as the second model implies.

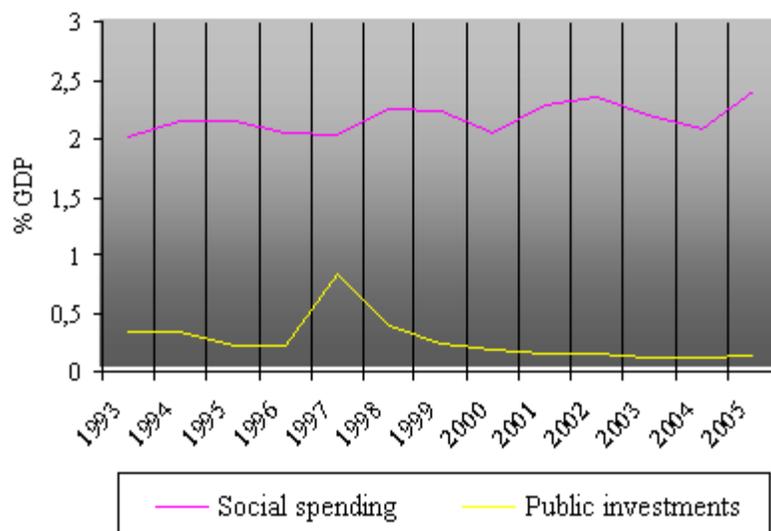
In the second equation we focus on the significance of the estimators on poverty rate changes. Undoubtedly, there is a potential degree of collinearity between the poverty rate-- as a share of the population aged 15 and older-- and the other socioeconomic indicators, i.e., the poorer the state, the higher its illiteracy rate or income inequality index,⁶ whereas the lower its GDP per capita. However, using differences other than levels helps mitigate such problem. Another limitation of the model is a relatively low R^2 showing that the equation misses the influence of extra concurrent factors. While fully consistent with my hypothesis, the results do not eliminate alternative explanations for changes in the poverty rate in Brazil, adding to the selected variables. Notice that the variable for fiscal rules is significant and positive only to indicate that after 2000 poverty in Brazil has been increasing at a faster pace than it was before the rules, providing support for our argument.

Although Brazilian states with lower-income population raise less tax revenue than the wealthier states, tax revenue increases as well as more federal aid tend to decrease poverty as state governments will have more money available for the provision of public goods and services. The same holds true for the negative association of changes in public debt payments with variations in poverty is in line with the notion that indebtedness might well be used to finance poverty alleviation initiatives. However, the variable's lack of significance does not allow for conclusive inferences in this respect.

Improvements in infrastructure investments would also decrease poverty, as implied by the negative sign of its variable. The question is why public investments are not statistically significant in the model. To a great extent, the answer lies in the fact that the Brazilian states have fallen short of growth-oriented policies, given a history of patronage, corruption and fiscal irresponsibility. Conversely, the coefficient of social spending is strong, as recent amendments to the Brazilian Constitution mandate subnational governments to fund basic social policies, such as education and public health.⁷ Furthermore, one has reasons to believe that in a country where about one third of its citizens live under the poverty line (half of minimum wage per capita), spending hikes in social policies are expected to secure politicians in office electoral rewards. The graph below shows the evolution of both categories

of expenditures over the estimation period.

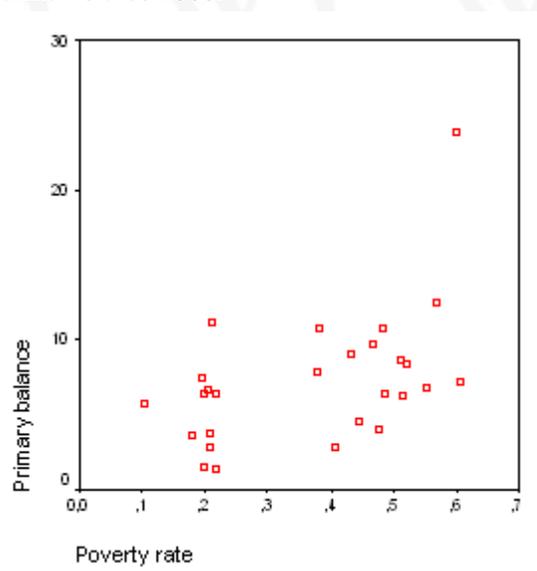
Graph 3 - Public investments vs social spending.
Brazilian states. Source: STN.



