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F I S C A L   A F F A I R S   D E P A R T M E N T

Brazil

Public Investment Management Assessment

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Technical Assistance Report

November 2018

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GLOSSARY

ANEEL Independent Regulator for Electricity
BNDES Brazilian Development Bank
BRICS Brazil, Russia, India, China and South Africa
CC Casa Civil da Presidência da República
CGPAC PAC Management Committee
CGU Internal Audit Agency of the Federal Executive
DNIT Department of National Transport Infrastructure
EC95 Constitutional Amendment No. 95 (2016)
ESAF School of Financial Administration, MOF
FRL Fiscal Responsibility Law (2000)
FSS Fiscal Strategy Statement
LDO Lei de Diretrizes Orçamentárias (Budget Guidelines Law)
LOA Lei Orçamentária Anual (Annual Budget Law)
MOF Ministry of Finance
MPDG Ministry of Planning, Development and Management
MTBF Medium Term Budget Framework
MTFF Medium Term Fiscal Framework
PAC *Programa de Aceleraçao do Crescimento* (Program for the Acceleration of Growth)
PFM Public Financial Management
PIL *Programa de Investimento em Logistica* (Program for Investment in Logistics)
PIM Public Investment Management
PLOA Projeto de Lei Orçamentária (Draft Annual Budget Law)
PLDO Projeto de Lei de Diretrizes Orçamentárias (Draft Budget Guidelines Law)
PPA *Plano Plurianual* (Multi-Annual Plan)
PPI *Programa de Parcerias de Investimentos* (Program for Investment Partnerships)
PPP Public-Private Partnerships (includes Concessions)
RAP *Restos a Pagar* (Committed but not paid expenditures)
RDC Differentiated procurement regime for major public works
SDI Secretary for Infrastructure Development, MPDG
SEST Secretary for Coordination and Governance of State Enterprises, MPDG
SEGES Secretary for Management, MPDG
Seplan Secretary for Planning and Economic Affairs, MPDG
SGPAC Database of centrally-funded projects (both PAC and non-PAC)
SIAFI Federal Government's Financial Information Management System
SIOP Integrated Information System for Planning and Budget
SISPAC Information System for PAC Monitoring
SOE State-Owned Enterprises
SOF Federal Budget Office, MPDG
SPPI Secretariat Supporting the Program for Investment Partnerships, Casa Civil
STN National Treasury Secretariat, MOF
TCU *Tribunal de Contas da União* (Federal Court of Accounts)
VfM Value-for-money analysis

PREFACE

At the request of the Secretary to the National Treasury, a mission from the IMF's Fiscal Affairs Department (FAD) visited Brasilia, Brazil during the period August 9-23, 2017 to conduct a Public Investment Management Assessment (PIMA). The mission was led by Teresa Curristine and comprised Fabien Gonguet (both FAD), Mary Betley, Matt Crooke and Eivind Tandberg (all FAD experts). The mission had World Bank and IADB participation from Andrés Munoz Miranda (IADB), Frederico Rabello and Lorena Viñuela (both WB). Fabian Bornhorst (IMF Resident Representative) also participated in the mission.

The mission met with the Ms. Ana Paula Vescovi, Secretary of the National Treasury, Ministry of Finance (MOF), and Mr. Hailton Madueira, Secretary of Infrastructure Development, Ministry of Planning, Development and Management (MPDG) and their officials. Within the Ministry of Finance, the mission held meetings with the Treasury Secretary, Deputy Secretary, Mr. Otávio Ladeira de Medeiros, and the Undersecretary for Fiscal Planning, Mr. Pedro Jucá and their teams. Within MPDG, the mission held meetings with Mr. Bruno Leal, Ms. Viviane Vecchi Mendes, Mr. Manoel Filho, Ms. Joana Soledade and Mr. Guilherme Bianco (all SDI), Mr. Paulo Isobe (SEPLAN) and Mr. Paulo Fattori (SEST), Mr. Fábio Pontes (SOF) and Ms. Cynthia de Toledo Losso (SEGES) and their teams. The mission was hosted by Mr. Felipe Bardella (Coordinator-General, Cesef) and Mr. Marcelo Pioto (Coordinator, Coapi) and their teams.

The mission met with officials from Casa Civil (the Presidency), Federal Court of Accounts (TCU), and CGU, as well as from sector ministries and agencies including Mines and Energy; Transport and Civil Aviation; Health; Cities; Science, Technology, Innovation and Communications, as well as senior representatives from related portfolio agencies and regulatory bodies. Finally, the mission met officials from BNDES, Caixa Economica Federal, the Brazilian Association of Road Concessionaires (ABCR) and a number of State-Owned Enterprises (SOEs).

The mission held two workshops. The first presented the PIMA methodology and the second discussed preliminary scores and findings. The meetings were attended by officials from the National Treasury Secretariat (STN), MOF, MPDG, spending ministries and audit agencies.

The mission would like to thank the Brazilian authorities for their cooperation and hospitality and for facilitating open and constructive discussions on all the topics addressed in this report. The mission would especially like to thank Mr. Felipe Bardella, Mr. Marcelo Pioto and Ms. Renata Cerqueira from STN and Ms. Viviane Vecchi Mendes from MPDG, together with their staff for their excellent help with organizing the mission and providing extensive assistance with documentation.

EXECUTIVE SUMMARY

Brazil is the largest country in Latin America with a varied geography and a population of over 200 million spread across 26 diverse states, generating wide-ranging infrastructure needs. Over the decades, many government investment initiatives have been launched to address these needs, however there remains a significant infrastructure gap in Brazil which continues to hamper growth potential.

Over the past two decades, public investment has been considerably below the regional and income group averages and this has translated into much lower capital stock. Public investment averaged around 2 percent of GDP during the period 1995 to 2015, compared with 6.4 percent for Emerging Market Economies (EME) and 5.5 percent for Latin American Countries (LAC). As a result, public capital stock in 2015 was only 35 percent of GDP compared with an average of 92 for EME and 87 for LAC.

