

Identifying and Mitigating Fiscal Risks from State-Owned Enterprises (SOEs) ¹

Identificación y mitigación de los riesgos fiscales en las empresas estatales

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Abstract

This paper focuses on the fiscal risks created by state-owned enterprises (SOEs). It analyzes the main sources of such risks, in particular flaws in their fiscal, including quasi-fiscal operations; excessive extraction of SOEs resources by their owner governments; preferential access of SOEs to financing; and information asymmetries between the SOEs and their owners. These are illustrated with reference to selected country experiences, mainly in Latin America. Based on this analysis, the paper outlines a number of policy recommendations to identify and mitigate such risks.

Keywords: fiscal risks, state-owned enterprises

JEL codes: H32, E62, O23

Resumen

Este artículo se centra en los riesgos fiscales creados por las empresas estatales. Analiza las principales fuentes de esos riesgos, en particular las fallas en sus operaciones fiscales, incluidas las cuasifiscales; la extracción excesiva de los recursos de las empresas estatales por parte de los gobiernos; el acceso preferencial de estas empresas a la financiación y las asimetrías de información entre ellas y sus propietarios. Todo esto se ejemplifica mediante las experiencias de países seleccionados, principalmente en América Latina. Basado en este análisis, el trabajo describe una serie de recomendaciones de políticas para identificar y mitigar dichos riesgos.

Palabras clave: riesgos fiscales, empresas estatales.

Códigos JEL : H32, E62, O23

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Abbreviations

ALM	Asset and Liability Management
CFE	Federal Electricity Commission (Comisión Federal de Electricidad), Mexico
DIPRES	Ministry of Finance (Dirección de Presupuestos, Ministerio de Hacienda), Chile
FONAFE	National Fund for the Financing of State Business Activity (Fondo Nacional de Financiamiento de la Actividad Empresarial del Estado), Peru
MoF	Ministry of Finance
OECD	Organisation for Economic Co-operation and Development
PDVSA	Petróleos de Venezuela
PEMEX	Petróleos Mexicanos
SBC	soft budget constraint
SEDAPAL	Water and Sanitation Enterprise (Servicio de Agua Potable y Alcantarillado de Lima), Peru
SEP	Enterprise System (Sistema de Empresas), Chile
SEPI	State Holding Company (Sociedad Estatal de Participaciones Industriales), Spain
SNIP	National Systems of Public Investment (Sistemas Nacionales de Inversión Pública)
SOE	state-owned enterprises
WTI	West Texas Intermediate

I. Introduction

State-owned enterprises (SOEs) can create risks for public finances. These risks are especially evident when a country has chosen to define its fiscal targets in terms of the public sector as a whole (i.e., including SOEs), but they are also present when the targets only cover the general or central government, because SOEs' finances can, and often do, have adverse repercussions on government finances.

There is ample empirical evidence that SOEs have been a source of substantial risks for their government owners, and that such risks have materialized in many cases, with sizable costs for national budgets. A recent study by the IMF staff (Bova and others, 2016), using a sample of 80 advanced and emerging market countries, found that over the period 1990–2014 contingent liabilities from SOEs accounted for 14% of all identified contingent liabilities in the sample, and for 18% of realized liabilities entailing fiscal costs; and that the fiscal costs from SOEs bailouts averaged the equivalent of 3% of GDP, but reached as much as 15% of GDP in the most extreme case. As a matter of fact, realized liabilities from SOEs constituted the fourth largest source of fiscal costs (after those from the financial system, legal rulings and subnational governments) on average in the sample.

This section argues that the main source of fiscal risks from SOEs is the widespread inability of national and subnational governments to impose a credible hard budget constraint on their enterprises. This inability may reflect flaws in the corporate governance of SOEs or in their fiscal governance, namely the financial relations between the SOEs and their owner governments.

Section II discusses the main causes of soft budget constraints (SBC) on SOEs, focusing in particular on flaws in their fiscal governance, including quasi-fiscal operations; excessive extraction of SOEs resources by their owner governments; preferential access of SOEs to financing; and information asymmetries between the SOEs and their owners. The section underlines that the severity of the fiscal risks posed by the SOEs can be influenced by factors of an economic (e.g., the nature and relative weight of the SOEs' activity in the economy), social (e.g., the social sensitivity of the goods and services they provide), and institutional and legal nature (e.g., governance arrangements, control systems, fiscal rules applying to the SOEs, and transparency requirements). The multiplicity and variety of potential sources of SBC on SOEs implies that appropriate approaches to identifying, managing, and mitigating fiscal risks from them need to be country-specific, reflecting the specific mix of the above-mentioned in the country in question. There is no one-size-fits all strategy in this area.

Nevertheless, a number of broad lessons on appropriate policies and reforms can be learned from different country experiences, a key one being the need to minimize discretion in the relations between governments and their SOEs.

Section III focuses on several aspects of those lessons, including policy options to: reduce risks from quasi-fiscal operations; improve dividend policies for SOEs; make borrowing controls on them more effective; and strengthen SOEs' financial management systems, and transparency requirements. This section does not cover reforms in SOEs' corporate governance arrangements (which are often crucial to harden their budget constraint), since these are analyzed in other sections of this book.

While referencing on occasions relevant experiences of countries outside Latin America, the section focuses on the experiences of a sample of countries in the region, drawing on background case studies prepared for this purpose, including on Argentina, Brazil, Chile, Colombia, Mexico, Paraguay, and Peru. Section IV summarizes the main conclusions of the section.

II. Sources of Fiscal Risks from SOEs

The concept of SBC was first coined by J. Kornai in 1992, to characterize the relations between governments and SOEs in socialist economies, but, as evidenced by the analysis below, it is also fully applicable to such relations in capitalist economies at all levels of development. A SBC arises whenever a government is unable to credibly commit not to bailout (through various explicit or implicit means of support) enterprises of which it has sole or controlling ownership.

A SBC affects negatively SOEs' performance by encouraging them to take excessive risks, and by sapping their incentive to be efficient. SOEs are vulnerable to exogenous shocks much as private enterprises operating in the same sector, including macroeconomic shocks (cyclical demand fluctuations, and changes in international commodity prices, interest rates, credit availability, and exchange rates), natural disasters (droughts, hurricanes, earthquakes), or civil strife. But, SOEs may well not have the same incentives as private enterprises to prepare to withstand such shocks, because they may expect their owner (the government) to use its fiscal resources to bail them out, should the shocks materialize. The same expectation may lead SOEs to accumulate excessive debt, especially since, as discussed below, financial markets tend to exercise less discipline on SOEs than on comparable private enterprises.

While private enterprises operating in competitive markets can expect to go bankrupt if they incur protracted losses because of their inefficiency, SOEs typically do not face the threat of bankruptcy, especially if they are responsible for the provision of socially sensitive goods and services, or if they are large employers. This reduces their incentives to control costs and improve the quality of their output. It

may also provide an incentive to SOEs' managers to privilege the maximization of the size of the enterprises, at the expense of profitability.

A SBC can be the result of both policies that affect adversely the SOEs' finances, and policies that unduly favor them. In the first case, SOEs that are put by government policies at a competitive disadvantage vis-a-vis comparable private firms, without explicit and transparent compensation, can understandably come to expect that the government would step in to bail them out if they came under financial stress. In the second case, SOEs may be enabled by market expectations of an eventual bailout, and a consequent easy access to credit, to incur protracted operating losses, or to undertake unaffordable investments.