The contribution of the remaining variables to poverty rate changes is quite obvious. Changes in income inequality or illiteracy will change poverty in the same direction. This corroborates the idea that Brazil needs to invest more in comprehensive educational programs in addition to implementing income support initiatives for the poor. Just targeting the GDP per capita will not be enough. According to the results, an improvement in the potential GDP per capita by 1 percentage point would decrease the poverty trend by only .02 percent *ceteris paribus*.

Nevertheless, the impacts of fiscal policy rules on some socioeconomic indicators should not be discarded. For example, a reduction in the illiteracy rate might reflect a higher commitment to spend in education by the public sector after the fiscal stabilization than during the years of fiscal profligacy. Even so, the models' results implicate that fiscal consolidation has been more prominent in promoting socioeconomic development in some states than in others. In the scatter diagram below it is possible to compare the levels of primary balance with the poverty rate for each of the 27 Brazilian states. The pattern of the distribution provides an indication of the relation between fiscal consolidation and poverty alleviation across the states in 2005.

Graph 4 – Scatter of primary balance vs poverty rate.
Brazilian states 2005.



A clear-cut fact is that states showing enhanced fiscal performance are also states with the highest poverty rate.

The primary balance top performer is the state of Maranhao, one of the poorest states in Brazil, with 59 per cent of the population under the poverty line, second only to Alagoas (poverty rate of .60). At the opposite extreme lies the state of Rio de Janeiro with a mere 1.39 per cent primary balance. Rio de Janeiro is among the top 10 wealthiest states (poverty rate of .21 in 2005). Also, IPEA data show that states with higher illiteracy rate and poorer population have spent more money on social policies.

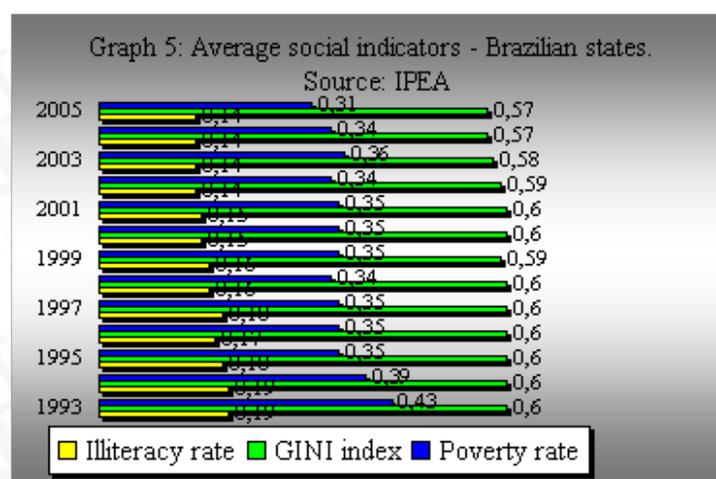
As the literature emphasizes, notably Mehrotra & Peltonen (2005) on an analysis of the effects of the European Stability and Growth Pact in Greece, Portugal, Spain, and Ireland, the size and persistence of the fiscal adjustment, its composition and the initial state of public finances are important in determining the outcome of the economic policy. Thus, variations of budget surpluses across the Brazilian states coupled with regional disparities of income and wealth help understand the unchanged status of the poverty trend in Brazil, even after the introduction of the Fiscal Responsibility Law.

5. Fiscal rules for socioeconomic development in Brazil: What is missing?

A strong argument favoring the adoption of fiscal rules to secure macroeconomic stability in Brazil was based on the view that legal constraints were needed to restrain the politically rational behavior of subnational incumbents who tended to conduct discretionary policies with a deficit bias when facing an electorate that failed to understand, or was indifferent to, budget limitations. Indeed, fiscal performance in the Brazilian states has improved since the introduction of the Fiscal Responsibility Law and the Fiscal Crimes Law. The public debt-to-GDP ratio has trended down since 2000, although it remains comparatively high by emerging-market standards, and inflation has seen its lowest level since the adoption of inflation targeting in the 1990s.

However, the average annual growth rate in Brazil has been less than 2 per cent, as seen in graph 2. Between 1992 and 2005, in more developed economies the volume of GDP grew by 2.6 per cent a year. Nonetheless, while the economies of South Korea and Ireland saw a 5 per cent growth in average, Brazil lagged far behind all emerging markets. According to a 2006 OECD survey,⁸ output in China grew 9.7 per cent, followed by India (6.5 per cent), Russia (3.8 per cent), Turkey (3.8 per cent), Mexico (3.1 per cent), and South Africa (3 per cent). In the study, one of the factors considered to be problematic in Brazil is the level of internal investments in capital formation, e.g., machinery, equipments, and installations for new industries. In Brazil, investment expenses represented 19.9 per cent of GDP in 2005, against 43 per cent in China and 27 per cent in Ireland. OECD economists also point out that the Brazilian growth rate has been about the same ever since 1992.⁹

Additionally, cross-regional patterns of distortions in social indicators remain high. Graph 5 shows the average poverty rate, the average Gini index, and the average illiteracy rate in the country. Even though such indicators have seen a little improvement around 2005, living conditions for a considerable portion of the Brazilian population remain precarious, and income disparities are still significant across regions, despite state governments' efforts to balance their accounts.