Given the current limited fiscal space, the government is seeking to improve public investment efficiency and to promote more private sector investment through concessions. With the recent economic recession and the large drop in revenues, debt has increased above the EME average. This, combined with budget rigidities and rising mandatory spending, reduces fiscal space for capital spending.

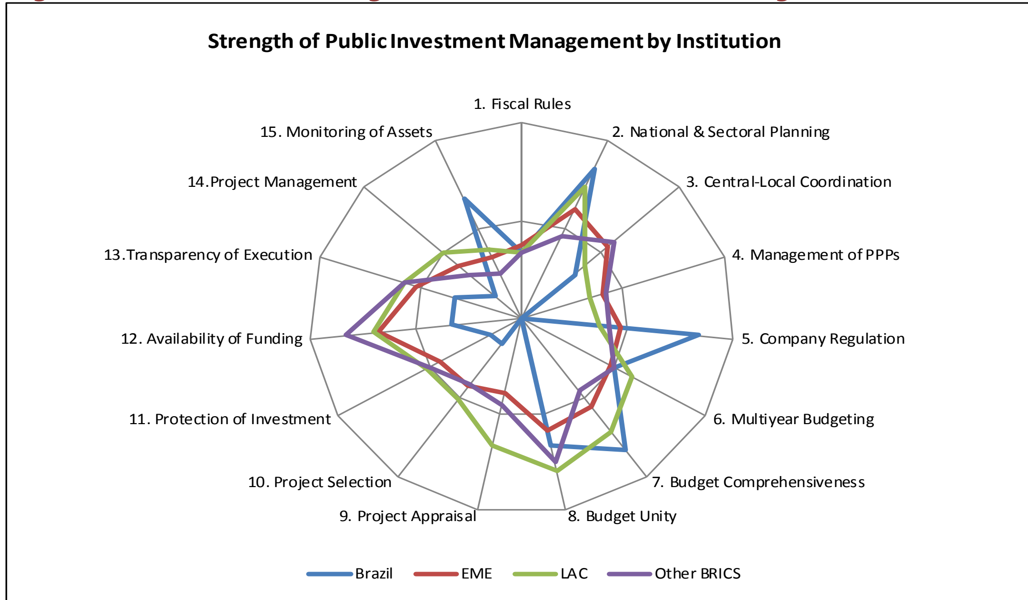
The government recognizes that improving the efficiency of public investment is essential to enhance the quality of infrastructure and to meet citizens' needs. There is significant room to improve public investment efficiency. The efficiency gap between Brazil and the most efficient countries with comparable levels of public capital stock per capita is 39 percent. The gap is wider than the average for the EME (27 percent) and LAC (29 percent).

Strengthening public investment management (PIM) institutions will help to close this efficiency gap. The mission assessed the strength and quality of PIM using the IMF's Public Investment Management Assessment framework (PIMA).[1] It found that the majority of Brazil's public investment institutions are of medium strength on paper (i.e. institutional strength). However, implementation is variable and effectiveness is weak in many areas. Figure 0.1 shows the areas of relative institutional strength and weakness.

Brazil's PIM institutions are stronger than the averages for EMEs and LAC in some areas and comparatively weaker in others. The stronger areas include national planning, budget comprehensiveness, company regulations and monitoring of assets. The weaker areas are in the allocation and implementation phases, especially project appraisal and selection, protection of investments, funding availability and project management. The majority of institutions, are assessed as medium or low in terms of practical implementation and effectiveness.

[1] Figure 1, Table 1 and Annex 1 summarize the results of this assessment, and more details on the individual institutions are provided in Section III of this report.

Figure 1. Institutional Strength of Public Investment Management Institutions



Source: Staff estimates

The most significant areas of weakness are in the strategic prioritization of investment and project selection and appraisal. There is a lack of high-level guidance on priorities and poor coordination across levels of government. There are no central guidelines on project appraisal and selection. These weaknesses often result in poor quality projects, which affects project implementation. This combined with a lack of capacity at the subnational level and among some spending ministries, poor project management and uncertain funding, contributes to weak project execution, cost overruns, delays and poor-quality infrastructure.

These issues reflect the complexity and fragmentation of the PIM system. This is a common challenge in federal systems, especially when there are a large number of actors and modalities for financing and executing public investment. In Brazil, these actors include the federal government, subnational governments, state-owned enterprises (SOEs), public banks, concessionaires and extra-budgetary funds. This fragmentation at vertical and horizontal levels leads to a lack of uniform practices and approaches. A strong legalistic approach prioritizes compliance over efficiency and outcomes; and complex, detailed-oriented systems, exacerbate the lack of strategic direction and prioritization.

Reforms in many areas are underway to seek to address these challenges. In 2016, to promote private investment, the government launched a program to better coordinate and centralize concessions. The Ministry of Planning, Development and Management (MPDG) is developing central project selection guidelines. The Casa Civil is working on a long term national investment plan. The legal framework has been reformed to improve SOE governance, and there are draft laws on improving the governance of regulatory agencies and updating the public financial management (PFM) system, which includes proposals for a national investment project pipeline.

Taking into account these initiatives and the assessment's results, this report provides ten main recommendations to strengthen PIM and improve its effectiveness. Table 2 presents

an action plan for implementing these recommendations over the short and medium term and Chapter IV provides a detailed discussion on each recommendation. The high-priority recommendations are as follows.

Increase budget flexibility and develop medium-term frameworks. Create fiscal space for public investment by reviewing mandatory spending, indexation practices and tax expenditures. Strengthen the medium-term perspective on fiscal and budget management to create a more realistic alignment between planning, budgeting and the availability of public funding.

Strengthen strategic prioritization of public investment and develop a prioritized portfolio (bank) of high quality projects. Prepare a national strategy for investment which focuses on a national vision and broad strategic objectives. Develop a prioritized portfolio of major (e.g., above 50 mn Rs) high-quality projects and develop a standardized process for other public investment projects.