In what follows, the main potential sources of SBC on SOEs are discussed in some detail. Table 1 in Annex I summarizes their occurrence in the Latin American countries analyzed in the background studies.

1. Quasi-fiscal operations

A major source of SBC of the first type is the imposition by governments on SOEs of financial burdens stemming from public policy objectives and practices not compensated through commensurate budgetary transfers. Such quasi-fiscal burdens on SOEs may be imposed through price, labor market, or other types of regulations, and are quite pervasive in both Latin America and other regions (see Annex I, and Ossowski, 2014).

Over time, significant resort to uncompensated quasi-fiscal activities tends to lead to recurring losses, underinvestment, and/or excess borrowing by the affected SOEs. Ultimately, the government has to step in to bailout the enterprises through transfers, equity increases and, in the more extreme cases, the assumption and restructuring of their debt, often at substantial budgetary cost (as for example, in several Latin American countries, China, and the UAE in past decades). Even in the absence of financial crises, underinvestment by the SOEs can affect adversely the economy's growth potential and the population's access to public services of acceptable quality.

There are strong political economy incentives for governments to resort to uncompensated quasi-fiscal operations through SOEs. Explicit budgetary subsidies are highly visible, and may require offsetting cuts in other spending, especially in the presence of numerical rules constraining the government's budget balance and/or debt. In contrast, the erosion of the SOEs' profitability, capacity to invest, and ultimately financial soundness, resulting from the regulatory burdens, may not become fully apparent for years, often beyond the time horizon relevant to politicians. The main sources of quasi-fiscal burdens on SOEs are briefly discussed in turn in what follows:

- The setting of regulated prices of goods and services provided by SOEs (in particular, energy and utility prices) at levels that do not allow cost recovery at an adequate degree of efficiency. A number of countries in Latin America have made significant progress in recent decades in setting up independent agencies responsible for regulating energy and utility prices on the basis of transparent formulas, linking prices to projected cost and demand factors in the framework of efficient enterprise models.² However, in many instances, regulated tariffs are adjusted only at relatively lengthy intervals, and therefore lag cost developments, leading to uncompensated losses by the affected SOEs. Moreover, in some cases, statutory formulas are suspended, and the prices of SOE- provided goods and services that have a large weight in the consumer price index are frozen, or adjusted only partially to cost developments, by the government, for the purpose of moderating the headline inflation rate. Such policies have been used extensively by previous governments in Argentina, Brazil and Mexico; and the affected SOEs typically were only partially compensated for the associated costs. In the more recent period, the current governments in these countries have taken important steps to bring energy and some utility prices more in line with relevant cost factors, thereby reducing the attendant quasi-fiscal burdens on the SOEs in those sectors. Uncompensated quasi-fiscal burdens on SOEs from government-imposed pricing policies are also quite common in Central American and some Andean countries. In contrast, in Chile, while the tariffs of some SOE- provided services (e.g., the metropolitan transport system of Santiago) are set at levels that do not ensure full cost recovery, the affected SOEs are compensated for the shortfall through transparent budgetary transfers.
- Labor market policies. In some Latin American countries (e.g., Paraguay) employment by SOEs is subject to the regime applicable to civil servants. This reduces the ability of SOEs to adapt their workforce to changing needs that reflect developments in demand, technological changes, or financial constraints. It may also involve excessive compression of pay differentials in SOEs, resulting in too high floors for the wages of their low-skilled workers, while reducing their ability to attract highly skilled ones. Even in countries (like Colombia or Peru) where SOEs' employees are subject to the same legal regime as those of private enterprises, it has proven politically difficult in some instances to use the limited margins of flexibility afforded by the labor legislation to adjust the workforce to cyclical or structural declines in the SOEs' output. The power of trade unions is often stronger, especially in the larger SOEs, placing further constraints on the

2 These formulas in some cases allow cross-subsidization among individual firms' product lines, or types of consumers. For example, electricity tariffs for industrial users are frequently set at levels that cross-subsidize small residential users. Similarly, retail prices for different fuel products may reflect cross-subsidization mechanisms. Such policies, which are generally motivated by distributional considerations, may involve costs in terms of allocative efficiency.

management of their workforce.³ Judicial rulings on labor disputes have also been a source of risk for the finances of some SOEs in recent years.

- Investment policies. SOEs providing public services such as electricity, water and sanitation are frequently asked to undertake financially unviable investments to expand the coverage of such services, in particular to remote rural areas. The attendant costs, both in terms of funding the initial investment, and then operating and maintaining it at a loss, often are not carefully evaluated and compensated through explicit budgetary transfers.
- Requirements for the SOEs to undertake activities unrelated to their core business. An iconic example, is the use by Venezuela of its national oil company (PDVSA) to carry out a range of social expenditures, which has contributed to a deep de-capitalization of the enterprise, and to its woeful under-investment in recent decades.
- Requirements for SOEs to use national suppliers and equipment, even if costlier than those available from foreign suppliers. Brazil made extensive use of such requirements, especially in the energy sector, during the last decade, a fact that undoubtedly contributed to substantial delays and cost overruns in large strategic projects, such as the exploration of the Pre-sal oil fields.
- Requirements for SOEs to use public procurement regulations and practices, which are typically more cumbersome and slower than those of private enterprises. This can also place significant regulatory burdens on SOEs, and reduce their competitiveness vis-à-vis private firms. Such requirements, often motivated by transparency concerns, are quite common in Latin American countries.
- Pressures on SOEs to tolerate payment arrears from national or subnational government units or from other SOEs (as for example in Argentina, under the Kirchner governments, or in some Central American countries), and/or distribution losses from unauthorized tapping of the network of services (such as electricity or water) provided by the SOEs. Such distribution losses are widespread in developing countries (e.g., India) but are also not uncommon in Latin American emerging markets.
- Politically motivated interferences in the SOEs' day-to-day operations, including in decisions on the location and types of investment, recruitment of staff, procurement, etc. Such behaviors frequently entail costs in terms of efficiency, and by diluting the responsibilities and accountability of SOEs' management and Boards, justify their expectations to be bailed out in case of financial difficulties. In more extreme, but unfortunately not uncommon, cases, such interventions are accom-

3 For instance, some SOEs' collective agreements require the enterprise to give preference in recruitment to relatives of current employees. Strong union power likely contributes to the well-documented fact that, when faced with a downturn in sales, SOEs reduce their workforce less than comparable private enterprises (Lazzarini and Musacchio, 2015).

panied by outright corruption for personal or party gains, as in the recently unveiled “Car Wash” scandal involving the national oil company PETROBRAS in Brazil.

2. Excessive resource extraction from SOEs on the part of their government owners

To promote an efficient use by SOEs of the capital invested in them, their government shareholders should require them to generate rates of return comparable to those of national or international private firms operating in the same sector, provided that the SOEs have been adequately compensated for any public policy objectives imposed on their activities. The translation of this broad principle into practice is often complicated by the difficulty of fully separating commercial and quasi-fiscal activities of SOEs. In the majority of OECD countries, the government units exercising the ownership function of the SOEs (their oversight authorities) provide (more or less stringent) guidance to SOEs’ Boards and managements on expected rates of return, often in the context of approval of the multi-annual or annual corporate plans submitted by the latter. Similarly, a number of OECD countries have established standing guidelines to determine the distribution of dividends by SOEs to their national Treasuries. Some define expected dividend payouts as fixed percentages of the SOEs’ profits. Others, link expected dividend distribution to their guidelines for an optimal capital structure of the SOEs (Box 1).

