

South Asia Development Matters

OVERVIEW

# Hidden Debt

Solutions to Avert the Next  
Financial Crisis in South Asia



WORLD BANK GROUP

Martin Melecky



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# Executive Summary

***The COVID-19 (coronavirus) crisis has expanded public direct interventions through state banks and enterprises to aid economies, but with possible risks to debt sustainability, long-term productivity, and equality.***

The ongoing COVID-19 crisis, which has sent economies in South Asia and other parts of the world into a deep recession, has created the need for public relief efforts. It has also raised South Asia's debt levels and future contingent liabilities. This once-in-a-century shock and the subsequent vast deployment of public resources have come on the back of the debt wave that has formed over the past decade. Large amounts of debt obligations are likely to resurface for central governments as many troubled state-owned enterprises (SOEs) and state-owned commercial banks (SOCBs) will call for support through bailouts. Prematurely terminated public-private partnerships (PPPs) may require large public payments as settlements.

Increased leveraging of SOEs, SOCBs, and PPP interventions during the COVID-19 crisis must be safeguarded against possible exploitation by elites for their own benefit and must minimize misallocations of resources in the economy that could reduce productivity in the medium to long term. On balance, PPPs have yielded more successes

than problems compared with SOCBs and SOEs. Some PPPs in South Asia have been highly successful in terms of both public benefits and private returns.

***Compared with other regions, South Asia is more exposed to the risk of hidden debt and mounting contingent liabilities from SOEs, SOCBs, and PPPs because of its greater reliance on state off-balance sheet operations.***

South Asia has the largest share of SOCBs in terms of banks' total assets across developing country regions, has the highest use of SOEs together with East Asia and Pacific,<sup>1</sup> and is among the top three regions in the use of PPPs in infrastructure (along with Eastern and Central Europe and Sub-Saharan Africa). For instance, the SOE sector in both India and Pakistan is more than twice as large as the international benchmark, controlling for size of the economy. Overall, India and Pakistan are among the biggest users of public agents such as SOEs, SOCBs, and PPPs. Other South Asian countries are prominent users of one or two of the public agents, such as Bhutan's and Sri Lanka's heavy use of SOCBs. Not only do South Asian central governments rely heavily on off-balance sheet operations to aid economic development, but so do subnational governments (SNGs).

*The high degree of reliance on SOEs, SOCBs, and PPPs reflects the intention to help accelerate inclusive economic development through direct state interventions, but the negative repercussions have been largely ignored.*

The strong preference of South Asian governments for direct interventions in the economy and markets comes with a price. The reality is that, on average, the efficiency of South Asian SOEs, SOCBs, and PPPs is well below the international benchmark. South Asian governments thus face a trade-off when they rebuild after the current crisis. They must balance the tension between using SOEs, SOCBs, and PPPs to maximize socially beneficial investments and minimizing the risk of large surprise liabilities due to inefficiencies and mismanagement of risks. South Asia governments must ensure that their off-balance sheet operations and their mutual interconnectedness do not become the source of the next financial crisis in the region. This report studies the trade-off between *tackling* development challenges through direct state presence in the market and *avoiding* unsustainable debt due to economic inefficiencies of off-balance sheet operations.

*Financial distress of public agents is not a rare event in South Asia. Off-balance sheet operations of both national and subnational governments become distressed frequently. SOCBs fare the worst.*

In South Asia and globally, 8 percent of PPPs are canceled early (terminated) before their contracts expire. Railroad, treatment plant, and toll road projects under PPP arrangements appear to be the most vulnerable to distress. SOEs enter distress even more often. For instance, India's central public sector enterprises (CPSEs) are 15 percentage points to 21 percentage points more likely to enter distress than similar private firms. Other South Asian countries may confront even greater distress problems in their SOE sectors—even if those problems are seemingly well hidden because data are not available. Across Bangladesh, Pakistan, and Sri Lanka, almost half of the banks—regardless of

whether private or public—could have been in state of distress between 2009 and 2018.<sup>2</sup> Importantly, the greater the ownership share of government in an SOCB, the higher the probability of bank distress.

Because subnational governments are constrained from borrowing autonomously, they do not experience overall distress. They do, however, experience significant shocks from triggered contingent liabilities: that is, when their own off-balance sheet operations—including subnational SOEs, SOCBs, and PPPs—go bad. Over the past two decades, a contingent liability shock has hit a South Asian subnational government about 10 percent of the time, on average.

*When public agents enter distress, governments face the daunting dilemma between bailout and reduced economic activity. Typically, they resort to bailouts.*

Overall, SOEs and SOCBs enjoy soft budget constraints and central government bailouts after they get into distress. The same holds for subnational governments that experience a financial shock after their own off-balance sheet operations have failed. These soft budget constraints and bailouts could be partly motivated by “guilt” stemming from the government having set unclear mandates for SOCBs and SOEs through ad hoc requests to help with economic stimulus and other political agendas. These unclear mandates hinder financial accountability, hard budget constraints, and fair monitoring of performance.

The public agents and subnational governments on one side of the social contract and the central government on the other have settled in a bad equilibrium—one that the economist would characterize as the tragedy of the commons: that is, a situation when a common pool of fiscal resources is overused for self-interest. More transparent setting of purpose and better design, incentives, and monitoring of SOEs, SOCBs, and PPPs—including a clearer definition of social versus commercial mandates—can help create a better equilibrium.



*The fiscal costs of failing off-balance sheet operations are sizable and can markedly reduce the fiscal space available to South Asian governments.*

This report estimates that a systemic macro-financial crisis could trigger PPP failures that would cost South Asian governments more than 4 percent of revenues—and the fallout from the current COVID-19 crisis could be even more severe. The potential fiscal costs from distressed SOEs have been even more overwhelming. In Pakistan, the total liabilities of chronic loss-makers—defined as SOEs that made a loss in three out of the five past years—have been about 8 percent to 12 percent of GDP in recent years, several times more than the country's public spending on education in FY2019/20.<sup>3</sup> In Sri Lanka, the liabilities of loss-making SOEs have hovered at 4 percent to 5 percent of GDP. Interestingly, in every country studied, just the top 10 loss-making SOEs account for more than 80 percent of the total losses in the SOE sector—suggesting that the problem could be managed. In India, the cumulative recapitalization of SOCBs from FY2016 through FY2020 was equivalent to almost one and a half times the country's planned public spending on health care in FY2021/22.<sup>4</sup> The recapitalization needs are estimated to increase markedly in FY2021/22, including due to repercussions of the COVID-19 crisis.

*Distressed public agents also inflict substantial costs on the real economy and local business. When a subnational government is hit by a contingent liability shock, local investments suffer for several years. Bailouts of SOCBs can help supply credit to the economy in crises, but they also pave the way for an uneven and frail recovery—one that is especially unfair to small and medium enterprises (SMEs).*

In episodes of systemic shocks—such as the global financial crisis and the COVID-19 crisis—many banks experience distress. While private banks deleverage and curtail lending, SOCBs receive capital and debt support from the state to continue (or even increase) lending. This short-term, positive stabilizing

function of SOCBs for the credit cycle, however, comes at the cost of significant credit misallocation—away from successful firms and especially SMEs. It helps unproductive zombie firms linger in the economy in the medium term and stalls needed reallocation of capital (and labor) to enable productive investments.

At the subnational level, local investments in the Indian states fall significantly in the year of a contingent liability shock, continue to decline in the year after, and remain below the trend for three years after the event. Low fiscal capacity and perhaps the greater reliance of local private investments on complementary public investments can drive the adverse impact of contingent liability shocks on total local investments. For these reasons, recklessly leveraged public capital through badly designed off-balance sheet operations of subnational governments is very costly for local economies and communities in South Asia.

*How can the downside risks of leveraging public capital be mitigated and the upside benefits enjoyed? How can overleveraging and uneconomical use of public capital be prevented and thus the threat of a financial crisis minimized? Through purpose, incentives, transparency, and accountability (PITA).*

Four interconnected principles form the basis of the reform agenda to ensure that public capital is leveraged responsibly in South Asia and to minimize the threat of a financial crisis originating from government off-balance sheet operations (and their interconnections):

**P = Purpose.** The purpose of off-balance sheet operations and leveraging of public capital through SOEs, SOCBs, and PPPs must be clearly defined by the central government or subnational government as the establisher, owner, or sponsor. This includes formulating a clear vision or mission, setting time-bound objectives, and defining corresponding key performance indicators (KPIs).

**I = Incentives.** Institutions, rules, and contracts must be structured in a way that creates

proper incentives to perform in line with the defined purpose. The operational costs of SOEs, SOCBs, and PPPs often exceed market costs to fulfill their purpose and may thus require fiscal subsidies. The nature and extent of these operational costs and subsidies must be determined and linked to the government's budgetary and debt management frameworks.

**T = Transparency.** Two types of transparency are needed. *Debt transparency* and relevant data collection are critical to enabling both central and subnational governments to assess the big picture of how SOEs, SOCBs, and PPPs shape the fiscal space and contribute to the overall public debt—including direct obligations and explicit and implicit guarantees.

*Economic transparency* is also required. It should start with publicly disclosing the policy and purpose of SOEs, SOCBs, and PPPs, and enforcing the requirement that each public agent publish its theory of change for fulfilling its objective and purpose.

**A = Accountability.** The electorate, civil society organizations (CSOs), industry associations, media, and financial markets must support reforms to enact the principles of purpose, incentives, and transparency (PIT) so that off-balance sheet operations of governments cannot be used for political self-interest or side deals—or at least make it harder to do so. Once the reforms are implemented, the electorate, CSOs, industry associations, and financial

### **BOX ES.1 Applying the Purpose, Incentives, Transparency, and Accountability (PITA) Recommendations in Fragile and Conflict-Affected Contexts**

Fragility, conflict, and violence (FCV)-afflicted countries and jurisdictions are characterized by weak institutions and thus present challenging contexts for effectively operating, reforming, or privatizing state-owned enterprises (SOEs) and state-owned commercial banks (SOCBs), as well as structuring successful public-private partnerships (PPPs).

In FCV countries such as Afghanistan, persistent security and governance constraints on the effective delivery of central government functions and services can prompt the local private sector or communities to provide these services instead. Further, the state may be unable to provide the institutional underpinnings of markets—such as property rights and contract protections—as well as basic infrastructure and services. State institutions are often captured by political elites to extract rents rather than to serve the public interest because proper accountability mechanisms are missing, among other problems.

At the same time, in response to disrupted social networks and formal structures during periods of

conflict, the informality of the private sector rises. This response and the state's various inabilities can lead to the development of a “gray” economy, in which private sector activity is irregular and largely opportunistic and operates without regulation. In financial markets, beyond local short-term traditional lending markets based on family or kinship, credit is provided at either steep rates or is confined to the individuals and businesses best-connected to officials controlling SOCBs.

Regularly using public funds to bail out or recapitalize inefficient SOEs and SOCBs creates tension because it competes against other and higher priorities by the use of public money. This tension may propel efforts by the state to divest or fully privatize state enterprises, banks, and other assets, as occurred in Bosnia and Herzegovina and Mozambique during past periods of fragility and conflict. This generally positive move is, however, not without risk. For instance, the privatization of SOCBs and the licensing a private banks to recapitalize a failing banking system have sometimes been highly

*(Box continues on next page)*

### **BOX ES.1 Applying the Purpose, Incentives, Transparency, and Accountability (PITA) Recommendations in Fragile and Conflict-Affected Contexts** *(continued)*

nontransparent—especially when initiated during wartime. In the former Yugoslavia, this process resulted in large asset transfers to war criminals. By contrast, with a lag of several years following the cessation of civil war, Mozambique was able to privatize its commercial banks by bringing in foreign partners.