Improve coordination between federal and subnational governments in investment planning and review funding mechanisms. Find a better balance between the need for federal oversight and greater devolution of accountability to subnational governments. Build subnational PIM capacity and reduce the fragmentation of federal funding. Pilot a program-based approach to transfers for social infrastructure projects in one or two high capacity states.

Strengthen and standardize procedures for project preparation, appraisal and selection. Establish and codify in legislation a new rigorous process for appraisal, approval and selection of large public investment project proposals. Introduce and produce central guidelines to standardize processes of project appraisal, to be applied to all capital investment (See annex 5).

Enhance the predictability of funding for major capital projects. Strengthen budget preparation to enhance the realism of capital budgets. Prioritize major capital projects within annual commitment ceilings. Revise budget regulations to allow for multi-year appropriations in special cases.

Enhance project management capacities and accountability. Prepare a government decree regarding key parameters and responsibilities for management of public investment projects, including assignment of accountability to specific project managers. Develop comprehensive guidelines for project management across government. Conduct training for federal and subnational program managers and staff.

Modernize public procurement. Update the procurement framework for major projects by removing barriers to foreign participation, enhancing competitive outcomes and striking a better balance between price and quality in project bidding.

Other medium-term priorities include improving the strategic framework for PPPs and concessions, improving the independence of regulatory agencies, and developing systematic approaches for maintenance planning, budgeting and execution.

Table 1. Summary Assessment

Phase/Institution			Institutional Strength	Effectiveness	Reform priority
A. Planning	1	Fiscal rules	**Medium.** Fiscal policy is guided by the FRL EC95 and the Golden Rule but there is no public debt anchor.	**Low.** Due to collapse of revenues, debt has increased and cuts were applied to investment to comply with primary targets.	High
	2	National and sectoral planning	**High.** A large number of national and sectoral strategies coexist with information on costs and a focus on outputs.	**Low.** Weak prioritization, unrealistic costing and congressional amendments have undermined the potential for planning.	High
	3	Central-local coordination	**Medium.** The federal government oversees local borrowing operations and capital transfers, but federal and local investment are largely not coordinated.	**Low.** Capital transfers are fragmented and federal government has a large role in planning projects that could be devolved to local governments.	High
	4	Public-private partnerships	**Low.** There is a legal framework for PPPs and concessions, but no published strategy nor standard criteria for selection and no recording of contingent liabilities.	**Medium**. Recent reforms have centralized the selection of major concessions to help remove bottlenecks in the project cycle.	Medium
	5	Regulation of infrastructure companies	**High.** The legal framework is intended to promote competition and there are economic regulators in most infrastructure markets.	**Low.** There are barriers to effective market access. Regulatory agencies are both regulators and contract managers and could be more independent.	Medium
B. Allocation	6	Multi-year budgeting	**Medium.** Projections over the four-year period of the PPA are set out by ministry and program, but there are no multi-year budget ceilings on capital expenditure.	**Low.** PPA's four-year projections are not broken down by year and they are not updated. There are no full life cycle costs.	High
	7	Budget comprehensive-ness	**High.** The information on capital investment is comprehensive in the LOA.	**High.** Comprehensiveness could be improved by including more information on concessions with LOA.	Low
	8	Budget unity	**Medium.** Capital and recurrent budgets are prepared by a single ministry and presented in a single document but not by program.	**Medium.** There is no process by which the budget can systematically incorporate the future recurrent costs associated with investment projects.	Medium
	9	Project appraisal	**Low.** There are no standardized guidelines for project appraisal in place and no requirement for financial/economic analysis.	**Low.** Project proposals are not systematically subject to financial feasibility or economic analyses.	High
	10	Project selection	**Low.** There are no standardized criteria or a common process for project selection.	**Low.** There is not an effective gatekeeping process for inclusion of projects in the budget.	High
C. Implementation	11	Protection of investment	**Low.** Formal rules provide little protection of capital spending during budget implementation.	**Low.** Actual budget practices do not provide predictability of capital budget funding.	Medium
	12	Availability of funding	**Medium.** Cash forecasts are prepared regularly and donor funding is well integrated into cash management.	**Low.** Sequestration and cash rationing are applied regularly and hinder efficient capital project implementation.	High
	13	Transparency of execution	**Medium.** PAC projects are subject to monitoring but the transparency of capital budget execution is variable.	**Low.** There is no systematic *ex post* audit, and weak procurement practices further reduce the effectiveness of capital budget execution.	Medium
	14	Project management	**Low.** There are no standardized approaches to management of major capital projects.	**Low.** Major capital projects have generally had significant cost overruns and delays.	High
	15	Assets accounting	**Medium.** Non-financial assets are accounted for and reported in financial statements.	**Medium.** New regulations on accounting reform have been produced to support enhanced scope and consistency of accounting.	Low

Table 2. Action Plan

HIGH-PRIORITY RECOMMENDATIONS				
Output/Outcome	**Late 2017 / 2018**	**2019**	**2020**	**Responsible agency**
Recommendation 1: Building on existing initiatives, increase flexibility in the budget and develop medium-term frameworks				
Review of current budget rigidities	Commence review of mandatory and indexation practices and implement measures.			CC / SOF / STN
Fiscal strategy and fully-fledged medium-term fiscal framework (MTFF)	Establish Ministerial and technical fiscal committees. Publish fiscal strategy statement. Adopt an internal debt target. Release the fiscal strategy statement with the PLDO 2019.	Move to a formal debt target, and include it in the fiscal strategy statement.		SOF / STN / Committees
Medium-term budget framework (MTBF)	Technical Committee to lead development of MTBF. SOF to lead work with major ministries. Have baseline estimates ready before 2019 budget process.	Expand coverage to all ministries.	Publish forward estimates; use updated baselines in budget ceilings.	SOF / STN / spending ministries / Committees
Recommendation 2: Strengthen strategic prioritization of public investment and develop a prioritized portfolio (bank) of high-quality projects				
High-level investment strategy to guide sector ministries in developing sector-level strategies	Prepare national strategy for investment consistent with MTFF.	Spending ministries to develop sector strategies in line with national strategy.		CC / MOF / MPDG / spending ministries
Portfolio of prioritized, major projects consistent with MTFF	Rationalize current projects to focus only on major public investments.	Create a prioritized portfolio of high-quality major projects.	Maintain targeted project portfolio consistent with MTFF / MTBF.	MPDG / STN
Framework guiding other public investment	See recommendations 6 and 8.	Spending ministries to rationalize internal investment portfolios.	Maintain quality project portfolios consistent with MTFF / MTBF.	MPDG / STN / spending ministries
Recommendation 3: Improve coordination between federal and subnational governments in investment planning and review funding mechanisms				
Improved planning and budgeting mechanisms	Pilot program-based transfers in one or two states. Consolidate *convênio* arrangements for single project funding.	Extend program-based approach and introduce risk-based selection / monitoring.		MPDG / STN / spending ministries / subnational governments

