Vice Presidency of Sectors and Knowledge
Research Department
Institution for Development Department

Fiscal Rules and the Behavior of Public Investment in Latin America and the Caribbean: Towards Growth-Friendly Fiscal Policy?

RG-K1198

1. Background and Justification

Igniting the domestic engines of economic growth remains a crucial challenge in Latin America and the Caribbean (LAC). While fiscal policy has the potential to boost economic growth through various channels, distortions in public expenditure composition are contributing to reducing already low levels of investment (Izquierdo, Pessino and Vuletin, 2018; Cavallo and Serebrisky, 2016). In particular, the share of public investment in total public expenditure has been declining over time (Izquierdo, Pessino and Vuletin, 2018), and the bias against public investment is reinforced by the way in which governments allocate spending over the business cycle: countries forced to cut capital expenditures in bad times do not fully return to spending levels during good times (Ardanaz and Izquierdo, 2017). Moreover, in the typical Latin American country, real public investment falls by 10% during fiscal consolidation years, an effect that is more than double (and up to triple) that in other developing economies (Cavallo and Powell, 2019).

Such dynamics are problematic in terms of equitable long-term growth prospects, for three interrelated reasons. First, there is ample evidence documenting differential multiplier effects across public expenditure categories: estimates suggest that while the multiplier of current spending on output is virtually zero in the medium run (i.e., 2 years after the increase in spending), the effect of a one dollar increase in public investment is about one dollar on output over the same period on average, and increasing as economies grow below potential (Abiad et al., 2016), when public investment efficiency is high (Furceri and Li, 2017), or when the initial stock of public capital is low (Izquierdo et al., 2018). Secondly, the estimated macroeconomic costs of not investing to expand capital stocks in infrastructure sectors are large, and they increase over time: according to recent estimates for a representative sample of LAC economies, failure to add new capital to existing stocks is estimated to cost approximately 1 percentage point of forgone GDP growth on impact, and costs could go up to 15 percentage points of forgone growth if the policy persists over a 10-year horizon (Cavallo and Powell, 2019). Finally, deinvestment is not only costly for growth, but also regressive, since poor households devote a higher share of consumption to paying for infrastructure services. On average, the income loss associated with deinvestment across households in the poorest 40% of the distribution is 60% larger than the loss across the richest two quintiles of the income distribution.

The imperative to boost economic growth in the region is coupled by the need to consolidate public finances in a majority of countries, with sizable required fiscal adjustments in several of them. The adoption of rules-based fiscal frameworks has been a common strategy to constrain excessive deficits, and there is evidence that properly designed rules have been effective at improving fiscal performance around the world (Eyraud et al., 2018; IMF, 2009). However, poorly designed fiscal rules may entail undesirable side effects in terms of budget composition. Pressure to comply with fiscal targets provides an additional incentive for myopic policymakers to reallocate spending away from spending items with longer-term benefits (Beetsma and Debrun, 2007; Peletier et al., 1999). As a result, to achieve formal compliance with rules, countries may be encouraged to compress public investment.

Given these potential side effects, countries are advancing in reforming their rules-based fiscal frameworks by incorporating elements that could directly or indirectly contribute to protecting public investment levels over time. For example, one of the most recent innovations includes the adoption of limits on the growth rate of current expenditures and/or mechanisms aimed at providing higher levels of policy adaptability in response to shocks (e.g., structural targets, well defined escape clauses). Other countries directly exclude public investment from the perimeter of the fiscal target. While there is some evidence about the effects of some of these rules in large-N analysis (Ardanaz et al. 2019; Guergil et al., 2017), understanding how they operate in practice, their effects on policy outcomes, and potential tradeoffs requires in-depth, country-specific analysis.

2. Objective

How do fiscal rules affect the behavior of public investment in LAC? What types of specific improvements in fiscal institutions could help prevent capital expenditure from losing ground against current expenditures during good times and safeguard public investment from large budget cuts during bad times? Are there trade-offs between fiscal sustainability and the protection of public investment over time? The main objectives of this research project are: i) To gain a deep understanding on the effects of fiscal rules in LAC at a country level with a special focus on growth-friendly expenditures (public investment) and ii) provide specific policy recommendations to improve fiscal rule design in the region. As countries move forward in strengthening their policy management toolkits through rules-based fiscal frameworks, countries could consider including elements related to the behavior of public investment in the design of the rules. This could add a growth-enhancing dimension to the fiscal sustainability concerns that have typically been the focus of fiscal rules in the past.