BOX 1. Selected Country Practices on SOEs’ Capital Structure and Dividend Policies a

The capital structure policy for SOEs is important because it concerns (i) how, and at what cost, they finance their operations (i.e., the mix of debt and equity financing and whether it is obtained at market rates); and (ii) how SOEs use these capital resources to create value for their investors and owners (ultimately the broader public). While all companies face challenges in maintaining an optimal capital structure – in particular achieving an appropriate balance between profit reinvestment and dividend distribution – SOEs may face additional constraints because of their state ownership. SOEs can be put at a disadvantage vis-à-vis their private competitors when short-term government budgetary concerns become the predominant factors in decisions relating to SOEs’ capital structure. Avoiding such situations requires high standards of governance, and a continued focus on capital efficiency and value creation, at all stages in the SOEs’ corporate life cycle.

In most countries, the responsibility for decisions about SOEs’ capital structure is shared between the SOEs themselves and their government owners/

shareholders. However, their respective roles vary significantly across countries. According to a 2014 OECD survey, decisions about SOEs' capital structure are primarily a responsibility of their boards, with limited government involvement, in Germany, Slovenia and Lithuania. In Australia, Ireland, Netherlands, New Zealand, Sweden, and Switzerland, the respective oversight authorities provide SOE boards explicit guidelines for developing an optimal capital structure, often taking the form of an announced credit rating target, which is used as a benchmark for all subsequent decisions impacting the capital structure. In the Czech Republic, Finland, Poland and the UK, the authorities influence capital structure decisions mainly through their participation in the annual shareholders' meetings. In the rest of the OECD, recommendations by SOEs' boards about capital structure are subject to direct review and approval by the government.

Rates of return are indicators of how efficiently SOEs use the capital resources at their disposal to create value through their commercial activities. Requiring wholly commercial SOEs to achieve rates of return comparable to those of their private sector peers promotes a more efficient allocation of capital resources in the economy, by ensuring that capital is channeled to the most productive activities. However, establishing appropriate rates of return can be challenging when SOEs are engaged in both commercial and non-commercial activities, especially if those activities are not structurally separated and the financial burden of the non-commercial activities is not compensated through budgetary transfers. In such cases, many countries opt for a second-best approach of requiring a lower rate-of- return on an SOE's entire portfolio of activities.

According to the above-mentioned survey, national practices in the OECD regarding rate-of-return targets can be broadly summarized as follows.

- Rate-of-return targets established by ownership function or SOE boards In about three quarters of the reporting countries, explicit rate-of-return targets for SOEs are elaborated either directly by the authorities, or by SOE boards in close consultation with the authorities. In some of these cases, the oversight authority elaborates guidelines that are broad enough to be applicable to the entire SOE sector, while in other cases it sets annual targets for individual SOEs, taking into account sector-relevant benchmarks. In particular,
 - In three countries (Canada, Finland and Slovenia), SOE rate-of-return targets are established primarily by SOE boards, with the ownership function providing feedback on the targets through the corporate planning process.
 - In five countries (Estonia, Lithuania, New Zealand, Norway and Sweden), the ownership function provides to SOE boards quite specific guidance, including on the methodology to be used to identify the cost of capital when calculating rates of return^b In most of these cases, the guidelines are discussed with the SOEs during the annual corporate planning process, and are expected to inform

the elaboration of their annual business plans. The achievement of the targets can then be used as a basis for measuring and monitoring SOE performance.

- No rate-of-return targets

In a minority of countries, the authorities do not establish explicit rate-of-return requirements for the SOE sector. However, within this group, two countries (Ireland and Israel) reported that rate of return requirements had been developed for SOEs in regulated industries.

Dividend policies for SOEs also vary significantly across countries. According to the survey, OECD countries can roughly be divided into four groups according to the level of policy elaboration for determining annual SOE dividend pay-outs:

- No dividend guidelines or targets. In a first group of countries, which includes the Czech Republic, Estonia, Finland, Germany, Hungary, Italy, Japan and the Republic of Korea, no explicit dividend guidelines or targets are in place. Annual dividend levels are negotiated annually between SOE boards and owners at the annual general meeting, or in the framework of the annual corporate plan consultation process.

- Broad guidelines. In a second, smaller group of countries (Israel and Poland), the authorities elaborate broad guidelines, applicable to the entire SOE sector, on the factors that should be taken into account in setting dividend levels. In Canada and the United Kingdom, there is no overall dividend policy for the aggregate SOE portfolio, but dividend frameworks for individual SOEs are elaborated via consultations between SOE boards and the oversight authority.

- Explicit percentage of net profits. In a third group of countries (Ireland, Lithuania, Netherlands, Norway, Slovenia, and Switzerland), dividend expectation levels are generally calculated as a pre-defined target percentage of SOEs' net profits. The percentages vary significantly across these countries (see Table 3 of OECD, 2014).

- Linked to an optimal capital structure. In a fourth group of countries (Australia,^c New Zealand, and Sweden), the authorities communicate broad expectations regarding dividend levels, linking annual pay-out ratios to the achievement of an optimal capital structure. In some of these cases, the authorities communicate a target credit rating by which to measure the optimal capital structure, and this acts as an overarching guiding principle for annual dividend pay-out levels.

Source: This Box is largely based on OECD (2014).

a See Box 1 on p. 22 of OECD (2014) for a description of how an optimal capital structure of SOEs is identified in Australia

b Box 2 on p. 28 of OECD (2014) provides an example from Estonia on calculating rate-of-return targets based on the Capital Asset Pricing Model.

c For details see GOA (2011).

In contrast, explicit rate of return requirements are not common in Latin American countries, although in some of them, regulators take rate of return considerations into account in setting tariffs, and holding companies (e.g., the Fondo Nacional de Financiamiento de la Actividad Empresarial del Estado, or FONAFE in Peru) or the oversight authorities publish comparative information on their SOEs' rates of return, as well as frequently on those of comparable private enterprises.

Similarly, dividend distribution policies for SOEs in Latin American countries tend to be largely dictated by short-term government budgetary needs, with adverse consequences for the capital structure of the enterprises (debt to equity ratios significantly higher than in comparable private companies) and/or their capacity to invest. This is frequently exacerbated by a comparatively easier access by the SOEs to debt financing (see below). The discretionary nature of annual dividend distribution decisions by the government also makes it more difficult for the SOEs to forecast the amount of self-financing available for investments, and to plan accordingly.