Development agencies are increasingly conscious of the ways that development interventions—including public sector reforms (such as privatization of SOEs and civil service reforms), major infrastructure projects, and community-level decentralization programs—can “do harm” and contribute to tensions in already fraught situations unless they are well attuned to knowledge of local context and political economy.

The four-pronged reform agenda advanced by this report and centering around purpose, incentives, transparency, and accountability (PITA) also pertains to FCV contexts in South Asia when sensitized to the local context and political economy. Sensitizing proposed concrete actions is perhaps even more important in Afghanistan than in other countries of the region. Some of the challenges that set Afghanistan apart involve (1) political systems dominated by patronage that can reduce the effectiveness of transparency measures; (2) weak

rule of law and weakly enforced contracts; (3) binding capacity constraints, including for the governance and management of SOEs, SOCBs, and PPPs; and (4) fragmented and dysfunctional financial markets lacking the capacity to price risk and exert market discipline.

In FCV areas, it is challenging to identify and carefully align the appropriate reform path with the country context. In contexts in which markets are distorted and dysfunctional, reforms should not rely on unrealistic assumptions that exposure to market discipline is possible—even via full or partial privatization. In contexts in which policy makers are not necessarily held accountable by citizens, reforms should reflect a realistic assessment of how and through which channels increased transparency can change incentives. Planned reforms should be informed by analyses of the broader context of the political economy as well as the specific incentives affecting decision makers and how these can be influenced using the available policy levers. International development organizations can play a key role in creating incentives for reform, enabling sustained change leadership, and providing required technical assistance over the medium to long term.

*Source:* World Bank.

markets must remain vigilant and active. These actors need to keep testing the justifications for continuing the off-balance sheet operations—such as the existence of SOEs and SOCBs, as well as the use of PPPs for the right (socially beneficial) purpose and with desirable results.

These PITA principles must be based on realistic assessments of the national and sub-national contexts and available policy levers. With care, they can be applied to a variety of

contexts, including areas affected by fragility and conflict (see box ES.1).

In closing, while the government must lead in reform, it takes a concerted effort by society to ensure that the off-balance sheet operations of government serve the right socioeconomic purpose and responsibly leverage public capital for the sake of more rapid and more equitable development. Falling short of this task, South Asian countries face the threat of possible financial crises soon.

## Notes

1. Regions are as defined by the World Bank. Regional comparisons of SOEs are difficult. This study uses the database of SOEs maintained by the Organisation for Economic Co-operation and Development (OECD) for several regions outside South Asia. Yet in that database, for instance, East Asia and Pacific is represented only by China and Eastern and Central Europe by Poland.
2. That is, their interest coverage ratio (ICR)—a measure used to determine how easily a company can pay interest on its outstanding debt—lingered below 1, on average. A ratio of 1.5 is considered healthy. The ratio is calculated by dividing a company's earnings before interest and taxes (EBIT) by its interest expense during a given period.
3. Pakistan's public expenditure on education as a percentage of GDP is estimated at 2.3 percent for FY2019/20, making it the lowest in the region.
4. Recapitalization of public banks entailed a cumulative capital infusion of Rs 3.16 lakh crore from FY2016 through FY2020. By contrast, the Union Budget 2021–22 proposed a significantly smaller outlay of Rs 2.23 lakh crore toward health and well-being. For FY2020/21, the Indian credit rating agency ICRA estimates that the budgeted capital of Rs 20,000 crore, along with the external equity raised of around Rs 7,500 crore by a few public sector banks, will be sufficient for public banks.

# Overview

The recent COVID-19 (coronavirus) pandemic, a once-in-a-century global shock, has sent economies in South Asia and the rest of the world into a deep recession. It has also cloaked future developments in a deep cloud of uncertainty. Governments have deployed numerous relief measures to buttress the economy and livelihoods. The indirect measures have come through regulatory forbearance, while the direct ones have involved hefty social transfers and financial support programs.

This big shock and deployment of public resources have come on the back of the latest global debt wave. Since 2010, emerging market and developing economies have experienced the largest, fastest, and most broad-based increase in debt in the past 50 years (Kose et al. 2020). Many of the debt increases have been pushed by the activation of contingent liabilities—obligations incurred by governments off their balance sheets that have triggers for payment. Such indirect (hidden) debt has been historically large in South Asia.

At the heart of the rising debt wave and pandemic response have been state-owned commercial banks (SOCBs), state-owned enterprises (SOEs), and public-private partnerships (PPPs) as well as other off-balance

sheet operations by national and subnational governments. They have helped governments address important development challenges and rapidly deliver relief measures. However, because of their inefficiencies, they have been an important way in which public debt has accumulated. Over time, part of the debt generated by off-balance sheet operations is revealed as it hits the central government budget and debt stock, but at a given time, a large part remains hidden under the radar of the existing financial disclosure standards.

Because of the economic importance that hidden debt carries for South Asia and beyond, this report studies the trade-offs between addressing development challenges directly through a state presence in the markets and the risk of accumulating unsustainable debt through the economic inefficiencies of off-balance sheet operations.

This report offers some insights regarding the ongoing COVID-19 crisis. Specifically, the crisis is likely to exacerbate problems many SOCBs, SOEs, and PPPs confronted even before the COVID-19 shock because of their opaque contracts and distorted incentives, operational inefficiencies, and substandard management of risks. As a result, large amounts of debt obligations are likely to

resurface for central governments. PPPs in South Asia and around the world are likely to terminate early as the COVID-19 crisis strains partnerships and project viability; many private partners can exploit force majeure clauses as expected project revenues plunge. SOCBs and SOEs will require injections of liquidity through debt and equity bailouts to sustain their operations. This fiscal cost may be well justified to help SOEs continue to invest and SOCBs continue to lend. However, adverse side effects are likely. For instance, SOCBs' positive countercyclical lending in the short term is likely to trigger capital (and labor) misallocation in the medium term, and in turn, create conditions for inequitable and unproductive recovery. Similar strains are likely to resurface at the level of subnational governments (SNGs) due to triggered contingent liabilities. Central governments will be obliged to come to the rescue with bailout loans and tax transfers. However, this may not be enough to sustain SNG expenditures, including public investments. As SNG expenditures shrink, local investments (both public and private) are likely to contract significantly for several years. On the positive side, by exposing vulnerabilities and the urgency for reform, the COVID-19 crisis can also help policy makers push for change in the key areas that this report highlights.

In general, governments run operations off their balance sheets for two main reasons. The first is to address market failures and help create markets by encouraging (crowding in) the private sector to make investments with positive spillovers that benefit the public. The second is to expand the pool of public finance by turning direct debt obligations into a larger pool of indirect debt obligations that may or may not have to be met, depending on future events (contingent liabilities).<sup>1</sup> Jointly, the two approaches aim to leverage public capital financially and economically to advance development. For financial reasons, governments leverage public capital off their balance sheets to mobilize greater resources from the private sector and foreign savings—extra resources they

typically de-risk through explicit or implicit guarantees. For economic reasons, governments aim to leverage public capital off their balance sheets to maximize the development impact of those resources.

Three prominent agents through which governments leverage public capital in South Asia are SOCBs, SOEs, and, more recently, PPPs. This leveraging of public capital through off-balance sheet operations can happen at the level of both central and subnational governments. As decentralization increases in India and Pakistan, and more recently in Bhutan, Maldives, and Nepal, subnational off-balance sheet operations could grow considerably. For instance, as of 2020, India had three times as many subnational SOEs than it had federal SOEs—and the financial performance of SOEs is much worse at the subnational level.

South Asian countries use direct interventions in the markets through off-balance sheet operations more heavily than the international benchmark. India and Pakistan are among the biggest users of all three public agents considered in this report (SOCBs, SOEs, and PPPs). Other countries stand out in using one or two of the agents, such as Bhutan and Sri Lanka for SOCBs. Figure O.1 shows how the use of SOCBs, SOEs, and PPPs depends on the size of the economy as measured by the real GDP (in logs). It sheds some light on whether governments that develop public policies for bigger markets tend to utilize direct tools more heavily—in addition to utilizing indirect interventions, such as regulations.

The use of SOCBs increases with the size of the economy (figure O.1, panel a). India, Bhutan, Sri Lanka, and, to a lesser extent, Bangladesh are outliers compared with the international average marked by the trend line. Interestingly, there is no significant codependence between how many SOEs governments deploy and the size of the economy (figure O.1, panel b). However, even here India and Pakistan stand out, exceeding the international benchmark (the trend line).

The use of PPPs increases only marginally with the size of the economy (figure O.1, panel c).

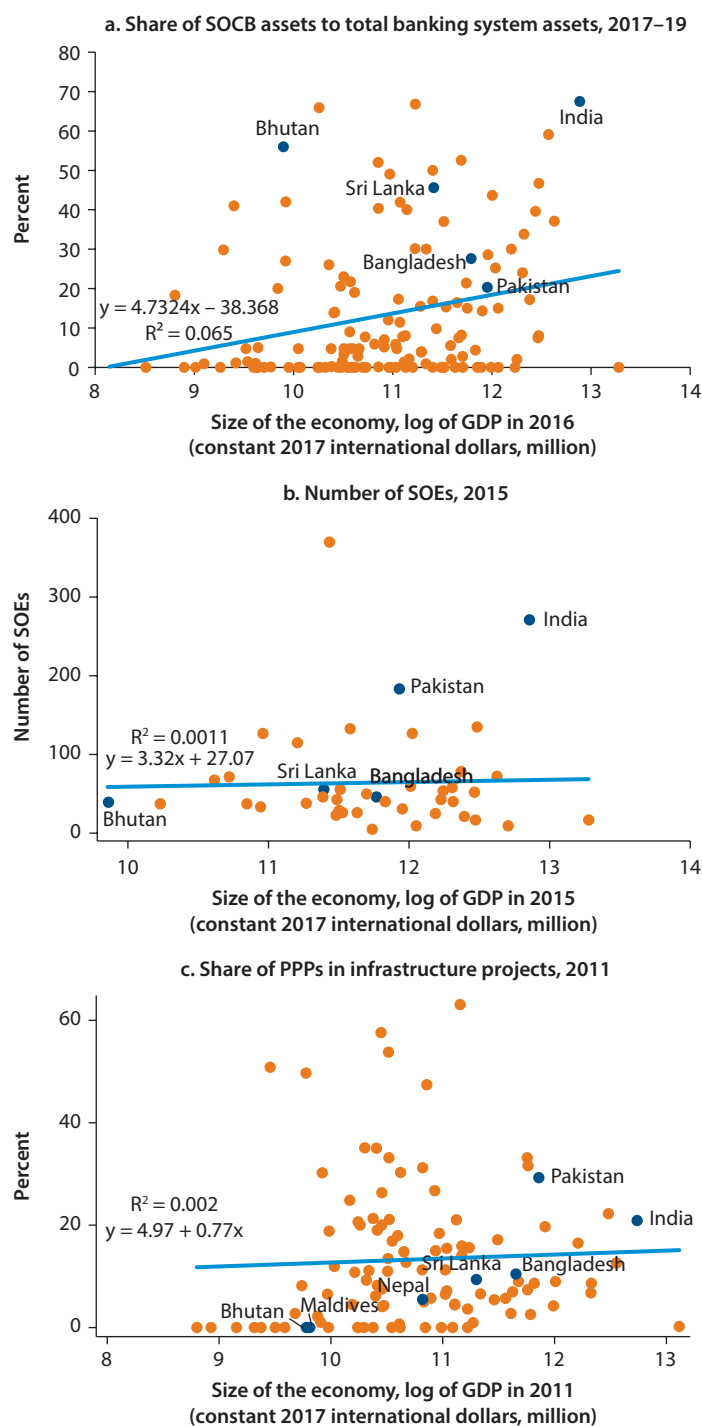


PPPs may have advantages for both smaller and larger economies. De-risking may be needed in small markets. Bigger markets present more opportunities for risk pooling, but also can experience bigger coordination failures that governments may need to resolve—including through de-risking. Pakistan has a large share of PPPs compared with the benchmark, while India has only marginally more. However, given India's—and Bangladesh's—large pipelines of infrastructure PPPs, the two countries can be expected to increase their shares significantly in the near future.