3. Scope, Methodology and Data

Scope: Each study is likely to focus on one country (or a maximum of two) at the national level, and where pertinent, take the subnational level of government into account. While preference will be given to countries with current or past experience with fiscal rules, we also invite proposals from countries that have not yet introduced fiscal rules but where, given current fiscal policy challenges, they could be considered an important policy tool. Table 1 presents a description of the various types of fiscal rules prevalent across countries in the region.

Methodology: To understand the effects of fiscal rules on public investment (and fiscal outcomes in general) at the country level, the project will combine two empirical strategies. The first is based on a “narrative” analysis of the determinants of fiscal rules that seeks to identify underlying conditions surrounding fiscal rule adoption and lessons learned with their implementation. The second is a quantitative approach, including the evaluation of rules effectiveness, and simulation exercises of fiscal trajectories with alternative fiscal rule designs.

-The *narrative* analysis seeks to document the determinants of fiscal rule adoption, and identify key lessons learnt with the implementation of fiscal rules in different countries. Episodes of fiscal rules modification, replacements of an existing rule by another, as well as the removal or suspension of fiscal rules, will be documented.[1] Through this description, we seek to gain an in-depth understanding of the context in which fiscal rules emerge, the challenges faced by policymakers when trying to implement them, the political process supporting/inhibiting its application, the actual functioning of the rule, and supporting institutional arrangements.[2] Such narrative episodes must be documented with diverse data sources, including laws, drafts of proposed laws presented for parliamentary discussion, interviews with key policymakers and politicians, and newspaper articles, as well as other possible sources.

-The main objective of the *quantitative analysis* is to provide an empirical assessment on the performance of specific fiscal rules and discuss potential reform alternatives. First, we seek to measure the compliance record with different types of rules, understanding

[1] This analysis is not limited to documenting episodes in which fiscal rules were implemented, but also includes those in which those rules were tried and not finally implemented or were blocked.
[2] Even the most sophisticated fiscal rules will not work if political incentives are not aligned (Hallerberg, Scartascini, and Stein, 2009).

different targets, comparing targets to actual outcomes, and analyzing the reason(s) for deviations. Secondly, the synthetic control method (Abadie et al., 2010) may be used to estimate counterfactual levels of fiscal variables after fiscal rule introduction for each country.[3] Thirdly, case studies should include “counterfactual” exercises whereby the actual behavior of public investment is evaluated against (at least two) alternative fiscal rules that aim to protect either directly or indirectly public investment (see Caceres and Ruiz-Arranz, 2010, for an example of this approach). Alternatively, a general equilibrium modelling approach can be followed, calibrated to a particular country, in which fiscal outcomes can be contrasted against counterfactuals that introduce (at least two) fiscal rules protecting fiscal investment. Finally, based on simulation exercises of debt trajectories, case studies will evaluate debt sustainability implications of the different fiscal rule frameworks previously chosen specifically designed to allow more room for capital expenditures (see David and Novta, 2016, for a country-specific application).[4]

Data: Each team will be expected to assemble a time series dataset on the country (or countries) chosen. This dataset should include basic information regarding the evolution of macroeconomic and fiscal variables, with a particular focus on public spending composition (current vs. investment spending). With respect to public investment, we seek to further distinguish infrastructure investment (energy, transport, water and sanitation) from other types of public investment (such as education or health). Historical as well as forecast economic data, based on official sources and/or the IMF, are required.

[3] See Asatryan et al. (2018), Mbaye and Ture (2018), and Eliason and Lutz (2016) for applications of the synthetic control method in the context of evaluating fiscal rules effectiveness.
[4] For standard debt sustainability analysis (DSA), see Borensztein et al. (2013) and references therein.