Specifically, in Argentina profits recorded by SOEs included in the National Administration are fully distributed to the Treasury, and those of other SOEs are paid out as dividends or retained on a year-by-year basis, without clear guiding criteria. In Brazil, in 2009-14 both financial and non-financial SOEs were often required by the government to advance future dividends to Treasury, to help the latter meet the primary balance targets. In Chile, annual dividend payout ratios are set by ministerial decree each year, based on recommendations of the Budget Directorate (DIPRES). Similar procedures prevail in Colombia (where the decisions are made by the inter-ministerial committee CONPES), Mexico (by the Secretaria de Hacienda y Crédito Público) and Paraguay. In Peru, SOEs' profits are wholly transferred to FONAFE, whose Board (consisting of selected Ministers) determines their redistribution between the government and member SOEs (not necessarily the originating ones), based on recommendations of the holding's management. This mechanism (in practice a cross-subsidization within the FONAFE group) weakens the incentive for individual member SOEs to be efficient and generate profits.

Dividend distribution policies are not the only vehicle for excessive extraction of resources from SOEs. The latter, especially those involved in the exploitation of natural resources, may also be subject to too high tax or royalty rates. An emblematic case in this respect is that of PDVSA, which has been drastically de-capitalized over the last decade or so by the Venezuelan government. Another example is the Ley Reservada del Cobre in Chile, which requires the national copper company CODELCO to transfer 10% of its revenues to the military budget (in addition to the royalties and taxes paid to the government). In recent years, in a context of declining copper prices, this requirement has necessitated repeated recapitalizations of the enterprise. A more extreme example is that of Pemex, which has been operating with negative net worth in the last few years, since it pays out all its profits in taxes and other government fees.

3. Preferential access of SOEs to financing

As mentioned above, another source of SBC on SOEs can be preferential access to financing. This not only provides SOEs a competitive advantage over their private counterparts, thereby reducing pressures for them to be efficient, but also can facilitate excessive recourse to debt and ultimately lead to financial crises. Such preferential access can take different forms:

- Direct lending by the government to SOEs, frequently at lower than market interest rates; or providing non-financial SOEs privileged access to financing by state-owned banks. This form of preferential access is relatively uncommon in OECD countries, reflecting restrictions by the European Union on state aid, and declining state ownership of financial institutions in those countries. It is more frequent in Latin America, where governments sometimes borrow, especially abroad, on behalf of some of their SOEs, and the weight of public banks in the financial system remains relatively large. In Peru, FONAFE extends short-to-medium term loans to its enterprises. In Argentina, the share of loans to non-financial SOEs in the total portfolio of Banco Nación has grown significantly over the past decade. A similar, even more pronounced, trend can be observed for the Brazilian National Development Bank (BNDES), which in the last ten years has disbursed between 20 to 40% of its loans to state-owned enterprises (Musacchio and Lazzarini, 2014).
- Provision of government guarantees to borrowing or security issues by SOEs. Most OECD countries do not provide explicit guarantees to their SOEs, or do so only to a limited subset of them (typically large providers of essential services, such as railways and airports, or financial enterprises).⁴ A few of them levy fees on such guarantees. In Latin America, government guarantees to SOEs financing tend to be more common, and generally no fee is levied on them.
- The expectation by financial market agents that governments stand behind their SOEs, even in the absence of explicit guarantees, and would not allow them to go bankrupt in the event of severe financial difficulties. This perception of an implicit government guarantee should be reflected in lower financing costs for SOEs than for comparable private enterprises, and in a limited differentiation of borrowing terms of different SOEs. There is significant empirical evidence suggesting that this is indeed the case in a range of advanced and developing countries.

To limit fiscal risks from excessive borrowing by SOEs, governments can choose to control such borrowing through standing rules, or through various administrative mechanisms; or they may choose to rely on financial market discipline, for example by re-

4 Guarantees by local governments to municipal enterprises may be more common, but few data are available in this area.

quiring SOEs to obtain minimum credit ratings as a condition for medium to long term borrowing, or for issuing bonds. A number of OECD countries, as well as emerging markets, have chosen this latter route. However, market discipline may be weakened by information asymmetries, if transparency standards for SOEs are not sufficiently strict (see next subsection). More importantly, as mentioned in c) above, financial markets may treat SOEs' risk as equivalent to sovereign risk, and therefore lend to large SOEs beyond prudent limits reflecting the enterprises' own debt servicing capacity, in the expectation of eventual government bailouts. There are many international examples in this respect, including in Latin America PETROBRAS and PETROPERU in recent years.⁵

For this reason, most countries in Latin America rely on administrative controls by the government on SOEs' borrowing. In these countries, SOEs are frequently required to obtain authorization by the Ministry of Finance (MoF) for each borrowing operation, except short-term (less than one year) ones to finance working capital or meet other liquidity needs. Such authorizations are largely discretionary, although reportedly in many cases they are based on an evaluation of the purpose of the proposed increase in indebtedness, and of its financial sustainability. Administrative control systems can, however, also give rise to SBC for various reasons:

- They open scope for bargaining between the government and the SOEs, especially large and politically well-connected ones
- Governments may find difficult to resist demands for bailouts, if loans or bond issues that they (or their predecessors) had approved were ex-post to give rise to financial difficulties for the SOE in question; and
- Financial markets would understandably see the government as standing behind SOEs' loans or bond issues that it had approved.

For these reasons, it is crucial that SOEs' access to financing be made conditional on their meeting clear, pre-specified, and well publicized criteria, related to their capacity to service the additional debt. The role of the government, specifically the Ministry of Finance, should be one of assessing and enforcing the fulfillment of such criteria. This approach is discussed in some detail in Section III below.

4. Information asymmetries

Various types of information asymmetries can also soften the budget constraint on SOEs. Some affect the degree of control that shareholder governments have on their SOEs; others further weaken whatever discipline financial markets can exer-

⁵ Following an unsustainable borrowing binge during the Rousseff government, PETROBRAS has had to undertake severe adjustment measures, including workforce retrenchment and sale of assets, since 2016. PETROPERU substantially increased its debt, to finance an expansion and modernization of its main refinery, and has had to be substantially recapitalized by the government in 2016, in conjunction with adjustment measures.

cise on the enterprises, and/or their accountability to other stakeholders, notably the consumers of the goods and services they provide.

a) Asymmetries of information between the SOEs and the government

Relations between a government and its SOEs are typically characterized by principal-agent problems (Musacchio, Pineda and Garcia, 2016). The objectives of the government (the principal), namely pursuing certain policy goals, remedying market failures, and/or maximizing its return on the capital invested in the enterprises, may not be fully aligned with those of the boards and management of the SOEs (the agents), namely increasing the size of the firm, building up its capital, carrying out what they regard as strategic investments, or even boosting their own compensation. These differences in objectives create incentives for SOEs' managers to exploit the greater extent of information on the enterprises' operational and financial performance that they typically enjoy vis-à-vis their shareholder governments. Such asymmetries are likely to be exacerbated by:

- Corporate governance models that distribute the oversight of individual SOEs among different ministries (the Finance and/or Planning ones, the relevant sectoral one, and/or a unit reporting to the Prime Minister or President) who may also privilege different objectives, without putting in place effective coordination mechanisms. In such a context of multiple principals, the SOEs may try to minimize the government's control by strategically restricting the information provided to each principal
- A lack of clear and firmly enforced government guidelines regarding: o the SOEs' planning, budgeting, and investment selection and preparation processes o the degree of detail and timeliness of the information to be provided to the government during such processes, as well as during the implementation of the plan and the execution of the budget or investment projects o the identification, quantification and disclosure of risk factors affecting the SOE's projected operational and financial performances; and o the remedial actions to be undertaken in the event of threatened shortfall in such performances
- Weaknesses in the accounting, and in the internal and external audit systems for SOEs;
and
- Limited human resources and/or capacities in the ministerial units charged with the monitoring and control of the SOEs.