Output/Outcome	Late 2017 / 2018	2019	2020	Responsible agency
Better coherence between congressional amendments and investment planning	Require congressional amendments have an assessment of coherence with sectoral needs.	Limit congressional amendments on investment to existing programs or initiatives.		CC / MPDG / spending ministries / Congress
Recommendation 4: Strengthen and standardize procedures for project preparation, appraisal and selection				
Strengthened gatekeeping role for inclusion of projects in the budget	Introduce / enforce formalized, rigorous process for project preparation and selection.	Introduce / enforce standardized procedures for VfM analyses.		MPDG/MOF Ministries
Methodological guidelines developed on appraisal and costing	Prepare detailed guidelines on costing, project appraisals, and VfM techniques.	Provide training and establish a central cadre of specialists to support ministries.	Publish the results of major project appraisals.	MPDG/MOF Ministries
Recommendation 5: Enhance the predictability of funding for major capital projects				
Credible annual commitment ceilings for major capital projects	Prioritize major capital projects within annual and in-year ceilings.			MPDG/MOF
Multi-year appropriations and carry-forward of budget authority		Adopt regulations to allow multi-year appropriations in special cases and carry-forward with limits		MPDG/MOF
Recommendation 6: Enhance project management capacities and accountability				
Clearly-defined project management framework	Prepare government decree to assign accountability.	Develop guidelines. Provide centralized resources.	Require project implementation plans prior to budget funding.	MPDG / STN
Systematic preparation and publication of *ex post* reviews and evaluations	Consider consulting with TCU to assess their interest in conducting *ex post* audits of capital projects.	Include *ex post* audits in CGU work program.		CC / Congress
Well-trained project management staff at all government levels		Conduct training programs.		MPDG
Recommendation 7: Modernize public procurement				
Review the RDC Procurement Framework	Conduct independent review of RDC.	Set targets for improving RDC outcomes. Publish annual procurement plan.		MPDG

Output/Outcome	Late 2017 / 2018	2019	2020	Responsible agency
Monitoring of RDC outcomes	Establish central oversight to ensure quality and consistency of RDC processes and documents.	Publish regular reports on and analysis of the outcomes of RDC processes.	Conduct ex post reviews of RDC procurement processes.	MPDG
Complaints handling and dispute resolution		Establish an independent complaints and dispute resolution body.		MPDG
MEDIUM-PRIORITY RECOMMENDATIONS				
Output/Outcome	**Late 2017 / 2018**	**2019**	**2020**	**Responsible agency**
Recommendation 8: Improve the strategic framework for PPPs and concessions and strengthen analysis				
Strategy for PPPs and concessions in line with National Investment Plan	Publish a national strategy on PPPs and concessions.	Ensure unsolicited bids are consistent within the strategy and subject to competitive auction.		CC / SPPI
Strengthen gatekeeping for PPPs / Concessions	Ensure VfM analysis is conducted at a central level (see Rec 6).	Ensure centralized oversight of all new projects.		SPPI / MOF
A consolidated vision of fiscal risks involved with the current portfolio	Develop a database of federal concessions and PPPs.	Publish a list of the largest federal concessions and PPPs.	Extend the list to subnational PPPs and concessions.	STN / SPPI
Recommendation 9: Improve the clarity of roles and independence of regulatory agencies				
Strengthen legal framework for governance of regulatory agencies	Adopt draft law after review to ensure consistency with OECD regulatory independence guidelines.			MOF
Stable and predictable resources for regulatory agencies	Adopt new guidelines on the budget of regulatory agencies.	Explore new self-funding possibilities (fees).		CC / MPDG / MOF / Spending ministries
Recommendation 10: Develop systematic approaches to maintenance planning, budgeting and execution				
Framework for maintenance spending	Link maintenance to life-cycle costing of projects.	Evaluate current / capital maintenance needs over the medium term.	Integrate maintenance spending within MTBF.	MPDG (Seplan, SOF) STN, spending ministries
Track maintenance spending	Assign a 'marker' for maintenance spending within the budgeting and accounting systems.			MPDG (SEGES), STN

I. TRENDS IN PUBLIC INVESTMENT IN BRAZIL

A. Trends in General Government Investment and Capital Stock

1. **General government investment in Brazil has consistently lagged behind the averages for emerging market economies (EME) and Latin American countries (LAC).** In Brazil, it has represented between 1 and 3 percent of GDP over the past 25 years. However, general government investment has been on average, three times higher in EME and 2.5 times higher in LAC more than four times higher in other BRICS[2] countries (Figure 2).

2. **Over the past twenty-five years, general government investment in Brazil has mostly followed the economic cycle.** It rebounded after the early 1990s recession to reach a high point in 1992, at 3.1 percent of GDP (Figure 3). It then went through a period of slow erosion for almost ten years, in times of relatively slow growth, reaching a low point in 2003 (1.1 percent of GDP). In the boom period of the mid to late 2000s, general government investment steadily climbed back to its long-term average of 2 percent of GDP. But the recession that Brazil experienced in recent years has once again diminished the level of investment carried out by general government. According to IMF projections, general government investment is expected to be cut by one-third in 2017 relative to its 2014 level[3]. Over the period, the contribution of general government investment to total investment and, hence, to GDP growth has been fairly low. While GDP growth has been quite volatile over the period, the variation in general government investment has remained limited.