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Table 1. Fiscal Rules across LAC

Country	Expenditure Rule	Budget Balance Rule	Debt Rule	Revenue Rule
ARGENTINA	General Government (GG) Primary net current expenditure cannot grow faster than inflation.	--	--	--
BAHAMAS	Public sector current expenditure cannot grow higher than long-term nominal GDP growth (after meeting 2020-2021 target)	Decreasing fiscal deficit target until 2020-2021 (0.5% of GDP after)	<=50% of GDP	--
BRAZIL	Central Government (CG) primary real expenditure cannot grow faster than annual inflation.	--	Ratios of net debt to net revenues limited to certain thresholds for SNG	--
CHILE	--	Structural balance of the CG should be 0% of GDP (previously- 1% of GDP).	--	--
COLOMBIA	--	Decreasing structural fiscal deficit target of the CG until 2022 (1% of GDP from then on)	--	--
COSTA RICA	Limits nonfinancial public sector (NFPS) current expenditure growth, according to CG Debt-to-GDP ratio and growth rate of GDP	--	--	--
ECUADOR	CG total expenditure cannot grow higher than potential GDP growth.	Primary balance cannot be negative.	<=40% of GDP	--
EL SALVADOR	NFPS Current expenditure <= 18.5% of GDP. Current expenditure (wage bill and goods and services) cannot grow higher than nominal GDP growth	Primary balance cannot be negative.	<=45% of GDP (65% of GDP, including pensions).	Tax Revenues >= 17 % of GDP
HONDURAS	CG current expenditure cannot grow higher than real GDP growth (average	NFPS fiscal deficit <= 1% of GDP (2019 onwards)	--	--

	previous 10 years) plus inflation (next year).			
JAMAICA	--	CG overall balance cannot be negative.	To bring public sector debt down to 60% of GDP or below by 2025-2026	--
MEXICO	Public sector structural current spending cannot grow higher than potential GDP growth. This covers all current primary expenditures, except outlays governed by automatic rules.	Targets on public sector borrowing requirements set in line with debt sustainability	--	--
PANAMA	NFPS current expenditure may not exceed the growth of potential GDP plus inflation.	Decreasing fiscal deficit target until 2022 (1.5% of GDP from then on)	--	--
PARAGUAY	i) The annual increase in public sector primary spending may not exceed the inflation rate plus 4%. ii) Public wage bill can only grow according to proportional increases in the minimum wage	CG annual deficit <=1.5% of GDP	--	--
PERU	i) GG total expenditure real growth cannot be higher than the upper limit of long-term GDP growth rate range (+/- 1 p.p); ii) GG current expenditure real growth rate cannot be higher than the lower limit of long-term GDP growth rate (+/- 1 pp).	NFPS fiscal deficit <= 1% of GDP	NFPS Debt<= 30% of GDP	--

Notes: CG (Central Government); GG (General Government); NFPS (Non-Financial Public Sector); SNG (Subnational Governments).
Source: Author's compilation based on Barreix and Corrales (forthcoming); Lledo et al. (2017); IMF (2017) and national legislation.

4. Possible Outline of the Studies

1. Brief overview of fiscal policy outcomes in the selected case(s), with a special focus on the behavior of public investment/capital expenditures vis-à-vis current expenditures. What are the main stylized facts regarding the composition of public expenditures and the behavior of current/capital expenditures?

2. Narrative Analysis. What political and economic factors led to the introduction of fiscal rules in the country under study? What challenges did policymakers face when implementing the fiscal rule under study?

3. Quantitative Analysis. a) Fiscal rule compliance descriptive statistics, both at a general level and showing public investment behavior during the implementation of fiscal rules: was public investment sacrificed in order to comply with the rule?; b) Synthetic control method to analyze public consumption/investment and output growth levels before and after fiscal rule introduction, c) Counterfactual exercises: what would the behavior of public investment (and current spending) have looked like if a rule aiming at protecting either directly or indirectly capital expenditures were envisaged?; Alternatively, points b) and c) con be covered using a general equilibrium modelling approach. d) Debt sustainability analysis (DSA): based on standard DSA, what are the implications of such rules in terms of debt sustainability?

4. Policy recommendations. Based on the previous analysis, what type of fiscal rule would work best for the country under analysis?

5. Content of the Research Proposals

Research institutions must submit a proposal detailing the following:

- Relevance of the country case(s): What are some specific insights that the country case(s) will bring to the overall project? Why should we include the country in the study?
- Brief discussion of fiscal policy outcomes, with particular emphasis on behavior of public investment, fiscal rule design and compliance record in the country under study
- Brief discussion of the main actors and institutions involved in the fiscal/budget-making process
- Methodology to be used in the case study, including the data and proposed information sources and a list of proposed interviews, as well as a statement regarding the degree of access to the main interviewees.
- Potential relevance of the policy implications, lessons learned, and conclusions to be extracted from the case

In addition, proposals must include:

- The name of the research leader and a list of the researchers who will be involved in the project. The center should justify the choice of the research team, highlighting their capacity to meet the objectives of the project, including relevant prior experience. Curricula vitae of the researchers may appear in a separate annex. Subsequent substitutions for researchers originally specified in the proposal may be made with prior approval from the IDB Network coordinator, but the project leader should lead the entire project to completion.