Not surprisingly, the severity of these information asymmetries varies widely across countries and over time, reflecting among other things the level of development of the country, the size of its SOE sector, and the quality of its institutions and governance.

Within the Latin America region, systems of control and monitoring of SOEs appear comparatively robust in Chile, Colombia, and Peru. In these countries, institutions (holdings or inter-ministerial committees) have been set up to coordinate the guidance provided to SOEs, with a view to minimizing the multiple principals problem; detailed guidelines are provided to the SOEs concerning the budget and investment processes;⁶ and financial reporting by the SOEs is in general reasonably timely and comprehensive. Even in these countries, however, some SOEs (e.g., the defense enterprises in Chile and the oil company in Peru) are not covered by the general rules. Information on the SOEs' operational performance is more limited and delayed than the financial one; and risk analysis is almost non-existent.

In Argentina, systematic and transparent mechanisms of controls of the growing SOE sector were practically non-existent during the Kirschner governments. The new government of President Macri has created a high-level inter-ministerial Committee for Strategic Oversight of the SOEs, supported by a staff unit attached to the President's Chief of Staff, to strengthen monitoring of SOEs and spearhead extensive governance reforms of the sector, with the support of the OECD.

Brazil maintains a multiple-principals (Finance, Planning and the relevant sectoral ministries) model of governance for its SOEs, with different reporting regimes, depending on the nature of the information provided. The Secretaria das Empresas Estatais in the Planning Ministry is charged with consolidating some of this information for the preparation of quarterly and annual reports on the performance of the SOE sector.

In Mexico, government monitoring of the SOEs is largely focused on the two major enterprises (the oil company PEMEX and the electricity company CFE). The Ministry of Finance has very limited human resources devoted to the monitoring and control of the other SOEs.

b) Quality and transparency of public information on SOEs' performance

The quality and transparency of published information on the operational and financial performances of SOEs are crucial to allow adequate scrutiny of such performances by stakeholders other than the government, namely minority shareholders, financial market operators, consumers of the SOEs products, private enterprises operating in the same sectors, and the taxpayers at large. Such published information is often fraught with weaknesses:

- Non-compliance with international standards for corporate accounts
- Limited degree of detail
- Low or irregular frequency of publication

6 There is, however, significant debate regarding the appropriateness of requiring investments by SOEs to go through the procedures applicable to investment by government entities, the so-called *Sistemas Nacionales de Inversion Publica (SNIP)*, which are often quite lengthy and formalistic.

- Lack of qualified external audit
- Lack of standardized, timely and reliable indicators of operational performance, namely indicators of quality of the enterprises' outputs, coverage of their services, consumer satisfaction, as well as of efficiency of operations

In general, the quality and availability of information on SOEs' financial performance tends to be significantly better than that on their operational performance. This is clearly the case in Latin America. Most of the countries surveyed for this study (a notable exception being Argentina, where efforts are, however, now under way to remedy the situation) publish summary financial data on individual SOE's performance at regular, at least quarterly, frequency, and more comprehensive audited income statements and financial balance sheets annually. Most also compile and publish aggregate financial statistics for the SOE sector.

However, the commentaries on the SOEs' financial performance are often analytically rather weak, and not forward-looking. Typically, they provide only limited explanations for over- or under-performance of the enterprises, compared to initial forecasts, as well as compared to private domestic or foreign enterprises operating in the same sectors. They also rarely draw lessons for the future. Although progress has been made in countries such as Brazil and Peru in developing indicators of operational effectiveness and efficiency of SOEs (for example, indicators of services' coverage and continuity; and of key inputs per unit of output) there is clearly scope for improvement in their coverage, quality, and timeliness.

III. Mitigating and Managing Fiscal Risks from SOEs

Against the background of the discussion of the various sources of fiscal risks from SOEs in the preceding section, this section focuses on possible approaches to mitigating and managing those risks. The relevance of such approaches to individual countries depends on the significance of the different sources of risk, and more generally on the institutional and socio-political context, in each country. Accordingly, appropriate country-specific strategies would involve different mixes of preventive or corrective actions.

1. Reducing risks from quasi-fiscal activities

Clearly, the most effective approach to mitigating fiscal risks arising from the imposition of uncompensated quasi-fiscal burdens on SOEs is for governments to avoid policies that can give rise to such burdens, or eliminating them, when they are already in place. Depending on the type of quasi-fiscal activities in individual countries, specific actions that could be taken include the following:

- Liberalizing the prices of goods and services provided by SOEs in competitive markets; or setting regulated prices in monopolistic or oligopolistic markets at levels that would allow efficient enterprises to earn an adequate rate of profit. Undesired distributional effects of such reforms should ideally be dealt with through the provision of vouchers or income transfers to affected vulnerable groups⁷
- Subjecting SOEs to the same laws and regulations regarding employment and labor costs as private competitors
- Eliminating any local content requirement for SOEs' investments and procurement; and streamlining other procedural requirements for the same. In particular, since, as mentioned in the previous section, subjecting SOEs' investments to the same lengthy and often cumbersome review, approval, and monitoring systems as government investments can put SOEs at disadvantage vis-a-vis private competitors, it may be preferable to set up separate, more streamlined procedures for them, but ensuring that they continue to be subject to the filter of sound cost-benefit analyses
- Limiting the scope for interventions in the day-to-day operations of SOEs motivated by political or individual gains, through reforms in the corporate governance of the enterprises that provide to their Boards and managers adequate operational autonomy with accountability and transparency.

It must be recognized, however, that there are frequently significant political economy and other obstacles to the elimination of quasi-fiscal burdens on SOEs. Specifically, full-cost pricing of socially sensitive goods and services is often politically unfeasible, especially when weaknesses in administrative capacities do not allow effective identification and compensation of vulnerable households. Also, SOEs may be the most effective vehicle to invest in social infrastructures (e.g., in energy, or water and sanitation) in remote rural areas.

When, for these or other reasons, governments choose to introduce or maintain policies that place quasi-fiscal burdens on SOEs, they should provide to the enterprises as clear guidelines as possible on how to measure such burdens, and ensure their commensurate and timely compensation through regular and transparent budgetary transfers.

The measurement of quasi-fiscal costs can be a complex exercise, as it requires a difficult-to-implement notional separation of commercial and non-commercial activities of individual SOEs that may use indivisible inputs (e.g., some capital investments) and enjoy economies of scale from the simultaneous conduct of the two types of activities. As could be expected, SOEs have incentives to overstate the costs of non-commercial activities, by attributing to them a disproportion-

⁷ See IMF (2013) for a comprehensive discussion of energy subsidies reforms.

ate component of the inputs, and by understating the gains from the economies of scale. Governments have the opposite incentives, but should strive to ensure as close an approximation to the measure of the costs as the available information permits. The pros and cons of alternative methods of calculating quasi-fiscal costs are discussed in the OECD's Accountability and Transparency Guide for State Ownership (OECD 2010, Box 1.10).