Figure 2. General Government Investment: Cross-Country Comparisons (% of GDP)

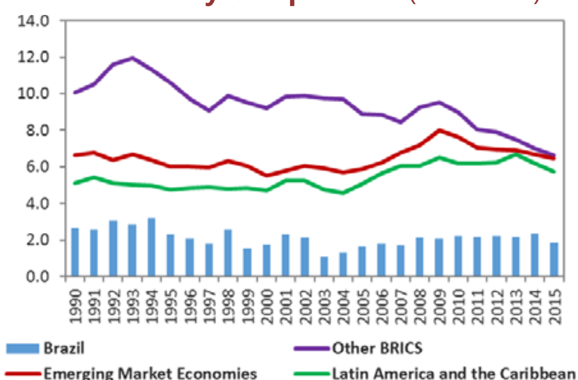
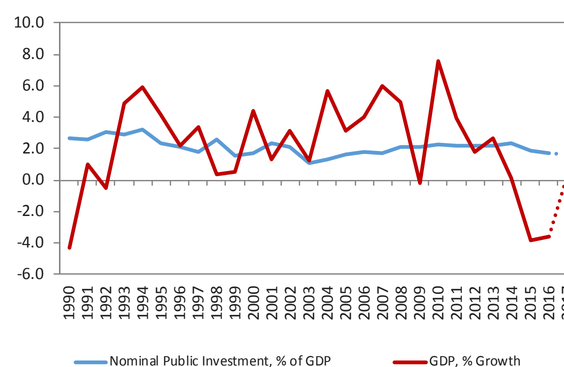


Figure 3. Brazil: General Government Investment and Real GDP Growth



Source: WEO and staff estimates based on official data.

3. **General government investment represents a small share of total investment, and other sources of investment have not filled the gap relative to EME.** General government investment has been on average 2.1 percent of GDP over the past 25 years (Figure 2), or about 10 percent of Brazil's total investment over the period (Figure 4). This is not compensated for by higher private

[2] Other BRICS excludes Brazil

[3] IMF Article IV staff report, 2017.

investment as might be observed in other countries, since private investment levels in Brazil (16 ½ percent of GDP) have also been slightly lower than the average for emerging economies (17 percent of GDP). This is in spite of Brazil's relatively higher incidence of concession/ PPP investments and the large share of investments undertaken by state-owned enterprises (See I.B.).

4. The sustained weakness of general government investment has led to a slow and continuous erosion of the public capital stock. Relative to other BRICS, EME and LAC countries, Brazil's public capital stock as a share of GDP has been on average less than half of these country groups (Figure 5). In Brazil, the public capital stock has declined by close to a quarter between the early 2000s and the early 2010s. Though investment programs have had a positive effect on the capital stock, the improvement in recent years is mostly on account of the denominator declining due to the deep recession. In terms of public capital stock per capita, Brazil is also ranked low relative to several comparable countries (Figure 6). In 2015, the Brazilian public capital stock per capita is similar to Argentina and Chile, however it is significantly lower than other BRICS and Mexico, Uruguay, and Malaysia.

Figure 4. Brazil: Share of General Government Investment in Total Investment (% GDP)

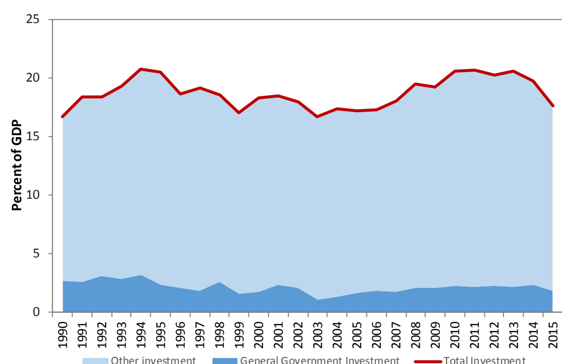
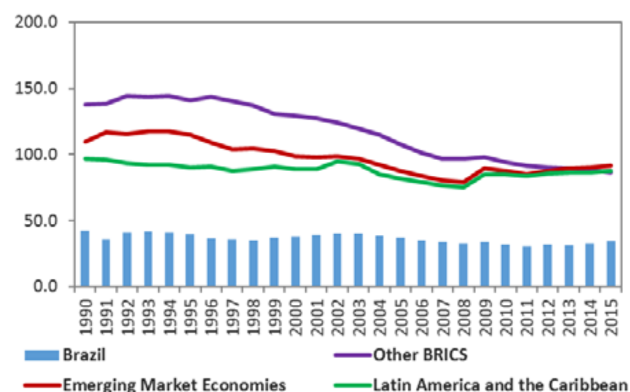


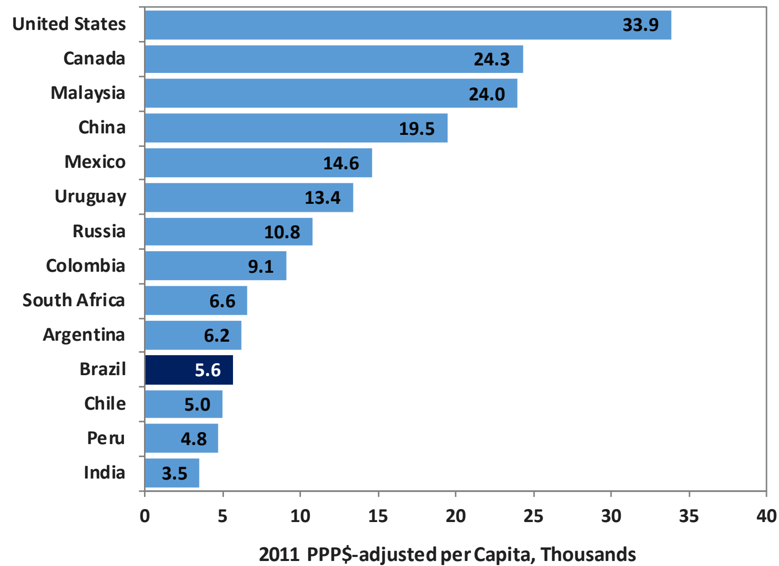
Figure 5. Public Capital Stock: Cross-Country Comparisons (% GDP)



Source: WEO and staff estimates based on official data.