- A budget (in a separate annex) indicating the time and resources that will be used within the context of the research work plan. The budget proposed by the research center should disaggregate items financed by the IDB contribution and those financed by the research center. The budget should distinguish between amounts assigned to professional honoraria, data collection, overhead and other major categories of research expenditures. The proposal and corresponding budget must be sent in separate files.
- Institutions need to provide the name and contact information of their legal representative, with authority to sign contracts with the IDB, if selected to conduct the study.
- An indicative proposal for the diffusion strategy of the final version of the paper and its policy implications.

Note: Proposals must be submitted in English.

6. Selection Criteria

Only research institutions (including think tanks) may present proposals. Research teams will be selected according to three main factors:

1. Relevance. Research teams must spell out in detail the relevance of the country case to meet overall project objectives stated above.
2. Methodology and Data. The proposals should explain in as much detail as possible how they will approach the subject under study. Data collection issues should be spelled out in detail (what sources of data will be used, what interviews the team plans to conduct, the chances of success in obtaining such data/interviews, the channels they are planning to use to obtain data, among other considerations).
3. Team Experience. The relevance of the team's experience for the proposed project will be a very important criterion in the selection process. Previous experience in research combining quantitative and qualitative tools of analysis, or background research on political economy showcasing the team's ability to clearly describe the decision-making process leading to fiscal rule adoption based on qualitative sources of information, would be a plus.

7. Proposal Submission

Interested research institutions should submit a proposal no later than September 2, 2019 using the web submission form that is provided in the Call for Proposals announcement. If you are unable to submit the form electronically, please send an e-mail to red@iadb.org.

Proposing research institutions should be registered as Research Network members (contact Elton Mancilla at red@iadb.org) and should be based in the Latin American and Caribbean region. US and European institutions do not qualify as members of the Research Network. However, researchers from the United States and Europe can participate in research teams from proposing institutions.

8. Coordination and Schedule

The project will be administered by the Research Department (IDB/RES), under the technical coordination of Alejandro Izquierdo (IDB/RES), Eduardo Cavallo (IDB/RES), Martín Ardanaz (IDB/FMM), and Teresa Ter-Minassian and Carlos Vegh as external advisors.

The tentative schedule of activities is as follows:

- **September 2, 2019**: Due date for proposal submissions. Institutions should make sure to submit complete documentation to the evaluation committee. Complete documentation includes: registration form with all requested information, the research proposal, budget, and curricula vitae (CVs up to three pages long).
- **September 9, 2019**: Announcement of selected research proposals.
- **October 3-4, 2019**: First Discussion Seminar in Washington, D.C., with the technical directors of the projects and the coordinating committee for the purposes of discussing methodological issues and presenting a preliminary analysis of some of the main issues to be explored in each study.
- **October 17, 2019**: Due date for receiving an annotated outline of the research paper, incorporating the changes associated with the comments received in the discussion seminar.
- **December 20, 2019**: Due date for receiving a first draft of the research paper.
- **February 27-28, 2020**: Second Discussion Seminar in Washington, D.C. with the technical directors of the projects and the coordinating committee to discuss the first draft of the research papers.
- **April 30, 2020**: Deadline for a final version of the research papers, including a summary that discusses policy lessons. Data should be submitted by this date. Deadline for presenting a list of the most relevant dissemination activities (e.g.,

events, seminars, workshops, etc.) to discuss the main policy lessons of the country study with local authorities. Research papers must follow the IDB Manual of Style for working papers.

Studies that are of good quality will be considered for publication in the IDB working paper series.

9. Financial Contribution and Payment Schedule

The IDB will contribute up to US$25,000 or its equivalent in local currency to the total budget of each study, depending on the scope of work proposed. The payment schedule is as follows:

- 20 percent within 30 days of signing the formal agreement between the IDB and the respective research center.
- 10 percent within 30 days of presenting and approval by the IDB of the annotated outline following the first seminar.
- 30 percent within 30 days of presenting and approval by the IDB of the first draft of the research paper.
- 40 percent within 30 days of presenting and approval by the IDB of the final research paper and upon delivery of the datasets utilized by the study to the IDB.

10.References

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