Overall, it seems that South Asian governments have a strong preference for direct intervention in the economy and markets, but it comes with a price. The reality is that the efficiency of South Asian SOCBs, SOEs, and PPPs is well below the international benchmark, on average. Some notable examples of inefficiencies and surprise liabilities include the following:

- In 2013, the Pakistan government cleared the circular debt of energy companies that stemmed from arrears between enterprises in an attempt to clear hidden debt once and for all. The cost was estimated at 1.5 percent of GDP (Bova et al. 2016)—but the problem continues today. In 2014, the Sri Lankan government had to inject about 1.2 percent of GDP (SL Rs 123 billion) from the budget into its strategic SOEs (Government of Sri Lanka 2014). The SOE sector then generated net losses in two out of the next three years.
- Recapitalization of SOCBs has been an ongoing issue over the last two decades in most South Asian countries, including Afghanistan, Bangladesh, India, Nepal, and Sri Lanka. In Bangladesh, for instance, a single branch of Sonali Bank (an SOCB) extended loans valued at about \$454 million based on fraudulent documents. The massive fraud led to a nonperforming loan ratio of 37 percent at the SOCB in 2014. These loans have invariably defaulted and have created a big hole in the bank's capitalization (World Bank 2020b).

**FIGURE 0.1** Some South Asian Governments (India, Pakistan) Use State-Owned Commercial Banks, State-Owned Enterprises, and Public-Private Partnerships More Commonly Than the Global Benchmark While Others (Bangladesh, Sri Lanka) Are Catching Up



Sources: Original figures for this report. Data for panel b are from the Organisation for Economic Co-operation and Development (OECD) and World Bank World Development Indicators. Note: The diagonal lines (trend lines) in each panel indicate the international average at varying levels of real GDP (in logs). In panel b, the number of SOEs for India does not include subnational SOEs. PPPs = public-private partnerships; SOCBs = state-owned commercial banks; SOEs = state-owned enterprises.

- Overoptimistic bidding on PPP contracts has led to many cancellations in the PPP portfolio of the National Highways Authority of India. In turn, these cancellations have increased the level of nonperforming assets in India's banking sector. The State Bank of India, which holds the greatest nominal amount of debt related to Indian highways, reported that about 20 percent of loans to ports and highways were in nonperforming status by the end of 2016, with the trend increasing throughout 2016 (ADB et al. 2018).
- At the subnational level, to resolve the problems of long-running underperformance and overindebtedness at power distribution companies (subnational SOEs), Indian states unexpectedly increased their debt stock by about 5 percent, on average, between FY2015 and FY2018 through the Ujwal DISCOM Assurance Yojana (UDAY) scheme, according to Reserve Bank of India data. In 2017 alone, India's state public sector enterprises—the SOEs owned by subnational governments—lost an amount equal to 0.5 percent of GDP. In FY2018, eight Indian states provided farm loan waivers amounting to 0.32 percent of GDP.

As these experiences highlight, South Asian governments face a trade-off between using PPPs, SOCBs, and SOEs to maximize socially beneficial investments and minimizing the risk of large surprise liabilities due to inefficiencies and mismanagement of risks. Specifically, through PPPs, the governments try to minimize the inefficiency of project execution and leverage public capital, but potentially at the cost of assuming too much risk—and at times allowing for moral hazard on the part of the private sector. Through SOCBs, the government tries to reach the financially underserved and finance the economy even when big shocks hit, but potentially at the cost of mismanagement of risks by SOCBs and misallocation of capital in the economy. Through SOEs, the government addresses market failures related to risky, long-term investments, or

underinvestment in externalities and natural monopolies, but potentially at the cost of exposure to large financial risks and potential surprise liabilities. At the level of SNGs, the trade-off concerns the tension between offering rewards for good performance and providing bailout support in bad times: that is, increasing the fiscal autonomy of SNGs with good fiscal performance to boost the efficiency of local public spending (including through subnational SOEs and PPPs), while limiting bailout support from the central government to exceptional cases and retracting some fiscal autonomy if a subnational government systematically underperforms in normal times.

These and similar tensions have led economists to formulate three complementary views about the character of SOCBs, SOEs, and PPPs and the challenges for managing their performance (World Bank 2020b):

- **Social view.** Public agents (SOCBs, SOEs, and PPPs) are created by government to address market failures and improve social welfare, mixing profitability goals with social objectives. These mixed objectives create challenges for monitoring outcomes and performance.
- **Agency view.** Because of the inability to monitor public agencies, an agency problem emerges involving a discrepancy between the objectives of managers (the agents) and owners (the principals). While governments (principals) may seek to maximize social welfare, their agents (and private partners) may lack the incentive to maximize the use of resources toward this end.
- **Political economy view.** Social objectives might be corrupted by politicians who pursue their personal interests. That is, in some cases, the public agents can become mechanisms for politicians to pursue their individual goals, often at the cost of economic distortion or inequitable distribution of resources.

These views explain the high operational inefficiencies, reckless risk management,



and problematic governance and political economy issues that can be the leading reasons behind the financial underperformance of public agents (SOCBs, SOEs, and PPPs). The problems can occur at the level of public agents, but also at the level of the political government (the principal of these agents).

For instance, SOEs are often promised subsidies to run costly government programs—such as advancing access to electricity to underserved populations and small enterprises—that are not received on time. SOCBs are asked to run government programs—such as to advance financial inclusion or lend to underserved and riskier micro, small, and medium enterprises (MSMEs)—but without receiving the subsidy for the expected and unexpected losses that private markets avoid. They are also asked to help stimulate economies during downturns or financially support large PPPs with concentrated risks: that is, take risk that they cannot diversify away. They are often asked to perform these functions in an ad hoc fashion and without prior consideration of costs and risks—for which fiscal transfers (subsidies, extra capitalization) must be arranged and delivered. They are often tasked with the impossible: to cross-subsidize the related losses from the profits on their commercial portfolio and activities.

In so doing, the government (the principal) becomes part of the problem. Governments at the national and subnational levels originate frictions that complicate effective financial management of the public agents (among others) by being unclear about the purpose(s) that the agents should serve and by being inconsistent over time when confronting political and systemic shocks.

As a result of financial underperformance due to various tensions and shocks, South Asia's SOCBs, SOEs, and PPPs face periodic financial distress. At such times, they need to adjust—with more or less help from the government (the owner or sponsor). These adjustments can inflict fiscal and

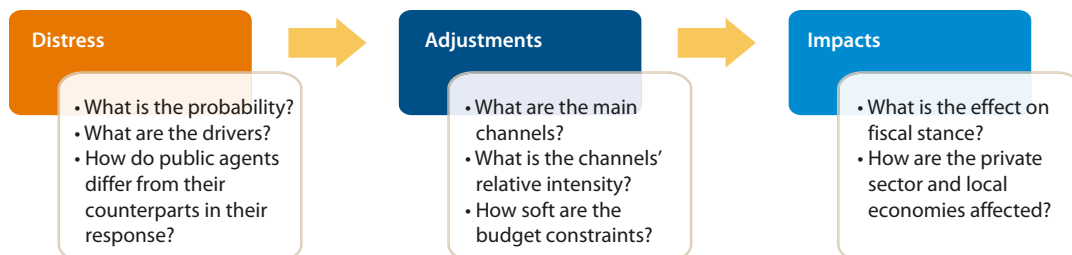
wider economic costs. The latter, through lower economic activity and tax revenues, among others, come back to weaken the government's fiscal stance and increase public indebtedness. To investigate financial distress among public agents, trace the fiscal costs and costs to the real economy of such distress, and better understand the implications for public policy reform, this report has devised an analytical framework.

## Analytical Framework

If governments run off-balance sheet operations through SOCBs, SOEs, and PPPs that financially underperform or are otherwise financially vulnerable, these operations are likely to experience periodic distress. The SOCBs, SOEs, and PPPs will be forced to adjust—including with the help of financial bailouts or by curtailing their activity. In turn, these adjustments will generate adverse impacts on the fiscal stance by triggering contingent liabilities and/or adverse impacts on the real economy by depriving the firms and individuals of some services delivered by SOCBs, SOEs, or PPPs. Figure O.2 traces these pathways through an analytical framework that the report adopts and follows in its analysis.

## Distress

A public agent enters distress when its financial condition has worsened to the point that it cannot perform some of its common functions. For instance, an SOCB in distress cannot lend to its clients at the same amount as before, or an SOE in distress cannot continue investing in new infrastructure to reach underserved population. In empirical analyses, the state of distress can be determined using a threshold for financial ratios computed from accounting data. In situations of adequate financial transparency, this approach is the preferred way of measuring distress—mostly because of its simplicity and equal treatment across similar types of agent, such as SOCBs and SOEs.

**FIGURE 0.2 Analytical Framework: Links from Distress to Adjustments to Impacts**

Source: World Bank.

As an indicator of financial distress for SOCBs and SOEs, this report uses the interest coverage ratio (ICR) along with alternatives that serve as robustness checks. The ICR reveals whether the revenue that the agent generates suffices to cover the interest payments on its debt. When the ICR falls below 1, an SOCB or SOE is considered to be distressed.

Some PPP projects could be hard to compare with SOCBs or SOEs because they can enter distress early in their investment cycle before they start operating, that is, performing their functions. This distress could occur because the public and private partners disagree and engage in a dispute that cannot be resolved; in such instances, the PPP is canceled or terminated before the PPP contract expires. As the measure of distress for PPPs, this report uses early terminations of PPPs. The empirical data to capture PPP distress is retrieved from the Private Participation in Infrastructure (PPI) database of the World Bank.<sup>2</sup>

When financial transparency is impaired and accounting data are unavailable or unreliable, econometric methods can be used to determine the distress events empirically. This report uses such an econometric approach to empirically define distress—such as triggering of major contingent liabilities—for SNGs. Because the financial transparency of SNGs—especially concerning their off-balance sheet operations—is inadequate, the report associates SNG distress with an unexpected increase in SNG debt. Here the expected debt

dynamics are determined by past levels of SNG debt and planned fiscal balances. While indirect, this identification by econometric association has been successful and validated by some publicly recognized distress events, such as the unexpected increase in the debt of Indian states through the UDAY scheme.