5. The combination of revenue shocks, high debt and significant budget rigidities have impeded Brazil's ability to increase its general government investment. Public debt has increased significantly over the last few years (Figure 7). The impact of the recession on revenues and political difficulties in implementing major saving initiatives has limited the fiscal space available for new spending and demanded sizeable spending cuts. Investment has particularly suffered. Brazil stands out in the region, for having both record-high levels of current spending and among the lowest levels of capital expenditure (Figure 8). This situation is largely due to budget rigidities, which come from mandatory spending items, revenue earmarking and indexation. Though difficult to undo, these mechanisms may be reformed in the context of the expenditure rule established in late 2016 (see Institution 1). Such reforms will be necessary to avoid discretionary spending, and especially capital expenditure, carrying the bulk of the ongoing fiscal consolidation efforts.

Figure 6. Public Capital Stock per Capita: Cross-Country Comparisons (2015)



Source: WEO and staff estimates based on official data.

Figure 7. Brazil: Non-Financial Public Sector Balance and Gross Debt (% of GDP)

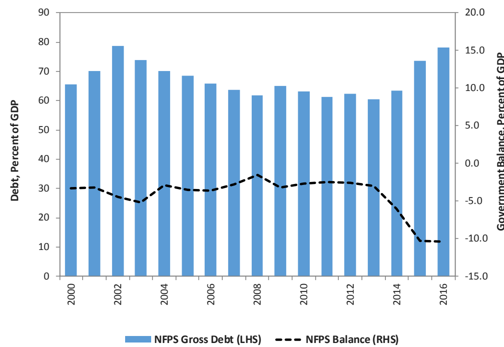
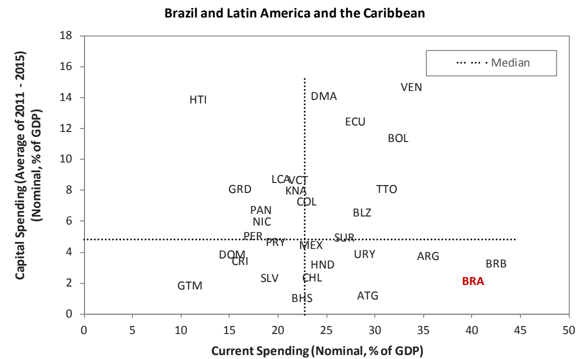


Figure 8. LAC Region: Current vs Capital Spending (average of last 5 years)



Source: WEO and staff estimates based on official data.

B. Composition of Public Sector Investment

6. In 2015, 22% of capital spending funded by the federal government focused on economic infrastructure, a limited share relative to other emerging countries. In Brazil, data on the composition of capital spending by function executed by each level of general government is unavailable. However, a breakdown by function is possible for capital spending funded by the federal government (Figure 9). This includes direct capital expenditure, as well as transfers to subnational governments for capital spending and capital injections to state-owned enterprises (SOEs). Although comparability with other emerging countries is limited, economic infrastructure in Brazil represents a relatively small share of total capital spending compared to EME countries (Figure 10). The importance of direct SOE investment and the growing use of concessions for the construction of economic infrastructure (especially in energy and transportation) could in part account for this.

Figure 9. Brazil: Capital Spending Funded by the Federal government per Function
(2015, %)

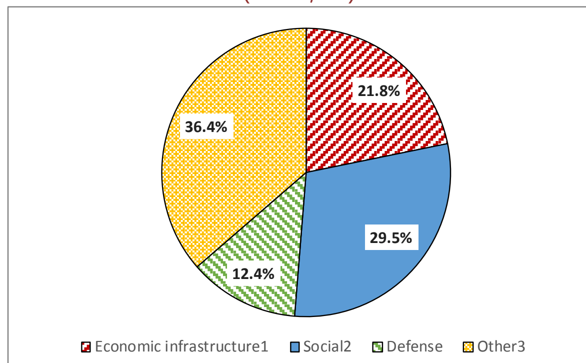
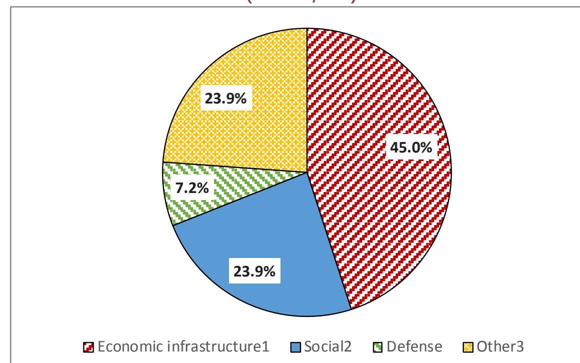


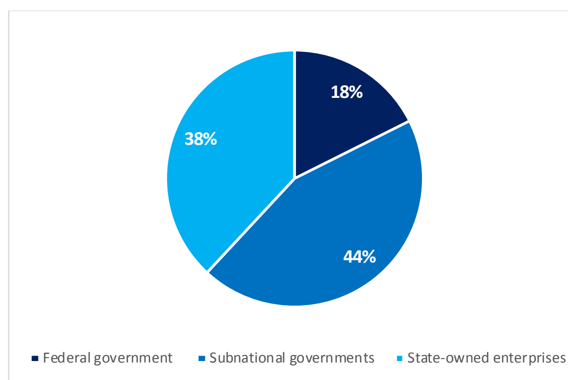
Figure 10. EME: Capital Spending Executed by the General Government per Function
(2015, %)



Source: Staff estimates based on official data. Note: 1/ Economic infrastructure includes public investment for transportation infrastructure, energy and industry, among others. 2/ Social infrastructure comprises public investment in education, health, housing, social protection and recreation and culture. 3/ The « Other » category comprises public investment for general public services, safety and public order and the environment.