Data from Brazil's Annual National Household Survey (*Pesquisa Nacional por Amostra de Domicílios: PNAD*) clearly show that growth is strongly related to poverty reduction in Brazil. A comparison between evolutions of per capita GDP and poverty over the last 20 years suggests that the two are highly correlated over time. Per capita GDP remained stagnant between the late 1980s and early 1990s and so did poverty levels. During the 1990s, the poverty reduction was concentrated in the years between 1993 and 1995, the period of the Real Plan. Since then, both poverty and growth rates have remained relatively stable.

While it is commonsense that growth is beneficial for the poor, its effect on poverty depends on various factors. As seen in the previous section, the level of poverty observed in the Brazilian states can be in part explained by the width of its income distribution. In Brazil the top 10 per cent possess about 50 per cent of all income generated in the country, whereas the 50 per cent in the bottom of the distribution appropriate only 10 per cent of the income (Source: IBGE). In turn, a study by Barros & Mendonça (1997) demonstrates that illiteracy is the variable with the highest explanatory power on the determinants of income inequality in Brazil.

There is, however, a huge heterogeneity in poverty trends across different regions of Brazil. As regards living conditions (e.g., child mortality and basic sanitation), an overall improvement has been observed in all regions beginning in 2003, but more intensely in the more developed regions from the South and Southeast, increasing the relative differences among them. A huge disparity has been observed between the Northeast and North regions and the other regions in terms of poverty, household income per capita and illiteracy, according to the Brazilian Institute of Geography and Statistics (IBGE), the North and Northeast being the worst performers in all social indicators and also in respect to growth speed. In short, different socioeconomic development patterns are observed across the Brazilian regions that reflect both in their population's living conditions and their GDP.

Accordingly, the perception remains that massive poverty alleviation policies coupled with comprehensive educational projects are of paramount importance for the country's economic development and social progress. Graph 5 depicts a light improvement in some of the social indicators beginning in 2003 but, as recent studies suggest, this has been more a result of the cash transfer programs, particularly the *Bolsa Escola* program, the *Bolsa Familia* program, and the *Fome Zero* (Zero Hunger) program.¹⁰ It is difficult to measure in any empirical way the efficacy of these programs. However, an evaluation of *Bolsa Escola* by Soares et al. (2006), for example, did find significant effects on school attendance rates, whereas for Schwartzman (2005) the *Bolsa Familia*, despite limitations, has improved income redistribution in the country. As for the *Fome Zero* Program, which is aimed at assisting the 9.9 million Brazilian families—some 46.5 million people, the project has helped diminish extreme poverty by half in fifteen years, according to the 2007 Brazilian Monitoring Report on Millennium Development Goals.

On the other hand, the problem concerning state governments being under increasing pressure to reduce all expenditure categories resulted in an increasingly limited ability of state administrations to borrow to finance productive, growth-enhancing infrastructure projects. Additionally, although a fall in the level of public debt might have been beneficial for fiscal consolidation in the short-term, borrowing to finance public investments would possibly be able to yield returns in the future or would at the very least serve to achieve immediate welfare maximizing goals. Consequently, the success of the rules-based fiscal policies in relation to their stabilization objective may have come at the cost of medium-term economic growth, preventing Brazil from earning the full benefits of fiscal stabilization.¹¹ Thus, the quality of fiscal adjustment will need to improve to consolidate the gains obtained to date with macroeconomic stabilization and to enhance economic resilience further.

The agenda for structural reform in Brazil is far from completed. Further changes will be needed to make the economy more resilient to external shocks and lift the economy's growth potential over the medium- to longer-term, so as to narrow Brazil's income gap relative to other emerging markets, which has widened since the 1980's according to the OECD study. The additional fiscal effort that will be required to put the public debt to GDP ratio on a sustained downward trajectory would need to be based predominantly on a retrenchment of current expenditure, including on pensions, rather than further curbing public investments or social spending, with their negative side effects.