With respect to distress, the analyses in the report tackle questions such as the following: What is the *probability of distress* for a given public agent? Which factors can help predict nearing distress? How do public agents differ from their private counterparts?

### Adjustment in Times of Distress

A public agent becomes distressed because its financial situation becomes unsustainable. Something needs to change—and usually several things. These changes concern the public agent's financials and business operations. They must adjust to resolve the unsustainable financial situation and exit distress. The adjustments could be fast—such as instant recapitalization of the distressed SOCB, SOE, or PPP. Or they can be protracted—such as if the resolution depends on the result of an investigation of a committee tasked with deciding on behalf of the public how to proceed and what adjustments to make. Unresolved and protracted distress may require bailouts and/or adjustments that are ultimately more costly and/or severe.

The adjustments in times of distress can occur through various channels. Typically, the

public agent uses a combination of channels rather than a single channel. For instance, even if recapitalization is promised, it may not be instant. The distressed SOCB may need to curtail its lending for some time. The report considers the following five adjustment channels:

1. Request a bailout by injection of public equity or debt financing from the central government.
2. Approach financial markets to raise new private debt or equity, or mobilize additional deposits.
3. Reallocate or forgo planned expenditure—such as postponing investment to cover unexpected expenditures or curtailing lending to meet unexpected needs for liquidity.
4. Sell assets to cover unexpected expenditures.
5. Enter bankruptcy and/or liquidation or cancel the partnership and/or the project.

This list is by no means exhaustive; it focuses on the main adjustments observed in practice. For instance, the first channel could include less transparent forms of bailout, such as bailout purchases from the central government against delivery of services in the future, overinvoicing and underinvoicing of transactions among SOEs, and overpricing of assets purchased by central government entities. Under the second channel, the extreme case could be outright privatization—including through conversion of private debt into private equity and ownership. Under the third channel, the reallocated or foregone expenditures often involve maintenance expenditure that can severely impair the quality of core assets and of service provision by the public agent—generating a second round of distress pressure—or reduced wage expenditures also resulting in firing of employees. Under the fourth channel, the sale of noncore assets could be revitalizing because it can cleanse the public agent from unfit and distracting business lines. By contrast, the sale of core assets could impair the bottom line of the business and service provision by the public agent, including by decreasing its economies of scale and productivity. Under the fifth channel, the

public agent could seek help and time to recover under the bankruptcy protections and/or be liquidated—including if it fulfilled its purpose and there is no rationale for its further existence.

With respect to adjustments, the analyses in the report tackle questions such as the following: What are the main *adjustment channels* that public agents in South Asia use when resolving situations of distress? How intensively are these different channels used? How soft (binding) are the budget constraints that public agents in South Asia face?

## Impacts

The forced adjustment in times of distress inflicts losses on the central government and/or the economy. Hence, the report considers and studies two main impacts of SOCB, SOE, and PPP distress. The first is the direct impact on the fiscal stance (that is, the fiscal deficit or public debt). The second is the impact on the economy (that is, the macroeconomy, industrial activity, and/or local economic activity), which in turn affects the fiscal stance indirectly, for example, through lower tax revenues because of lower economic activity. We consider these two impacts at the levels of both the central and subnational governments.

If the central government or a subnational government decides that the SOCBs, SOEs, or PPPs need to recover from distress with the help of a bailout, its fiscal expenditures or debt will increase and its future fiscal space will shrink. By issuing new public debt, governments may discourage (crowd out) private sector investment by increasing borrowing costs for private borrowers and/or shrinking the limited pool of funding in the economy. For instance, Huang, Pagano, and Panizza (2020) find that in China, increasing local public debt crowded out the investment of private firms by tightening their funding constraints. Importantly, such increases in government expenditure and debt cover only the accumulated losses of the public agent and are not new investments or purchases of any kind. They merely help restore the

functioning of the public agent, restructure it, or liquidate it.

One type of restructuring is full privatization, which turns the public agent into a private entity, essentially ceases its noncommercial social functions (that is, the public production of socially beneficial externalities), and, in principle, releases the central or subnational government from any official exposure to this entity. Here, two observations are warranted. First, even after full privatization, the government may not be completely released from exposure because of perceived reputation risks if the privatized entity gets into distress or otherwise fails soon after privatization. The government may still extend support to privatized firms. Second, while forced adjustment involving liquidation or privatization may impose short-term costs on the economy, it could have positive long-term effects if the public agents had been distorting private markets—such as by crowding out private activity, pursuing undue competitive advantage, or mispricing production inputs or final goods and services.

If the central government decides not to bail out (or only partially bail out) the PPPs, SOCBs, or SOEs in distress—including for reasons of limited fiscal space—the agents must financially adjust by themselves. They can do so in two broad ways: increasing their liabilities by raising equity or debt financing from the private sector; or limiting their activities or asset growth.

The first way can crowd out private financing available for the private sector because investors might prefer to allocate funds to public agents with their (perceived) implicit government guarantee—even if those agents are distressed. The uncompetitive advantage on the better risk-adjusted return can cause the crowding out of private financing even if the central (or subnational) government itself does not issue new debt. Of course, SOEs and other public agents also borrow when they are not distressed—possibly inducing some crowding out as well. However, their borrowing in times of distress can have more adverse effects for two reasons. First, the public agents may be

in distress because of a systemic risk event (such as the global financial crisis or the COVID-19 pandemic) when most private firms in the same tier of creditworthiness are trying to raise funds as well. Second, this crowding-out effect can occur in a segment of financial markets other than government securities markets—a segment in a lower creditworthiness tier to which the distressed SOEs and other public agents rightfully migrate. This segment—involving banks as well as private debt and equity—also serves small and medium enterprises (SMEs), whose access to finance can worsen. Hence, such a crowding-out effect may be even more detrimental for equal access to opportunities.

The second way—by limiting activities or assets—could also be costly for the economy if public agents help create markets (through positive supply side effects, such as spillovers in investment in research and development) or perform socially beneficial functions that help sustain or stimulate the demand side of markets—such as connecting buyers to information and communication technology (ICT) infrastructure and e-commerce or providing credit after disasters. Consider the example of PPPs. If PPPs are terminated early (canceled), not only is the government likely to lose directly because it will have to compensate the private partner, but the project will not be realized or will be realized under full public ownership and operations. When the needed project is not realized, the cost is apparent. However, even if the government decides to finish the project on its own—as the sole financier and overseer—the efficiencies that the private sector could generate by managing the project implementation through PPP will also be lost.<sup>3</sup> For instance, highways will be of lower quality, thereby increasing the maintenance expense, and will be inefficiently operated. Another example of costly adjustment for the economy is curtailed lending by SOCBs. When SOCBs in distress adjust by decreasing their lending, the economy will be deprived of credit and businesses will decrease their activity (investments, production, and purchase of inputs).

Again, the distributional effect can more adversely hit the segments that are riskier to lend to, such as MSMEs.

With respect to impacts, the report examines such questions as the following: What *impact* does the distress experienced by public agents have on the fiscal stance? How are the private sector and local economies affected by the forced adjustment of public agents in times of distress?

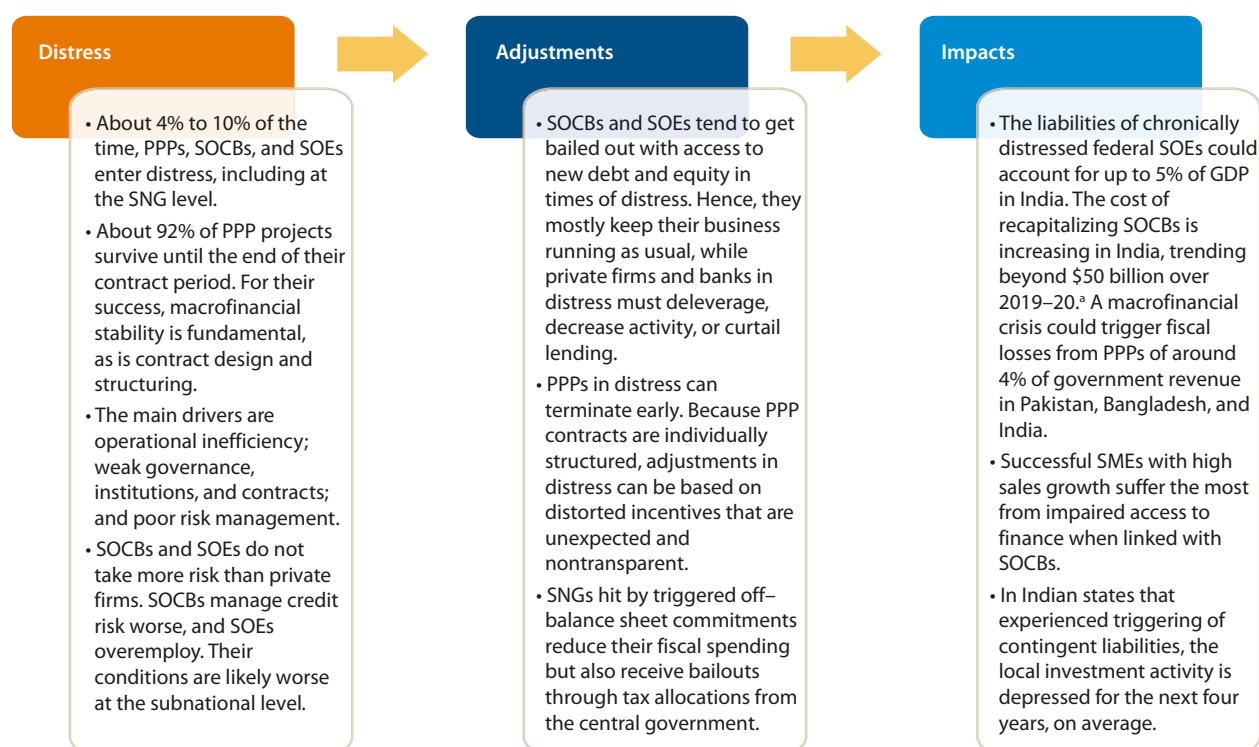
## Empirical Findings

Figure O.2 and the previous discussion frame some key questions addressed by this report. This section highlights some answers to these questions based on the in-depth analyses presented in the report's chapters. Key findings

**In South Asia, off-balance sheet operations by governments are common, but produce mixed results and may cost societies too much.**

are summarized around the topics of distress of public agents (SOCBs, SOEs, PPPs); their adjustment in times of distress; and fiscal and economic impacts. Highlights of the main findings are presented in figure O.3, in line with the report's framework. The respective chapters on SOCBs, SOEs, and PPPs as well as the chapter on the off-balance sheet operations of SNGs provide the full analysis and detail.

**FIGURE O.3** Highlights of the Report's Findings on Distress, Adjustments, and Impacts



Source: World Bank.

Note: The highlights follow the analytical framework for the report presented in figure O.2. PPPs = public-private partnerships; SNGs = subnational governments; SMEs = small and medium enterprises; SOCBs = state-owned commercial banks; SOEs = state-owned enterprises.

a. *The Economic Times*, <https://economictimes.indiatimes.com/news/economy/policy/indian-banks-may-need-20-50-bn-capital-over-next-1-2-years-as-bad-loans-set-to-rise/articleshow/76043255.cms?from=mdr>.