European countries have made significant progress in costing quasi-fiscal burdens, partly under pressure by the EC, concerned with avoiding both unjustifiable state aids to national SOEs and fiscal risks from the same. In those EU countries (e.g., France and Italy) that use public service agreements (PSA) with their SOEs, non-commercial objectives mandated to each enterprise are identified, their cost is estimated for the period covered by the agreement, and the related expected budgetary compensation is specified.

In Latin America, there is still substantial scope for progress in this area. As mentioned in Sect. II above, Chile sets out transparent criteria for estimating the budgetary subsidies to states that the government should financially compensate the enterprises if they are forced to deviate from their mission, as specified in the original law under which they were created. However, the law does not provide specific guidance on how to implement such principle in practice. Brazil also recently reduced substantially domestic procurement requirements for its SOEs.

In Mexico, recent energy reforms have vastly reduced the scope of quasi-fiscal operations in PEMEX and CFE. Many of the other commercial SOEs receive significant transfers from the federal budget, but the amount of the latter is decided through negotiations, rather than on the basis of a transparent costing of the quasi-fiscal burdens imposed on these enterprises. Most other Latin American countries as well do not set out specific guidelines to identify, quantify, and compensate quasi-fiscal burdens on their SOEs.

2. Avoiding excessive and discretionary resource extraction from SOEs

To minimize the risks from an excessive extraction of resources from their SOEs, often dictated by short term budgetary pressures, and ensure a level playing field for the SOEs vis-à-vis domestic or external competitors, governments should:

- subject SOEs to the same tax regime as other enterprises operating in the same sector. Similar considerations should apply to royalties, or other resource-

- sharing arrangements for SOEs in the oil, gas or mineral resource sectors;⁸ and
- provide clear forward-looking guidance to SOEs as regards expected rates of return and the distribution of profits as between dividends and reinvestment in the firm. A preannounced dividend payout policy may take the form of a fixed percentage of annual profits, or of a transparent link of the payout requirement to the achievement of a desired capital structure for each SOE (see Box 1 above). This latter approach, albeit more complex, is preferable because, while reducing discretion and the related risks of undercapitalizing SOEs, it retains a degree of flexibility to adjust dividend payout requirements to changing investment needs and financial market conditions.

3. Reducing fiscal risks from SOE's borrowing

Like private companies, SOEs need access to financing, both for short-term liquidity purposes and for investments. Fiscal rules requiring SOEs to consistently run balanced overall budgets put them at a competitive disadvantage vis-a-vis private firms in the same sector, and can lead to serious underinvestment in key public services. They may also run counter to intergenerational equity considerations, since the benefits of SOEs' investments frequently are enjoyed by more than one generation, which should accordingly contribute to paying for them through the purchase of goods and services whose prices incorporate the cost of servicing the debt incurred to finance the investment.

However, to minimize fiscal risks, it is essential that the SOEs' access to financing be contained within limits consistent with their debt servicing capacity, in both the short and the longer term. For this purpose, governments should both eliminate preferential channels or terms of access of SOEs to financing, and introduce transparent, non-discretionary, and effective systems of control of SOEs' borrowing, primarily focused on solvency and liquidity criteria.

The granting of explicit guarantees to SOEs should be avoided, or at least strictly limited to the financing of investment projects of clear public interest. It should be subject to an aggregate ceiling for the sector, defined by the Ministry of Finance (MoF) and approved by Parliament in the context of the budget process. Within that ceiling, guarantees to individual SOEs should only be granted on the basis of

8 As discussed in detail in Daniel, Keen and McPherson, 2010, the taxation (broadly defined to include royalties, production sharing arrangements, and other compulsory unrequited payments to the government) of non-renewable natural resources (NNR) is a very complex subject, which requires balancing a number of different objectives, as well as giving due consideration to the special features of the NNR exploitation activities, including long gestation periods, high sunk costs etc. What is emphasized here is the desirability of leveling the playing field between SOEs operating in these sectors and their private (domestic or foreign) competitors in the design of their taxation regime.

a transparent analysis by the MoF of the SOE's capacity to service the debt (see below); they should be adequately collateralized by the SOE's liquid assets or expected revenues; and should be accompanied by significant fees, comparable to those levied on any guarantees granted to private enterprises (as is done in Australia). Governments should also eschew any other policies (such as different prudential requirements for domestic banks' credit to SOEs and to private firms; pressures on public banks to give preference to non-financial SOEs in lending; or a preferential tax treatment for bonds issued by SOEs) that may provide SOEs a competitive advantage in access to financing.

Minimizing discretion in the granting of borrowing authorizations by the government (specifically the MoF) to the SOEs is key to the design of an effective system of controls on SOEs' access to financing. Borrowing controls should be based on clear and pre-specified objective criteria that take into account the factors determining the SOEs' capacity to service their debt over time. These factors include: the size and structure of individual SOEs' liabilities; their interest burden and profile of debt repayments; their operational profitability; the level of their contingent and known future liabilities (e.g., from pension plans for their employees); the size and degree of liquidity of their assets; and the volatility of their revenues.

Finally, the assessment of an SOE's capacity to take on new debt should take into account not only the starting position in all the above-mentioned dimensions, but also how the proposed new financing could be expected to affect those dimensions. This assessment is likely to be affected over time by unexpected developments in financial market conditions, or in exogenous factors impacting the SOE's operational results, such as developments in demand or costs.

These considerations highlight a trade-off between systems of control that would involve the approval (by the MoF, and possibly also by the Congress, in the context of the budget process) of SOEs' annual borrowing plans, and systems of control requiring the MoF's authorization for individual borrowing operations. The first approach would provide more certainty and autonomy to SOEs' Boards and managers, while the latter would reduce risks from the government's perspective. The choice between the two approaches in individual countries should be guided by the quality of the governance of the SOEs, the state of their financial management capacity, and their degree of exposure to unforeseeable exogenous shocks.

Whatever the chosen periodicity of the borrowing controls, governments should design and disseminate a reasonably stable framework to authorize SOEs' access to financing, based on a transparent assessment of the SOEs' capacity to borrow. This framework should specify the indicators used, and their value ranges considered compatible with the proposed borrowing, as well as the responsibility and procedures for the assessment.

At a minimum, the indicators should include the ratios of the SOEs': gross liabilities to current revenues; debt denominated in foreign currency to foreign exchange

earnings; interest due to current revenues; and liquid assets to short-term liabilities. The inclusion of other relevant indicators, such as the ratio of contingent or known future liabilities to revenues, and that of current operational expenditures to current revenues would also be desirable. The indicators should be standardized, and possibly weighted to arrive at an overall judgment for the approval. An alternative approach would be to rate the individual SOEs in each dimension, and set a threshold for each rating. This would avoid the need to weight them. An illustrative simplified example is set out in the table below.