Finally, achieving the goal of faster sustainable growth will require concerted policy action on many fronts. Some steps have been taken in the right direction, like a commitment to decrease interest rates and to invest in infrastructure projects, but income inequality, which is still very high in the country, will only come down as result of continuous socioeconomic development. Then, fiscal consolidation would be even more beneficial for the Brazilian states if conducted through an efficient provision of growth-oriented public policies rather than merely enforcing fiscal austerity at the subnational level.

6. Conclusions and final remarks

This paper explored the impacts of fiscal rules on certain fiscal aggregates in Brazil, more precisely the 2000 Fiscal Responsibility Law and Fiscal Crimes Law, which together have imposed harder budget constraints on the fiscal behavior of state governments in order to ensure fiscal stabilization in the country. In addition, we focused on the socioeconomic dimension of the fiscal consolidation at the state level. Accordingly, we developed empirical models to test the effects of the fiscal rules on the fiscal policy stance as well as on the degree of poverty in the Brazilian states over the period 1993-05.

The statistical results point to a linear negative association between the budget balance of the states and important expenditure items, e.g., public investments, personnel payroll, and social spending. In addition, our results show that fiscal consolidation in Brazil has not proven to be beneficial for socioeconomic development in the medium term for all states invariably. We find that the fiscal retrenchment, including a lower level of public debt, was more advantageous to socioeconomic development in the wealthier states, further augmenting the income gap among different regions of the country.

It has also been demonstrated in the models that fiscal consolidation would have been more effective for promoting socioeconomic development if the rules were accompanied by measures aimed at reducing income inequalities. Therefore, in addition to any rules-based penalties for non-compliance, socioeconomic indicators of an individual state should influence its desired level of fiscal stabilization and socioeconomic development. Thus, in line with previous literature about the effects of fiscal consolidation on economic output, the work draws the conclusion that the success of the rules for sustained economic growth depends not only on enforcement mechanisms (the prospect of punishment for not abiding by the balanced budget rules) but also on the rules' potential to foster medium term social-economic development.

Accordingly, the factors leading to differences in the social indicators of the Brazilian states might demand the redesign of the budget balance rules at some point in the future. Also including escape clauses or objective criteria for loosing the rules' limits should be seen as a necessary step towards securing more investments in infrastructure, thus effectively contributing to growth and development. The consequences of ignoring such evidence could lead to the notion that fiscal rules are inherently doomed to failure.

Yet this is clearly an open avenue for research, as different stages of economic development may suggest the need for controlling additional sources of variability. Thus, further country specific analysis will be necessary to develop our understanding and to be able to provide guidance on how long-term growth can be effectively promoted by fiscal policy rules while maintaining macroeconomic stability.

Endnotes

1 I am grateful to Enivaldo Rocha and Marcus Melo of the Public Policy Research Center, UFPE< for their stimulating comments on earlier versions of this paper, but retain responsibility for errors.[Return](#)

2 In Latin America, fiscal rules have been adopted in Argentina, Brazil, Colombia, Ecuador, and Peru. [Return](#)

3 According to a 2003 study by the European Commission, only half of the fiscal consolidation episodes undertaken in EU countries in the past three decades have been followed by an immediate acceleration in economic growth. In addition, the European Commission reports that fiscal consolidation has a positive impact on output in the medium term if it is conducted through expenditure retrenchment rather than through tax increases. [Return](#)

4 Whereas we consider a breakdown of fiscal balances, the study by Afonso et al. (2003) used total government spending in order to evaluate the level of public sector efficiency. [Return](#)

5 The importance of grant aid flows for intergovernmental fiscal coordination has long been pointed out in the political economy literature, particularly in studies by Musgrave & Musgrave (1973). [Return](#)

6 The Gini index measures the extent to which the distribution of income among individuals or households within a state deviates from a perfectly equal distribution. A value of 0 represents perfect equality, a value of 1 perfect inequality. [Return](#)

7 The Brazilian Institute of Applied Economics (IPEA) provides the following classification for social policies in Brazil: policies of agriculture, public health and sanitation, education and culture, labor, social assistance and social security. [Return](#)

8 OECD Economic Surveys, Volume 2006, Number 18, pp. 31-71. [Return](#)

9 Source: *O Estado de São Paulo* newspaper, 04/02/2007. [Return](#)

10 The *Bolsa Família* and *Bolsa Escola* are income transfer schemes - known as conditional cash transfer (CCT) - that give poor people a monthly cash allowance from the government as an incentive for parents to invest in their children's education and health. The *Fome Zero* program consists in a government strategy to guarantee a right to

access basic food. The program ranges from giving direct financial aid to the poorest families to giving access to credit. [Return](#)

11 On the influence of socioeconomic variables on fiscal outcomes in Brazil, see, for example, Neto & Borsani (2004). [Return](#)

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