## Distress of Public Agents

Distress is not a rare event in South Asia. The off-balance sheet operations of government examined by this report enter distress frequently. There is an 8 percent likelihood that PPPs in the region and beyond will terminate early—meaning that the partnership will be canceled before its contract expires. In other words, only about 92 percent of PPP projects survive until the end of their contract period. Railroad, treatment plant, and toll road projects under PPP arrangements appear the most vulnerable to distress.

SOEs enter distress more often, especially India's central public sector enterprises (CPSEs), which are majority owned by the federal government. Regression analysis for this report estimates that a CPSE is 15 percentage points to 21 percentage points more likely to enter distress than similar private firms. CPSEs in the manufacturing sector are significantly more vulnerable to distress. Pakistan has an even larger SOE sector than India judging by the sector's total liabilities as a share of GDP. Similarly, based on SOE debt as a share of GDP, Bhutan has a larger SOE sector than India, with Bangladesh and Sri Lanka following not far behind India. However, the lack of data prevents deeper analyses for South Asian countries other than India. Nevertheless, the dearth of data and lower transparency suggest that other South Asian countries may confront even greater distress problems in their SOE sectors than India—even if those problems seem well hidden.

As for banks, our analysis indicates that in Bangladesh, Pakistan, and Sri Lanka, half of the banks—regardless of whether they are private or public—could have been in distress between 2009 and 2018, that is, have an interest coverage ratio (our baseline indicator of distress) lingering below one, on average. The situation appears significantly better in India. While India's SOCBs are likely to be in distress 25 percent of the time, old private banks fare progressively better and new private banks even more so. Overall, SOCBs in South Asia are about 11 percentage points

more likely to experience distress than private banks, on average (controlling for bank characteristics). Moreover, compared with an average SOCB, an SOCB with majority government ownership share (of more than 70 percent) is about 24 percentage points more likely to experience distress than a similar private bank.

Because SNGs are constrained from autonomous borrowing, they do not experience overall distress. But they do experience significant shocks from triggered contingent liabilities—that is, when their own off-balance sheet operations, including subnational PPPs, SOEs, and SOCBs—go bad. A contingent liability shock hits a South Asian SNG about 10 percent of the time (based on results for Indian states). Fiscally weaker states, such as India's special category states,<sup>4</sup> are shocked even more often—about 13 percent of the time.

## Adjustments in Times of Distress: Bailouts versus Reduced Activity

How do SOCBs and SOEs adjust in times of distress compared with private banks and firms? Do they raise new equity and debt to cover unexpected losses? How big is the bailout that the central government provides? How big is the adjustment on the business and investment side of SOCBs and SOEs?

The adjustment of SOCBs in times of distress differs significantly from that of private banks (figure O.4). If private banks get into distress, they reduce lending much more than state banks in distress, which continue lending at the same or marginally higher rate—compared with healthy SOCBs or private banks (compare the long blue negative “lending” bar for distressed private banks with the shorter positive orange bar for distressed SOCBs). When in distress, SOCBs enjoy softer budget constraints and readily obtain state equity and debt support (compare the positive orange “capital” and “debt” bars for distressed SOCBs with the negative blue bars for distressed private banks).

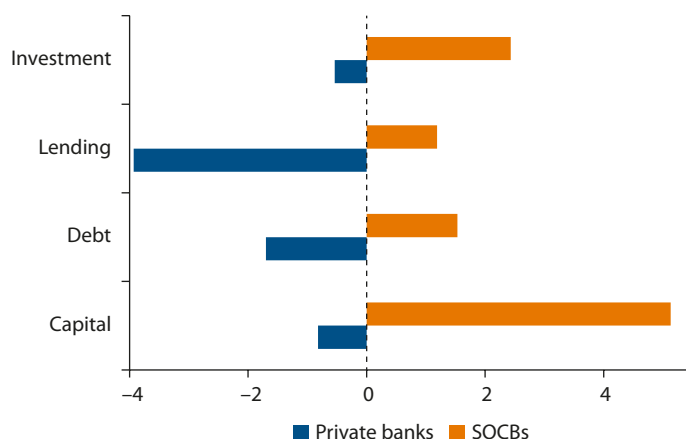


The softer budget constraint, as well as conditions of government recapitalization, enable SOCBs to sustain investments in times of distress. However, the soft budget constraints impose substantial fiscal costs and erode market discipline. The policy question is whether this costly insurance and risk-absorption function of SOCBs pays off in terms of wider economic benefits, such as sustained investment by firms that bank with and borrow from SOCBs.

For SOEs, the report finds that distress does not restrain these public agents from investing and acquiring new fixed assets to the same extent as it does private firms. As a condition of their recapitalization or other bailouts, SOEs could also be required to expand their investment and stimulate the economy. Focusing on some of the shocks triggering distress, this report finds that private firms confronting a negative revenue shock reduce investments, debt, and paid-in capital. Naturally, the availability of funds to finance asset growth is sensitive to revenue shocks because, for banks and investors, revenue shocks are indicative of repayment capacity. However, for SOEs, the access to financing—whether through equity or debt—is much less sensitive to revenue shocks than for private firms. Therefore, SOEs do not need to adjust to such shocks by reducing their activity to the same extent that private firms do. Private firms infer a negative shock as a market signal to slow down their borrowing and investment, but SOEs can largely ignore such market signals. For this reason, during 2015–17, government support to SOEs in India and Pakistan averaged between 1.2 percent and 1.7 percent of GDP per year (figure O.5).

The adjustments of distressed PPPs are less clear because the contracts that uphold such partnerships are not standardized or transparent. Often their details and the contractual clauses that create various obligations for the government are not disclosed or adequately shared—even with the public debt managers. And when PPPs are renegotiated, the fiscal implications are rarely reported. When the parties do not reach an agreement to

**FIGURE O.4 State-Owned Commercial Banks Adjust Differently from Private Banks in Times of Distress, 2009–18**



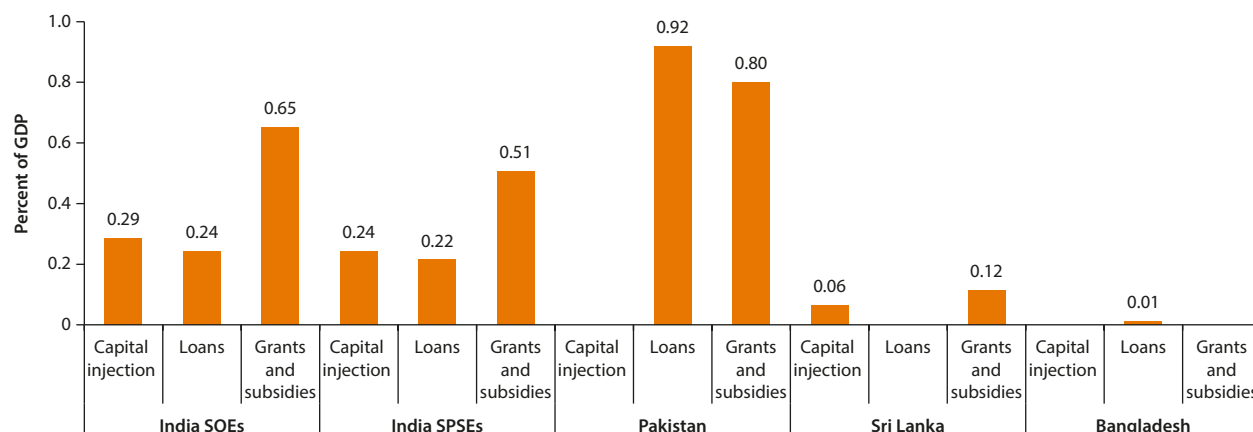
Source: Original calculations for this report.

Note: The bars depict the t-score of the estimated adjustment coefficients. Like the z-score for the population average, the t-score for a regression coefficient helps illustrate the “economic” significance of the estimate by combining its magnitude and associated degree of uncertainty. That is, longer bars in the figure denote that the estimates are generally large and certain, while small bars denote that the estimate is small or uncertain. For instance, the two top bars show that, on average, one can be confident to expect that SOCBs will receive a sizable capital injection (bailout) in times of distress, while private banks in distress will not be able to raise capital and will have to write off some capital. SOCBs = state-owned commercial banks.

renegotiate the PPP, the government often needs to fully compensate the private partners for the debt, equity, and foregone earnings from the failed PPP project. The government can decide to form another PPP to implement the project, implement the project on its own, or not implement the project at all. These adjustments are potentially very costly both fiscally and economically in terms of essential infrastructure that the PPP projects aim to build and operate and that is supposed to reach the most vulnerable firms and communities.

At the subnational level, contingent liability shocks due to distressed off-balance sheet operations have direct budgetary impacts. They require unplanned expenditures if not adequately provisioned for; increase SNG indebtedness; raise their borrowing costs; and shrink their overall fiscal space. The shocks necessitate a fiscal policy adjustment. This adjustment can involve reducing expenditure or increasing revenue or both. SNGs may also receive assistance from the central government, through either increased transfers or loans. Our estimations reveal that after a

**FIGURE O.5** Annual Government Support for South Asian State-Owned Enterprises Could Account for More Than 2 Percent of GDP, on Average, Depending on the Country, 2015–17



Source: Data from government reports, averaged over 2015–17.

Note: Indian state-owned enterprises (SOEs) include both central public sector enterprises (CPSEs) and state public sector enterprises (SPSEs).

contingent liability shock, state governments in India reduce expenditures—split approximately equally between capital and revenue expenditures—and increase revenue through taxes in the subsequent year. Moreover, the states receive assistance from the central government in the form of loans and increased tax devolution.

Overall, SOCBs, SOEs, and SNGs enjoy soft budget constraints and central government bailouts after SOCBs or SOEs get into distress or SNGs experience a financial shock after their own off-balance sheet operations have failed. These soft budget constraints and bailouts could be partly motivated by the government’s “guilt” stemming from unclear mandates it sets for SOCBs and SOEs through ad hoc requests to help with economic stimulus and other political agendas. Given this pattern, accountability, hard budget constraints, and fair monitoring of performance are often not possible together. The public agents and SNGs on the one side of the social contract, and the central government on the other, have settled in a bad equilibrium—one that the economist would characterize as the tragedy of the commons: that is, a situation when a common pool of fiscal resources is overused for self-interest. How fiscally costly

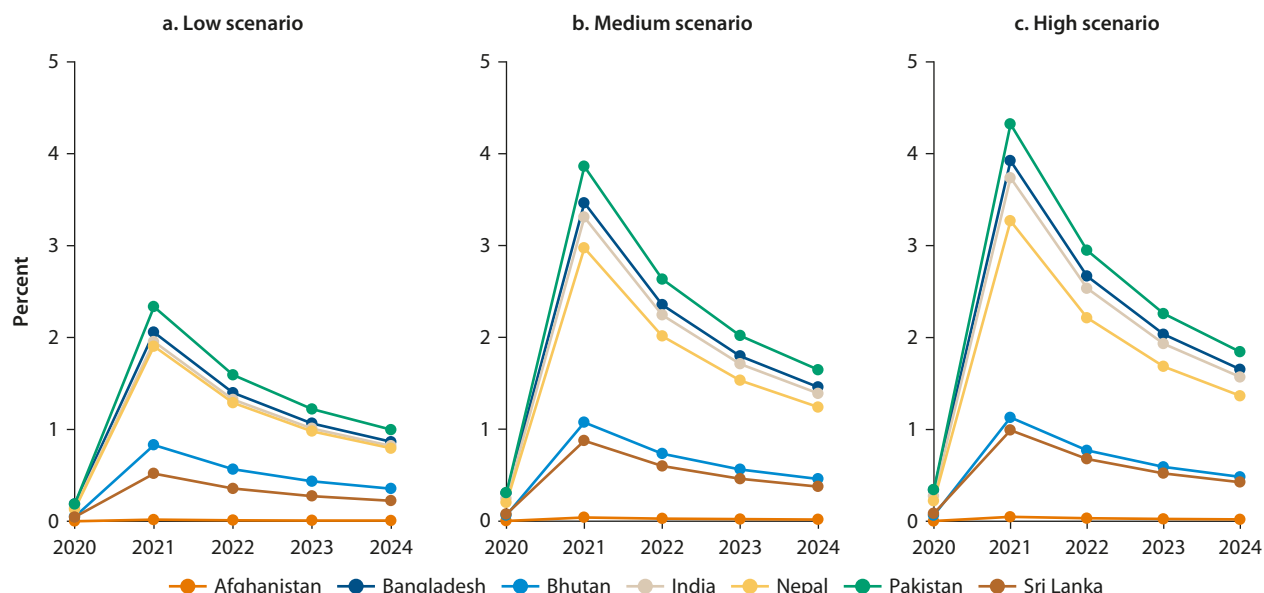
are the distresses of public agents and their adjustments? What are the costs for the real economy and local economic activity? These impacts are explored next.