TABLE 1. Illustrative Ratings by Range of Indicators

Indicators	Value ranges	Ratings
Indebtedness		
Gross Debt (D)/ Current Revenues (CR)	D/CR less than x	A
	D/CR between x and y	B
	D/CR above y	C
Interest burden		
Interest due (I)/ Current Revenues (CR)	I/CR less than z	A
	I/CR between z and q	B
	I/CR above q	C
Liquidity		
Short term liabilities (SL)/ Liquid assets (LA)	SL/LA less than 1	A
	SL/LA above 1	C
Foreign exchange exposure		
Debt denominated in foreign currency (FXD) / Foreign exchange earnings (FXE)	FXD/FXE less than p	A
	FXD/FXE above p	C
Contingent liabilities		
Contingent liabilities (CL)/ Current Revenues (CR)	CL/CR less than xx	A
	CL/CR between xx and yy	B
	CL/CR above yy	C
Operational profitability		
Current Revenues (CR)/ Operational Expenditures (OE)	CR/OE above 1	A
	CR/OE less than 1	C

The framework could stipulate that, to be allowed to proceed with the proposed borrowing, SOEs should score at least B in each dimension. The values of the ranges should be set at prudent levels, taking into account relevant factors, such as the vulnerability of the SOEs to exogenous macroeconomic and other shocks (discussed further in the next subsection). This may argue for differentiating the ranges by sector, to allow for the likely diversity of SOEs in this respect.

Responsibility for the assessment of the SOEs' borrowing capacity under the framework should be attributed to the MoF. To be effective, the borrowing controls should be firmly and uniformly enforced (although their enacting legislation may include some limited escape clauses for unforeseeable exogenous shocks, such as natural disasters). This requires:

- Setting in place in the MoF systems of timely monitoring of the SOEs' finances, and of changing financial market conditions (see next subsection for details);

- Enacting financial and personal sanctions on the enterprises and their Boards and management, graduated according to the severity of non-compliance, for failure to observe the borrowing limits (including through the accumulation of debt to suppliers) or to accurately report the information specified in the framework.

4. Strengthening SOEs' financial management

Sound financial management systems are key to good operational and financial performances of SOEs, and therefore to reducing the fiscal risks posed by these enterprises. Accordingly, shareholder governments should take proactive steps to ensure that such systems are in place in their SOEs. This is the case regardless of the specific models of corporate governance and control chosen for the enterprises. Governments should provide clear guidance to their SOEs on all aspects of financial management, namely the preparation of multi-annual business plans and annual budgets; the monitoring of execution of both; their revisions, if needed; accounting; reporting; internal and external audit; and asset-liability management. They should also monitor and enforce SOE's compliance with such guidance. Responsibility for these tasks in most countries resides with the MoF (in a few, the Ministry of Planning, or of State Participations). In some countries, which organize their SOEs under a holding (such as FONAFE in Peru, Temasek in Singapore, SEPI in Spain) or other similar institution (such as SEP in Chile), many of the functions are exercised by the holding, but in close consultation with the MoF.

As indicated in Section II, the degree of specificity and detail of the guidance may vary, depending on countries' preferences regarding the degree of autonomy of Boards and management in the governance and operation of SOEs, including under quasi-contractual arrangements, such as public service agreements with the government. Nevertheless, some broadly applicable points should be stressed here. In terms of budgeting, the following should be considered:

- SOEs' annual budgets should be prepared, and presented for review and approval by the oversight authority, in a standardized format, consistent with applicable accounting standards (preferably international corporate standards). They should contain sufficient detail (including explanatory narrative) to allow an analysis by the oversight authority of their consistency with the SOEs' rolling strategic business plans and with public service agreements, when applicable.
- The budgets should include detailed projections of revenues, operational expenditures, interest costs and other financial charges, proposed investments, and the size and composition of required financing (or financial assets accumulation).
- The budget documentation should specify the underlying assumptions regarding relevant macro-economic variables (e.g., commodity prices, exchange rate, and interest rates) and idiosyncratic factors (e.g., evolution of the demand for the SOE's products; relevant regulated tariffs; the size and composition of its

workforce; and specific cost determinants, such as wage increases, or the prices of other key inputs).

- These assumptions should be subjected to sensitivity analyses and combined stress tests,⁹ and the results should be reported in the budget documentation, along with any proposed actions to mitigate risks exceeding prudent thresholds (through e.g., hedging or insurance mechanisms). Box 2 below provides as an illustration the results of some sensitivity analyses conducted for key SOEs in Peru. Given the current lack of such analyses in most SOEs in Latin America, strengthening their capacities in this area represents a substantial challenge, which should be given appropriate priority by SOEs' oversight authorities throughout the region.
- The budgets should also include a listing of the SOEs' explicit contingent liabilities, their maximum values, an assessment of the probability of their realization, and a contingency reserve to match the combined expected value of the liabilities.

In terms of monitoring, reporting, accounting, and controls, the following should be considered:

- SOEs should be required to have in place effective systems to monitor, preferably in real time, the execution of their budgets, and to transmit to the oversight authority summary monthly reports, and more detailed quarterly ones. These reports should be also compiled in a standardized format, consistent with that of the SOEs' budgets. They should be transmitted electronically to an information system of the oversight authority that would allow comparisons of SOEs' performances and their consolidation into aggregate statistics, to facilitate a comprehensive assessment of the impact of the SOE sector on the public finances.
- The oversight authority should be endowed with adequate human resources and information systems to enable it to effectively monitor and enforce the SOEs' compliance with the budgeting and reporting requirements; to analyze such budgets and reports, and provide timely feedbacks on them to the SOEs; and to request and enforce appropriate corrective actions by the SOEs, when necessary.
- SOEs' financial accounts are typically compiled following the national or international standards applying to private corporations. This is appropriate, to facilitate comparisons with private competitors or peers, and to meet regulatory accounting requirements for SOEs listed on domestic or foreign stock exchanges. However, to facilitate a comprehensive view of a country's public sector finances, SOEs' accounts should also be compiled in a public accounting format, following

9 Stress tests to assess the combined impact of several different shocks are recommendable, because of the frequent correlation of these shocks. For instance, downturns in demand may be accompanied by pressures on foreign exchange rates; wage pressures may also lead to currency depreciations, as can political disturbances or large natural disasters.

international standards such as the IMF's Government Finance Statistics Manual, so as to allow their consolidation with those of the general government.

- A consolidation of government and SOEs' accounts is certainly desirable for analytical and statistical purposes. It should be noted, however, that this does not imply that fiscal targets or fiscal rules should be specified in terms of the consolidated public sector (or its non-financial component, as is more frequently the case). Indeed, it may be argued that separate and different rules are preferable for the general government and the SOEs, since the government's fiscal stance should be informed by macro-economic stabilization, as well as fiscal sustainability, objectives, while the financial performance and borrowing capacity of SOEs should be assessed mainly in terms of profitability, liquidity, and longer-term solvency, as discussed above.
- SOEs should have in place adequate systems of internal control, including an Audit Committee within their boards and a dedicated unit/department within the staff, with appropriate professional qualification and experience. SOEs' annual income statements and balance sheets should be subjected to external audits by qualified domestic or international firms.

Finally, governments should provide broad guidance to SOEs on the management of their assets and liabilities, in particular as regards liquidity and risk preferences. They should also endeavor to strengthen the asset and liability management (ALM) capacity of their SOEs. This involves first and foremost ensuring that the requisite skills are present in the boards and the senior management of the enterprises. Also, while some aspects of ALM can be outsourced to specialized financial institutions, SOEs should have a core of in-house financial expertise at the middle management and staff levels. Adequate space should be made in the SOEs' budget to acquire, retain, and further develop through training, the in-house financial management skills. Information systems may also need to be upgraded to adequately support an active ALM.