7. **Though subnational governments and state-owned enterprises (SOEs) execute most public sector investment in Brazil, the federal government is an important source of funding for these investments.** Public sector investment is the sum of general government investment and investment carried out by SOEs. Over the 2012-2016 period, SOE capital investment accounted for about 1.6% of GDP and 38% of public sector investment (Figure 11). The largest part was carried out by Petrobras and Eletrobras. States and municipalities executed 44% of public sector investment, with less than 20% of the total by the federal government. The share of public sector investment directly executed by the federal government is limited, however it is an important source of funding for other public investment. The federal government has funded 17% of subnational investment through capital transfers over 2012-2016, while SOEs have received capital injections, amounting to about 4% of their investment over the same period.

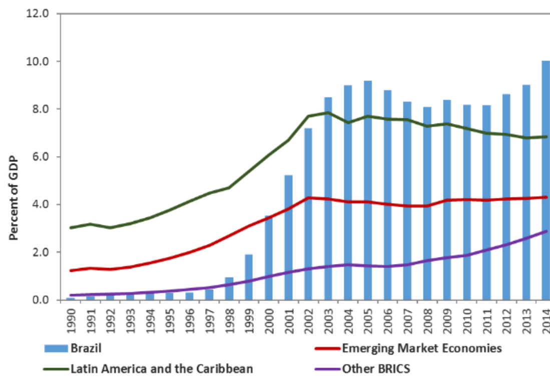
Figure 11. Brazil: Public Sector Investment Execution: (% by level of government)



Source: Staff estimates based on official data. Note: Average over the 2012-2016 period. Federal government includes extra-budgetary funds and the Minha Casa Minha Vida housing program. Data is on a commitment basis.

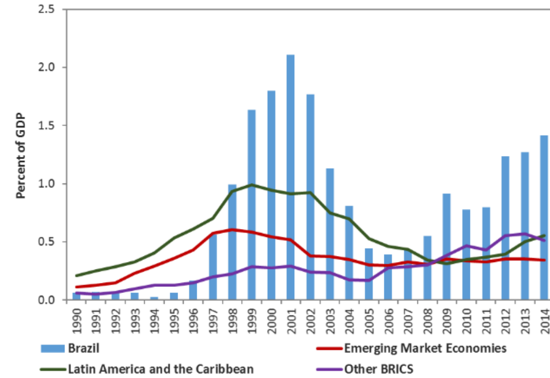
8. Brazil's recourse to public-private partnerships (PPP)/concessions[4] has significantly increased since the early 2000s, leading to a larger stock of projects than EME and LAC. In 2014, the current capital stock from PPP/concession projects has reached more than 10 percent of GDP, more than three times the average of other BRICS. It has been progressively rising, especially between 1999 and 2003, and in more recent years because of the Olympics (Figure 12). In 2014, the annual amount of PPP investments was almost equivalent to the total for general government investment (Figure 13). This is expected to rise in future years, as the fiscal space for general government investment remains slim.

Figure 12. Public-Private Partnerships Capital Stock (% of GDP)



Source: Staff estimates based on official data.

Figure 13. Annual PPP investments (% of GDP)



Source: Staff estimates based on official data.

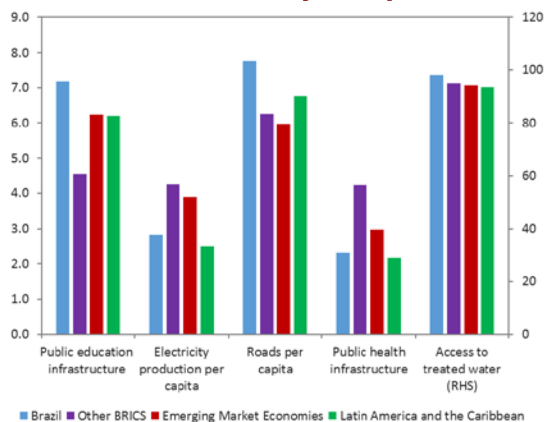
[4] In this report, the term *public-private partnership* is used to include concessions, in which users pay for the service, as well as projects for which the government pays; in Brazil, the term is usually used to refer more narrowly to the second type of projects only.

II. EFFICIENCY AND IMPACT OF PUBLIC INVESTMENT

9. Access and quality of infrastructure in Brazil shows a relatively mixed picture. Brazil fares well on access to basic infrastructure when compared with the regional average, while its results are more mixed relative to other BRICS or EME (Figure 14). Brazil fares better than the EME and other BRICS averages in terms of public education infrastructure but lower in terms of public health. This picture does not capture the differences between the urban and relatively wealthier areas, which are often better equipped and the rural and poorer regions.

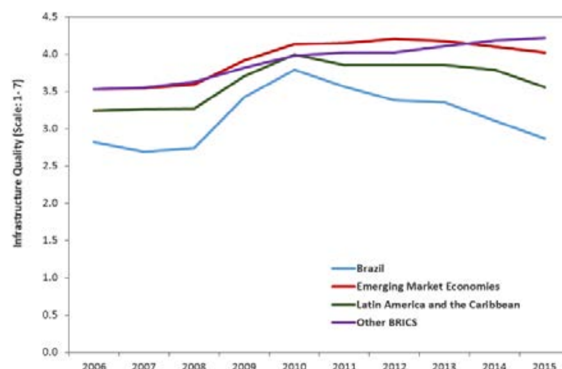
10. Brazil, however, lags behind comparators in terms of infrastructure quality, as revealed by a selection of World Development Indicators (WDI). In terms of kms of roads per capita, Brazil is above the LAC and EME average, however it has one of the lowest share of paved roads in the world both in absolute terms and relative to GDP per capita. WDI reveals that only 13% of the total road network was paved in 2010 compared with 53% in India and 61% in China. The efficiency of the power network is also below the average for other BRICS.[5]

Figure 14. Measures of Infrastructure Access: Cross-country Comparisons[6]



Source: World Bank World Development Indicators.