### The Fiscal Impacts of Distress in Public Agents

The fiscal implications of failing off-balance sheet government operations are sizable and could notably reduce the fiscal space available to South Asian governments. For instance, the report estimates the likely fiscal costs from PPP projects that are terminated early by simulating the effect of a profound macroeconomic crisis in 2020—combining a large depreciation of local currency with banking and debt crises. Such a profound macrofinancial crisis would dramatically increase the fiscal costs from early termination of PPPs, particularly in 2021. The estimated fiscal costs over the 2020–21 period could reach 1.0 percent to 4.3 percent of government revenues. Specifically, they could be as high as 4.3 percent of government revenues in Pakistan, 3.9 percent in Bangladesh, and 3.7 percent in India (figure O.6). In Nepal, early termination of PPPs could require up to 3.3 percent of government revenues, while in



**FIGURE O.6** A Profound Macroeconomic Crisis Could Trigger Failures among Public-Private Partnerships That Would Cost South Asian Governments up to 4 Percent of Revenues



Source: Original figures for this report.

Note: Estimated fiscal costs as a percentage of government revenues from early termination of public-private partnership portfolios assuming a profound macrofinancial crisis.

The huge problem of SOE losses can be addressed by focusing on the largest, chronic loss-makers.

Bhutan and Sri Lanka, it could require around 1 percent of government revenues. These simulations underestimate the effect of the crisis because government revenues are kept constant—even though they would contract during such a profound macrofinancial crisis.

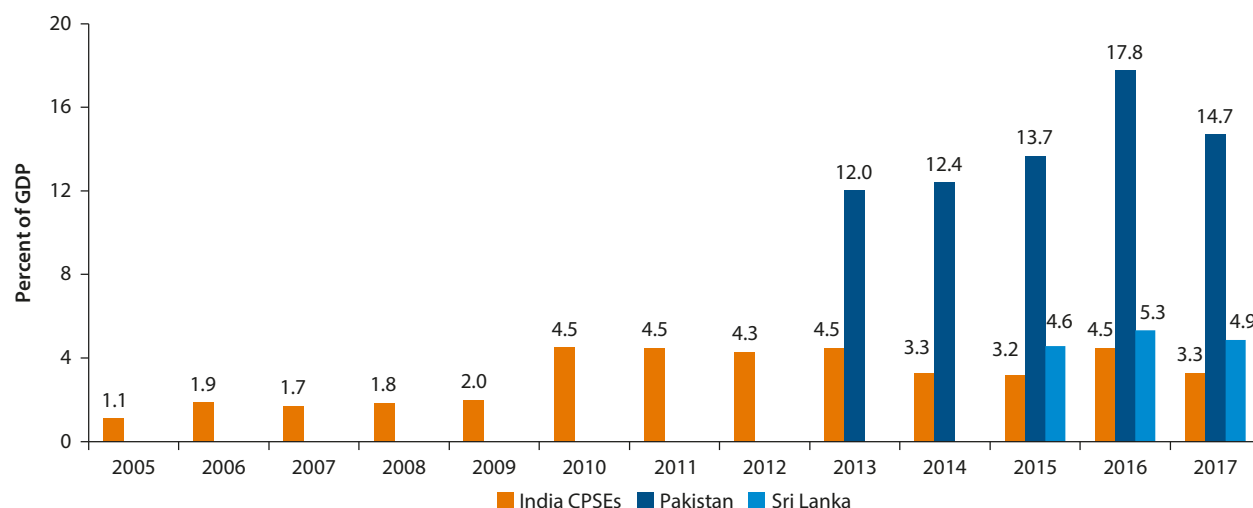
The potential fiscal costs from distressed SOEs are even more overwhelming. Unfortunately, due to the unavailability of data, the report cannot measure SOE-level distress based on the interest coverage ratio for South Asian countries other than India. However, it examined the total liabilities of loss-making SOEs using the limited SOE-level data available for Pakistan and Sri Lanka (figure O.7). In Pakistan, the total liabilities of loss-making SOEs have ranged from 12 percent to 18 percent of GDP in recent years—a remarkably high percentage.

If a more conservative measure is adopted and only chronic loss-makers—defined as SOEs that made a loss in three out of the five past years—are considered, this number remains between 8 percent and 12 percent of GDP. In Sri Lanka, the liabilities of loss-making SOEs have hovered between 4 percent and 5 percent of GDP. If these percentages are deducted from the calculations of available fiscal space, the debt sustainability picture for South Asian countries notably deteriorates. Interestingly, in every country studied, the top 10 loss-making SOEs account for more than 80 percent of the total losses in the SOE sector. Focusing on these heavy loss-makers means that this huge problem can be addressed!

### The Economic Impacts of Distressed Public Agents

One key measure of economic development is the rate at which firms and the local economy invest. The report focuses on such a measure when estimating the economic impact of

**FIGURE 0.7** The Liabilities of Loss-Making State-Owned Enterprises in India, Pakistan, and Sri Lanka Have Been Huge, but More Than 80 Percent of Losses in Each Country Have Occurred in Only the Top 10 Loss-Makers



Source: Data from Prowess and government reports, various years.

Note: Total liabilities of loss-making state-owned enterprises in India, Pakistan, and Sri Lanka (as percentage of GDP). CPSEs = central public sector enterprises.

**Recklessly leveraged public capital by subnational governments has been very costly for local communities and must be remedied.**

frequent distress at public agents and failing off-balance sheet operations of governments.

For instance, the report finds that when firms start borrowing from SOCBs (as opposed to private banks), they systematically invest less. Even firms with high growth of sales and greater investment potential invest less when engaging with SOCBs. The implications of banking with SOCBs are particularly strong for SMEs. Using the Indian Chamber of Commerce definition of SMEs, the report finds that the SMEs that started banking with SOCBs invest much less than other SMEs. This negative SME effect is more significant than the effect of firm size or age. Even more than average SMEs, SOCBs hinder successful SMEs with high sales growth from realizing their investment potential. It seems that SOCBs are particularly challenged by screening the creditworthiness of opaque SMEs and enabling their potential for investment.<sup>5,6</sup> This finding is in line with the existing

literature that shows that SOCB lending induces credit misallocation and does not generally serve credit-constrained SMEs.<sup>7</sup> Our findings therefore suggest that in episodes of systemic shocks—such as the global financial crisis or the COVID-19 pandemic—when many banks experience distress simultaneously, private banks deleverage and curtail lending, while SOCBs receive capital and debt support from the state to continue (or even increase) lending. This short-term, positive stabilizing function of SOCBs for the credit cycle, however, comes at the cost of significant credit misallocation—away from successful firms and especially SMEs. This short-term positive effect makes for an unequal and unfair recovery and helps unproductive, zombie firms linger in the economy in the medium term. It stalls the necessary reallocation of capital (and labor) to enable productive investments.<sup>8</sup>

At the subnational level, how does the distress of off-balance sheet operations and the resulting contingent liability shocks affect local investments in South Asia? Such shocks reduce public capital expenditure and decrease public investment. Consequently, private investment that relies on the execution

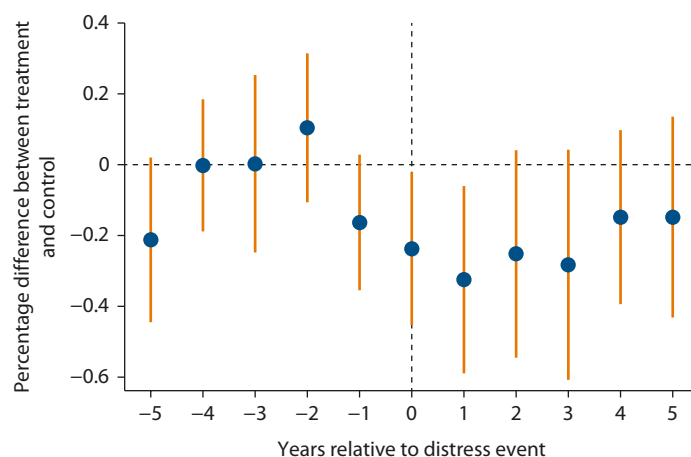
of public investment and is typically crowded in by public investment also declines. Moreover, contingent liability shocks dampen local investments indirectly: for instance, by raising the tax burden and thus discouraging private investment or by reducing the viability of investment projects, firm creditworthiness, and local lending by banks. The report confirms that local investments in Indian states fall significantly in the year of a contingent liability shock, continue to decline in the year after, and remain significantly below the trend for three years after the event (figure O.8). Interestingly, low fiscal capacity and possibly greater reliance on the crowding-in effect of public investments can drive the adverse impact of contingent liability shocks on local investments. For instance, in India's general category states, local investments contract only marginally after the shock. However, in special category states, investments contract by more than 60 percent in the year after a contingent liability shock. Therefore, recklessly leveraged public capital through badly designed off-balance sheet operations of SNGs is a very costly affair for local economies and communities in South Asia. This practice must be urgently remedied by informed policy reforms.

### Factors That Can Help Explain Distress, Inform Policy Reform, and Improve Outcomes

What are some of the main factors that can predict distress and help inform policies to mitigate distress of public agents in South Asia?