Box 2: An Illustrative Sensitivity Analysis of the Impact of Macro-Economic Shocks on Selected SOEs in Peru

This Box summarizes the results of an analysis of the sensitivity of revenues and expenditures of main SOEs to macroeconomic shocks in Peru. It was prepared for one of the background case studies for this book. The details of the econometric estimates are presented in annex to that case study.

The study estimated first the elasticity of revenues of the main Peruvian SOEs to changes in aggregate domestic demand, or GDP. It found significant

differences among the enterprises, with estimated elasticities being largest for the financial SOEs and for the water and sanitation enterprise SEDAPAL (both significantly larger than 1), and smaller (significantly below 1) for the electric and transport ones.

The demand elasticity for the oil company PETROPERU was estimated to be close to 1. Some of the enterprises, whose business is more linked to external trade, such as the port and airport ones, were found to be vulnerable to cyclical downturns in foreign demand.

The study also analyzed the impact of changes in international commodity prices and exchange rates on Peruvian SOEs. As could be expected, changes in international oil and gas prices were found to affect different SOEs in different ways. An increase in those prices would boost the cost of SOEs in the electricity generation and distribution. The profitability of these SOEs would be adversely affected to the extent that the increases were not promptly reflected in the tariffs paid by industrial and residential consumers. The econometric estimates conducted suggest that the elasticities of operational expenditures of electricity companies to changes in the international price of the WTI and in the exchange rate are less than 1, reflecting the only partial dependence of these companies on thermal generation.

Changes in international oil prices and in the exchange rate could be expected to have a stronger impact on operational expenditures of PETROPERU, given the nature of its business, a fact that was borne out by the econometric estimates conducted. For SEDAPAL, the main risk was found to be increases in construction costs.

The effects of changes in interest rates and exchange rates on the financial expenditures of different SOEs depend mainly on the level and composition of their balance sheets. The largest debtors among SOEs in Peru are three financial enterprises (COFIDE, Fondo Mi Vivienda, and Agrobanco), SEDAPAL, and in recent years PETROPERU. The bulk of their indebtedness is in US dollars; less than one quarter of their debt is in domestic currency. Therefore, changes in exchange rates could be expected to have a substantial impact on these enterprises' profitability, unless adequately hedged. This is supported by the econometric estimates conducted.

The impact of changes in interest rates on the SOEs' finances would depend on various factors: differential developments in interest rates, e.g., as between domestic and external, and active or passive; whether individual SOEs are net debtors or net financial assets holders; and how much of their debt is at floating rates, a fact on which there is no easily available published information. The econometric estimates suggest that the electricity companies and SEDAPAL are relatively more vulnerable than other SOEs to increases in domestic interest rates.

5. Improving the transparency of SOEs' operations

As highlighted in Section II, public disclosure and dissemination of comprehensive and timely information on the SOEs' operational and financial performances is an essential ingredient of good governance, as it allows the scrutiny of such performances by stakeholders other than the government, thereby enhancing the SOEs' accountability, and reducing risks of their collusion with politicians, or of outright corruption. Publicly available information on SOEs' financial performance is relatively good in a number of countries in Latin America, both in terms of coverage and timeliness. Some of the lagging ones are making progress in this respect.

Further reform efforts to strengthen transparency should focus mainly on:

- Greater disclosure of contingent and future liabilities of SOEs, and of the results of sensitivity and risk analyses
- The development and regular publication of improved indicators of operational performance of SOEs, including the quality of goods and services provided, cost-efficiency, and customer satisfaction; and
- A fuller and user-friendly narrative on SOEs' performances in quarterly, and especially annual, reports by the enterprises and their oversight authorities.

IV. Conclusions

This section argues that a fundamental requirement for a sound and effective governance of SOEs is "leveling the playing field" between them and private firms. This is not to imply that SOEs should not be given public policy objectives, but that these should be clearly identified, and the SOEs should be compensated through transparent, and as much as possible commensurate, budgetary transfers for the costs they incur because of those objectives. Such an approach is needed to allow SOEs to operate efficiently, and to hold them accountable for doing so. The section discusses various types of public policies (quasi-fiscal policies) that impose non-commercial burdens on SOEs, and how to eliminate, reduce, or compensate them.

The section also discusses the need to avoid an excessive appropriation of SOEs' results by their governments. Tax or royalty burdens above those levied on private competitors, or dividend payout policies dictated by short-term government budgetary objectives can result in de-capitalization of the SOEs, excess leverage and/or serious underinvestment in essential infrastructures.

Both uncompensated quasi-fiscal burdens and excessive resource extraction can weaken the budget constraint on SOEs, as they can lead to understandable expectations by the enterprises that the government would bail them out in the event of financial difficulties. But, a soft budget constraint can also arise from po-

licies that place SOEs in a privileged position vis-à-vis their private competitors or peers. These policies can take the form of budgetary transfers that exceed the quasi-fiscal burdens mentioned above, privileged channels of access of SOEs to financing, and explicit or implicit guarantees of such financing by the government.

The section argues that, while governments can and should endeavor to eliminate most preferential treatments of SOEs, they are likely to find it difficult to prevent a perception by financial market agents that SOEs (especially those that provide essential public services or are large employers) enjoy an implicit government guarantee. This argues for government controls over SOEs' borrowing. Such controls not only level the playing field as regards access to finance by private and state-owned firms; they are also important to limit the risks that excessive borrowing by SOEs can place on the public finances over the medium term.

Borrowing control systems should not be based on government discretion, which may be influenced by short-term political objectives, but rather on clear, objective and preannounced criteria, related to the SOEs' capacity to service the additional debt. The section has made a number of specific suggestions in this respect. In particular, it recommends that decisions by the MoF to authorize SOEs' borrowing be based on a clear and well publicized framework to rate the SOEs according to indicators of their: debt stock relative to current revenues, debt service, foreign exchange exposure, liquidity, contingent liabilities, and profitability. Only SOEs obtaining minimum ratings in all these dimensions should be allowed to borrow.

Like for fiscal rules, the effectiveness of controls on SOEs' borrowing depends very much on the state of the enterprises' financial management systems, and on the capacity of their oversight authority (preferably the MoF) within the government to monitor developments in their finances on a timely basis, and to enforce remedial actions in the event of unexpected adverse shocks.

The paper makes a number of specific suggestions to strengthen SOEs' financial management.

Finally, the section argues that, by involving a range of stakeholders other than the government in the scrutiny of SOE's activities, comprehensive and timely public disclosure of information on their operational and financial performances can play an important role in reducing fiscal risks from SOEs and in promoting their cost-effectiveness.

Based on the results of the background studies mentioned in Section I, the section has illustrated a number of the considerations above through examples of sources of fiscal risks from SOEs in Latin American countries. As the summary table in Annex I suggests, all countries in the region need to strengthen various aspects of the fiscal governance of their SOEs.

The main sources of fiscal risks in the region appear to be some types of uncompensated quasi-fiscal operations; the largely discretionary and sometimes

excessive extraction of resources from SOEs by governments; the fact that the criteria for borrowing authorization are frequently not transparently spelled out and applied; and the lack of comprehensive risk analysis in SOEs' budgets.

Some countries, in particular Chile and Peru, have made greater progress than the others in improving the fiscal governance of their SOEs. It is encouraging that some of the major countries (Argentina, Brazil, and Mexico), which were lagging behind the average in the last decade, have recently enacted important reforms in this area, or are in the process of doing so.

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