- **PPPs.** Larger PPP projects are more prone to distress (figure O.9). The exception is the largest projects—which could perhaps benefit from more checks and balances of more stakeholders. Distress is more likely in certain sectors, particularly railroads, treatment plants, and toll roads. Preserving macroeconomic stability—in particular, preventing the occurrence of local currency devaluations and banking and debt crises—can significantly increase the probability

**FIGURE O.8 Local Investments in Indian States Fall Significantly with a Contingent Liability Shock, Keep Dropping the Year After, and Stay Well Below the Trend for Three Years**

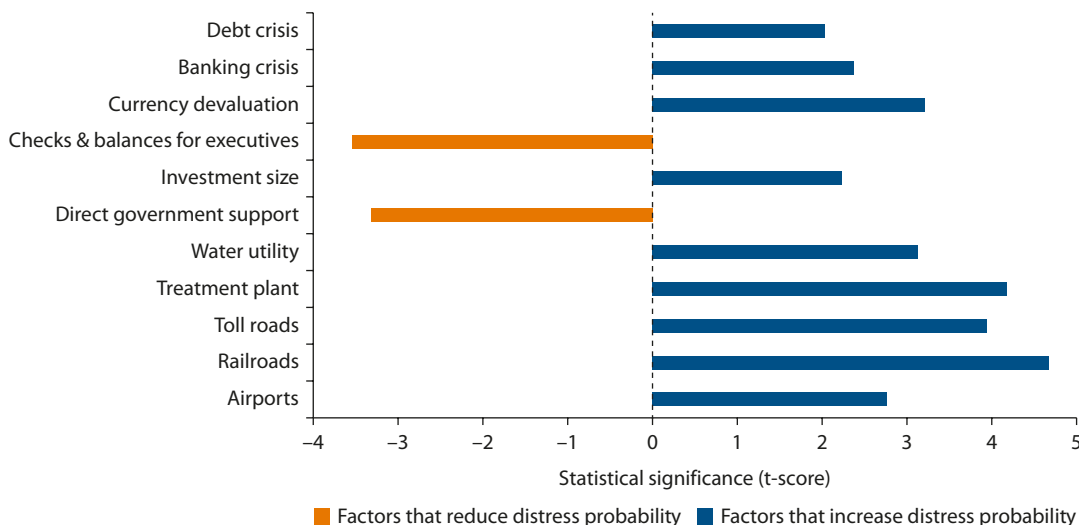


Source: Original calculations for this report.

Note: The figure plots decreases in subnational governments' gross fixed capital formation following contingent liability shocks. The blue dots in the figure mark the value of the estimated effect (regression coefficients) of the occurrence of a contingent liability shock on gross fixed capital formation in the state (in logs). The orange line intersecting each dot marks the 80 percent confidence interval associated with the estimated effect. The underlying regression controls for the confounding effect of business cycle shocks by using common time dummies.

that PPPs will not fail. Institutionalized checks and balances on the decision-making powers of chief government executives reduce PPPs' vulnerability to expropriation by the government, such as through a change in policy or direct political interference. Direct government support to PPPs—involving capital and revenue subsidies as well as in-kind transfers—lowers the probability of distress, perhaps thanks to more effective de-risking of the underlying projects.

The analysis in the report shows that PPPs executed by subnational governments are less likely to face early termination than PPPs with central governments. Perhaps local authorities understand local problems better or oversee projects better because they are nearby. By contrast, national governments may engage in riskier projects because they can bear the termination risk from an individual PPP project thanks to their more diversified PPP portfolio and greater fiscal resources.<sup>2</sup> In terms of contract design, PPP contracts based on

**FIGURE 0.9** Checks and Balances on Government Executives Help Prevent Distress of Public-Private Partnerships

Source: Original calculations for this report.

Note: The bars depict the t-scores of the estimated adjustment coefficients. Like the z-score for the population average, the t-scores for the estimated regression coefficient help illustrate the “economic” significance of the estimate by combining its estimated magnitude and associated degree of uncertainty. That is, longer bars in the figure denote that the estimates are generally large and certain, while small bars denote that the estimate is small or uncertain.

premium payments to government may create an unsound incentive structure and provoke overly optimistic bids from the private sponsor to win a PPP contract.

- **SOCBs.** The extent of government ownership matters in the frequency of distress at SOCBs. SOCBs with a government share of between 50 and 70 percent can be less prone to distress than SOCBs in which government has more than 70 percent ownership. SOCBs can be more fragile by design (Calomiris and Haber 2014). That is, the overall governance around and at SOCBs can expose them to more or greater shocks, such as directed lending, directed support of government programs, political interference in management, forced overemployment, and unqualified employment (Cole 2009; Ashraf, Arshad, and Yan 2018; Richmond et al. 2019). The likelihood of distress increases as bank size decreases. Therefore, smaller SOCBs with more concentrated business models are the most prone to distress. Banks—and SOCBs in particular—that are not able to intermediate the volume of deposits they mobilize are less efficient

and more vulnerable to distress. Credit risk culture and management can help explain the more frequent distress at SOCBs. Interestingly, SOCBs do not appear to take on more risk than private banks. The organizational culture, possibly from formative experiences in sheltered markets, explains the patterns of slower adoption of credit scoring technology and inferior risk management among India’s SOCBs relative to new private banks (Mishra, Prabhala, and Rajan 2019). But this report’s findings also implicate broader governance issues and political economy influences as important factors in shaping the structures and decisions underpinning credit risk management in SOCBs.

- **SOEs.** South Asia’s SOEs do not engage in inherently more risky activities than private firms. For instance, India’s SOEs do not have more volatile sales or profits than comparable private firms, nor are the SOEs concentrated in sectors that have lower profit margins. So, what factors explain SOE underperformance and recurring distress? SOEs overemploy capital

and labor. Controlling for size, age, and sector, the revenue-to-wage bill ratio of SOEs is 85.8 log points lower, and their revenue-to-fixed-assets ratio is 21.5 log points lower than comparable private firms. Thus, SOEs earn less per unit of labor cost and per unit of capital than their private sector comparators. This is despite the SOE's higher debt-to-asset ratio and financial leverage.<sup>10</sup> It has long been argued that SOEs underperform due to various internal management problems.<sup>11</sup> Our findings support the argument that SOEs are constrained from adjusting labor use. Based on the idea that corporate governance reforms could improve SOE performance, such reforms have emerged in South Asian countries. However, this report finds that a higher corporate governance rating for an SOE does not significantly correlate with better SOE performance. Hence, improvements in corporate governance must be complemented by broader reforms in the governing environment around SOEs. One aspect of this environment are soft loans and implicit guarantees that distort the incentives of SOEs to monitor debt levels and act early to improve performance.

- **SNGs.** At the subnational level, when off-balance sheet operations of governments go bad, they trigger contingent liabilities that shock the government fiscal stance. These shocks do not have a purely external origin; they are induced endogenously as a response to political incentives. The report finds that during the run-up to state elections,<sup>12</sup> SNGs assume debt from off-balance sheet operations, such as debt of subnational SOEs, to secure jobs in the short term. At the same time, SNGs delay recognizing some other debt shocks until after elections because the required adjustments and the impact on the local economy may cause political fallout. The contingent liability shocks can be mitigated through increased transparency, such as through the publication of debt-related information. Such measures take time to become effective, but once they do,

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**The negative risks of leveraging public capital can be mitigated and the possible benefits enhanced through four principles: purpose, incentives, transparency, and accountability (PITA).**

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they permanently reduce the likelihood of contingent liability shocks. In addition, financial markets do not help exert discipline on the states by effectively using the disclosed information in their pricing. Although fiscal rules have immediate mitigating effects, these effects are short lived and more significant in fiscally weaker states (such as the special category states in India). Because contingent liability shocks have triggered support from the central government in the past, the states engage in some moral hazard by failing to optimize their efforts to properly manage the risk from contingent liabilities.

Overall, the report finds ample evidence of issues related to unclear objectives of off-balance sheet operations, distorted incentives, weak transparency, and lack of monitoring or faulty monitoring. These and other issues can be addressed by the recommendations that follow.

## Policy Recommendations

The report's findings suggest that the reform agenda to leverage public capital responsibly in South Asia can be framed through four principles: purpose, incentives, transparency, and accountability (PITA).

- **Purpose.** The purpose of off-balance sheet operations and leveraging of public capital through SOCBs, SOEs, or PPPs must be clearly defined by the central government or subnational government as the establisher, owner, or sponsor. This includes formulating a clear vision or mission, setting time-bound objectives, and defining corresponding key performance indicators (KPIs). For example, when a government council formulates the vision and mission

for SOCBs and SOEs, the government entity/unit representing the state as the owner of SOCBs and SOEs in turn can formulate the objectives for each SOCB and SOE (or for each cluster by similar purpose)—such as advancing financial inclusion in rural areas or access to electricity by SMEs. The government ownership entity/unit can further define the corresponding measurable or verifiable KPIs. The KPIs can combine commercial indicators (such as the return on equity) and development outcomes (such as accelerated growth in newly opened and actively used payment accounts by the adult population in rural areas).

- **Incentives.** Institutions, rules, and contracts must be structured in a way that creates proper incentives to perform in line with the defined purpose. The operational costs of SOCBs, SOEs, and PPPs often exceed market costs in order to fulfill their purpose. The nature and extent of these operational costs need to be determined and linked to the government's budgetary and debt management frameworks. For example, expanding connective infrastructure—energy, transport, and ICT—to underserved areas may generate very low commercial returns or losses over the time horizon during which the typical private firm would maximize profits. The length of the horizon over which the activity would become profitable, or the inability to secure all the returns from the activity, may require an ongoing budgetary subsidy. This subsidy must be assigned in the budget and specified in the medium-term fiscal framework. The boards of directors for SOCBs and SOEs must be properly staffed to deliver a skill mix to effectively guide the SOCBs and SOEs in fulfilling the twin objectives of generating both profitability and developmental impact—possibly over longer horizons than commercial private firms. Likewise, PPP contracts must be structured in a way that encourages competitive and responsible bidding as well as fair restructuring of PPPs in distress—rather than their early

termination—and most important, delivers efficiency gains in the construction and operation of the infrastructure. Fiscal rules for SNGs must be binding and their adherence or breach reflected in the degree of fiscal autonomy the central government awards the SNG. For example, on the back of limited transparency, SNGs have used off-balance sheet operations and contingent liabilities to escape from fiscal rules.

- **Transparency.** Two types of transparency are needed. *Debt transparency* and relevant data collection are critical to enable both central governments and SNGs to pull together the big picture of how SOCBs, SOEs, and PPPs shape the fiscal space and contribute to the overall public debt—including direct obligations and explicit and implicit guarantees. Of importance, a meaningful system for setting the probabilities that guarantees are triggered (conversion probabilities) and become direct obligations of the government must be developed, regulated, and enforced. This will require that the accounting and other back office systems of SOCBs, SOEs, PPPs, and SNGs can communicate with the central government's back office systems for debt management. Further, South Asia should move from the cash-based fiscal accounting standards toward accrual accounting to disclose debt and contingent liability risks when they accrue, not when they materialize, to allow for adequate budgeting, decision making, and market response.

*Economic transparency* is also required. It should start with publicly disclosing the policy and purpose of SOCBs, SOEs, and PPPs and enforcing the requirement that each public agent publish its theory of change for fulfilling its objective and purpose. Furthermore, monitoring and evaluation (M&E) frameworks (central, cluster-based, or individual) need to be developed to inform the necessary data collection and to demonstrate economic (development) impact. M&E processes and outcomes should be periodically audited.



For both the financial and economic (development) impact audits, the auditor general of the government and the fiscal council have a crucial role to play in ensuring the thoroughness and quality of these audits and proper functioning of the monitoring system.

South Asian countries—and many other nations—are in the early stages of developing financial and debt transparency. The availability and *quality* of data on SOEs and PPPs—especially subnational ones—and the data quality for SNGs is very low in South Asia. In Pakistan, for example, neither the provinces nor the Ministry of Finance publishes a time series of the provinces' debt that is harmonized, unified, and centrally audited. The total liabilities of subnational SOEs are generally not known and could be in some cases even greater than those of the federal SOEs. While the quality of financial data for SOCBs is slightly better than that of SOEs, the economic transparency of SOCBs is often murkier. For the sake of transparency, the government's medium-term fiscal framework—at both the central and subnational levels—should account for contingent liabilities from PPPs, SOCBs, and SOEs by assessing the public agent's debt trajectories and their sensitivity to shocks as well as keep track of likely government commitments in case of distress.

- **Accountability.** The electorate, civil society organizations (CSOs), industry associations, media, and financial markets must take action to support reform that implements the PIT principles so that off-balance sheet operations of governments cannot be used for political self-interest (such as increasing reelection prospects) or side deals (“I’ll scratch your back if you scratch mine”)—or at least make it harder to do so. Once the reforms are implemented, the electorate, CSOs, industry associations, and financial markets must remain vigilant and active. The actors need to keep testing the justifications for

continuing the off-balance sheet operations—such as the existence of SOCBs and SOEs as well as the use of PPPs for the right purpose and with desirable results. These actors must periodically ask and demand public answers to questions such as the following:

- CSOs, for example, can question whether SOCBs and SOEs expand the reach of public and commercial services to undeserved households and businesses (MSMEs). CSOs can also ask whether it is time for the public agents to gradually exit some market segments and give way to the private sector to ensure that the quality of service is improved on a commercial basis.
- Industry associations must ask whether SOCBs and SOEs can help stabilize the market, set the strategic direction for the industry to decrease investment uncertainty, or generate positive spillovers for the rest of the industry (such as through their R&D investments). Industry associations can point out that market distortions, such as in funding and pricing, as well as product and service competition are becoming so harsh that streamlining or the exit of state ownership from the industry is warranted.
- Financial markets need to have enough information to differentiate good performers from bad ones among SOCBs, SOEs, PPPs, and SNGs, for example, by pricing the debt of worse performers higher than that of good performers. Along with necessary transparency and disclosure, various other steps could help, including developing markets for project bonds to ensure pooled, local-currency funding and market monitoring of PPPs; requiring listing on stock exchanges and public trading of the debt and equity of the agents; issuing of debt (and bail-in instruments) by SOCBs and SOEs; and improving markets for subnational bonds to price the risk of SNG financial performance.

**TABLE 0.1** Implementing the High-Level Policy Recommendations for Public-Private Partnerships, State-Owned Commercial Banks, State-Owned Enterprises, and Subnational Governments

The PITA principles	Public-private partnerships	State-owned commercial banks	State-owned enterprises	Subnational governments
<b>Purpose</b>	To create efficiency in public projects through well-incentivized private sector participation. Should not be used primarily to expand fiscal space (public funding) because infrastructure PPPs are ultimately funded through tax revenues or user fees, which could have been collected by the government if the infrastructure were publicly provided.	To help create markets for financial services by addressing market failures. Typically combine social and commercial objectives. Purely commercial SOCBs could be used to expand government capacity to generate revenue.	To help create markets and provide an alternative to ineffective regulation of natural monopolies in some sectors. Typically combine social and commercial objectives. Purely commercial SOEs could be used to expand government capacity to generate revenue.	To expand the local efficiency of SNG operations and help create local infrastructure, markets, and public services using off-balance sheet operations at the SNG level. Experience suggests caution in expanding these operations rapidly at the SNG level.
<b>Incentives</b>	Improve de-risking of projects and risk sharing between the government and private sector. Risk must be addressed by the government and efficiently assigned between the public and private partners, not simply passed on to the private partner. Establish checks and balances on the powers of executives to mitigate expropriation risks and corruption and strengthen governance around PPPs. Ensure that the contract design encourages competitive but responsible bidding.	Establish fiscal provisions to cover the above-market operating costs and risk taking needed to pursue legitimate objectives. Avoid using commercial operations to cross-subsidize social functions. Couple assurances that fiscal transfers will cover legitimately higher losses with binding rules and hard budget constraints. Ensure proper supervision by an independent regulator.	Include fiscal provisions in medium-term expenditure and debt management frameworks to cover the above-market operating costs needed to pursue legitimate objectives. Ensure that the distribution of transfers is timely to keep incentives aligned. Couple assurances that fiscal transfers will cover legitimately higher losses with binding rules and hard budget constraints.	Make the ability to run sizable off-balance sheet operations through PPPs, SOCBs, and SOEs an earned privileged that responsible SNGs obtain with greater autonomy. So far, the incentive for off-balance sheet operations has largely been the escape from subnational fiscal rules. Consider empirical evidence that subnational PPP projects have been more successful—thanks to more efficient local supervision—than subnational SOCBs and SOEs because of their more concentrated geographic and industry risks, as well as weaker governance of subnational SOCBs and SOEs.
<b>Transparency</b>	South Asian governments should move from cash-based fiscal accounting standards toward accrual accounting to disclose debt and contingent liability risks when those risks accrue, not when they materialize, to allow for adequate budgeting, decision making, and market response.			
	Disclose and gradually standardize contracts for PPPs. Link all contingent liabilities from PPP contracts to medium-term expenditure and debt management frameworks. Publicly disclose the entire compensation of private partners in case of success or failure. Publish private bids to enable monitoring by the public and competitors to enforce bidding that is both competitive and responsible.	Publicly disclose SOCB lending to and funding from SOEs, together with the policy/directed lending share of the SOCB loan portfolio, within the audited financial statements of SOCBs. Shift SOE investment borrowing from SOCBs to capital markets through the issuance of SOE corporate bonds or government bonds.	Better assess and monitor the fiscal risks from SOEs. Incorporate them into fiscal planning and debt management frameworks. Improve collection of financial data of subnational SOEs so that, for example, the total liabilities of all SOEs are disclosed. Ensure adequate provisions to meet each contingent liability, and all contingent liabilities, without disrupting public spending plans.	Collect and consolidate information on debt and other contingent obligations through a single entity at the subnational level, such as a specialized debt management unit within the Finance Department. Further consolidate data at the central government level to disclose the big picture. Audit, analyze, and publicize the data on consolidated debt and contingent obligations through an independent national agency, such as the fiscal council, to ensure the consistency and accuracy of the data.
<b>Accountability</b>	The electorate, civil society organizations, industry associations, media, and financial markets must take action to support reform that implements the PIT (purpose-incentives-transparency) principles so that off-balance sheet operations of governments cannot be used for political self-interest or side deals—or at least make it harder to do so. Once the reforms are implemented, all these actors must remain vigilant and active and keep testing the justifications for continuing off-balance sheet operations.			

Source: World Bank.

Note: PITA = purpose, incentives, transparency, accountability; PPPs = public-private partnerships; SNGs = subnational governments; SOCBs = state-owned commercial banks; SOEs = state-owned enterprises.



In closing, while public policy must lead, it takes a concerted effort by society to ensure that the off-balance sheet operations of government make sense and responsibly leverage public capital for the sake of more rapid and more equitable development. Table O.1 summarizes the high-level policy recommendations discussed in this report and organizes them into a matrix with the PITA principles in the rows and the types of public agents in the columns. The report chapters discuss these recommendations in detail.

## Notes

1. Note that contingent liabilities can originate from many sources, such as potential bailouts of systemically important banks, unexpected costs from litigation against the government, natural disasters, and schemes that the government may run (pensions and health insurance obligations or social transfers in recessions). For instance, Bova and others (2016) estimate that the largest average fiscal cost of contingent liability realizations for 80 countries sampled came from financial sector support and bank bailouts in financial crises, followed by the unexpected litigation costs. This report focuses on a narrower set of potential contingent liabilities related to PPPs, SOEs, and SOCBs, including at the subnational government level.
2. See the PPI Data page at <https://ppi.worldbank.org/en/ppidata>.
3. When the government finishes the project on its own as the sole financier and overseer, it may either use SOEs or contract private firms to build, operate, and/or maintain the infrastructure. Because the government is unable to manage the project implementation as efficiently as the private sector, a large part of the implementation efficiencies will be lost even if the government contracts private firms to build, operate, and/or maintain the infrastructure.
4. Special category status is a classification given by India's central government to assist in the development of states that confront geographical and socioeconomic disadvantages, such as hilly terrains, strategic international borders, economic and infrastructural backwardness, and nonviable state finances.
5. It is not clear whether this finding might be due to SOCBs not lending enough to SMEs overall or their willingness to lend to SMEs only for working capital needs. Future research could examine this.
6. Anecdotal evidence suggests that SOCBs focus more on meeting lending quotas for the volume of extended credit than they focus on the quality of project screening. These quotas are more easily met by serving larger firms—including SOEs implicitly backed by a government guarantee—than opaque and riskier SMEs. Therefore, the combination of more frequent distress with the inability to take informed risks and manage them makes SOCB operations problematic for private sector development (Mishra, Prabhala, and Rajan 2019).
7. For example, studies for India (Cole 2009), Pakistan (Khwaja and Mian 2005), and Brazil (Carvalho 2014) show that SOCBs induce significant credit misallocation in the economy. Besides being more politicized and inefficient, the lending of SOCBs may not reach more credit-constrained economic agents such as SMEs (see Berger et al. 2008; Ongena and Sendeniz-Yüncü 2011).
8. However, this is not to deny the successes of SOCBs in mobilizing deposits, advancing financial inclusion in digital payments, or facilitating relief after disasters (World Bank 2020a).
9. Highway projects in India provide an interesting example: All the highway projects that were canceled between 2012 and 2015 were PPPs with the central government. At the same time, however, state governments continued to form successful PPPs for road construction and operation.
10. Interestingly, CPSEs compensate for the overuse of labor by “underusing” other inputs. For example, SOEs could be using more manual processes that consume less power.
11. It is harder to align the incentives of management and owners in the public sector (Ehrlich et al. 1994). The compensation of managers is weakly linked to the SOEs' market performance (Borisova, Salas, and Zagorchev 2019), and SOE managers are prevented from making optimal choices, for example, because of a government mandate leading to excessive hiring (Shleifer and Vishny 1994).
12. We focus on the state legislative assembly (Vidhan Sabha) elections, which largely determine the state-level governments, which hold fiscal authority.

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# South Asia Development Matters

## OVERVIEW

### Hidden Debt

#### Solutions to Avert the Next Financial Crisis in South Asia

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The COVID-19 crisis, which has sent economies in South Asia and around the world into a deep recession, has highlighted South Asia's rising debt levels and sizable hidden liabilities. State-owned enterprises, state-owned commercial banks, and public-private partnerships have been at the center of the rising debt wave and the latest pandemic response. Historically, South Asia has relied on these direct public interventions more than other regions. The interventions have helped governments tackle key development challenges and rapidly deliver relief measures during crises. However, because of their inefficiencies and weak governance, the interventions are also a significant source of public indebtedness and macrofinancial risks.

*Hidden Debt* examines the trade-off between *tackling* development challenges through direct state presence in the market and *avoiding* unsustainable debt due to economic inefficiencies of such off-balance sheet operations, which greatly leverage public capital. The study recommends a reform agenda based on the four interrelated principles of purpose, incentives, transparency, and accountability (PITA). The reforms can mitigate the risks that off-balance sheet operations will become the source of the next financial crisis in South Asia.

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