Figure 15. Perceived Infrastructure Quality: Cross-Country Comparisons (2006-2015)



Source: World Economic Forum

11. Infrastructure quality in Brazil is perceived overall as significantly lower than the EME and LAC averages (Figure 15).[7] This perception has been deteriorating since the beginning of the

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[5] For more information on the electricity sector infrastructure in Brazil see: IMF Working Paper, 2016 Cerra et al., *Highways to Heaven: Infrastructure Determinants and Trends in Latin America and the Caribbean*, WP/2016/185. Also, see IMF Working Paper, 2015 *Filling the Gap: Infrastructure Investment in Brazil*, by Garcia-Escribano et al.

[6] Left scale: public education infrastructure is measured as secondary teachers per 1,000 people (2013, WDI); electricity production per capita as thousands of kWh per person (2013, OECD); roads per capita as km per 1,000 people (2013, World Road Statistics); and public health infrastructure as hospital beds per 1,000 people (2012, WDI). Right scale: access to treated water is measured as the percentage of the population which has access (2015, WDI).

[7] This data is derived from an international survey of perceptions of infrastructure quality conducted by the World Economic Forum.

decade, and the gap relative to other BRICS, EME and LAC has been widening. This is consistent with the fact that these other countries have on average invested more in upgrading and maintaining their capital stock than Brazil has been able to.

12. IMF analysis indicates that there is significant room for improving the efficiency of public investment in Brazil. Taking the measures of infrastructure output—infrastructure access and quality— and mapping them against the public capital stock per capital shows an investment efficiency frontier (Figure 16). PIE-X is the hybrid indicator which combines physical and survey-based quality indicators grading countries on a scale from 0 to 1. A country with a score of 1 is considered to have reached the efficiency frontier, meaning it is the best performing country in terms of access and quality of its infrastructure, given its level of public capital stock per capita. The distance of a country's score to 1 is called the investment efficiency gap. PIE-X reaches 0.61 in Brazil, below the average scores of 0.71 for LAC countries and 0.73 for EME (Figure 17). Brazil has an efficiency gap of 39%, meaning that at least one country gets 39 percent more benefit from the same amount of spending. Brazil's efficiency gap is wider, by at least 10 percentage points, than the averages for EME (27%) and LAC (29%).

Figure 16. Efficiency Frontier
(hybrid indicator)

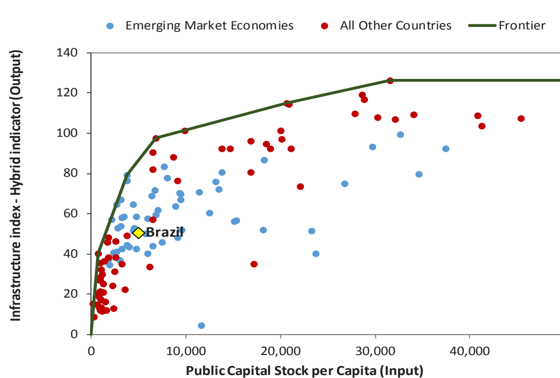
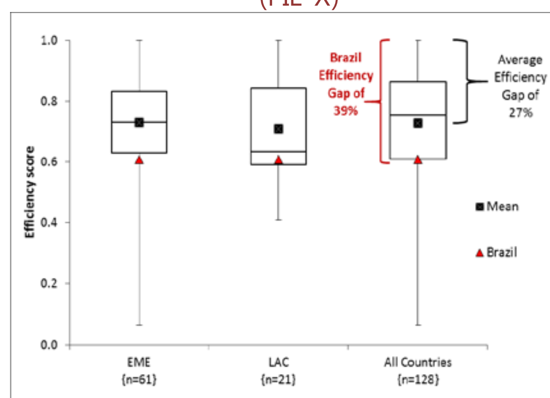


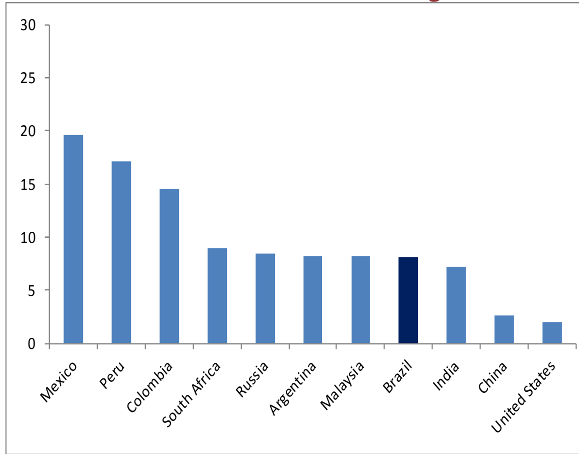
Figure 17. Efficiency Indicator
(PIE-X)



Source: IMF staff estimates.

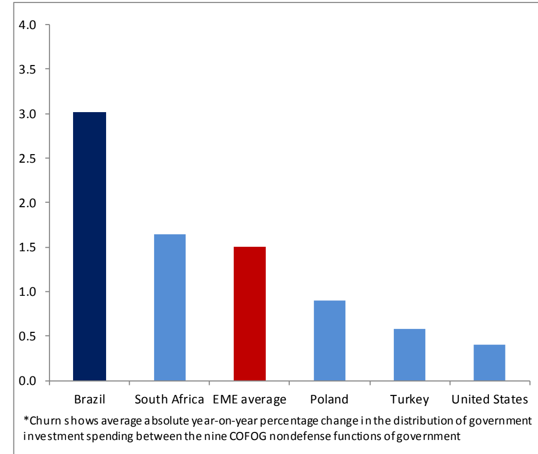
13. Relative to other EME and neighboring countries, Brazil fares average on other measures of public investment performance. The volatility of investment has remained limited, much lower than Mexico, on par with Argentina or Malaysia, but higher than China or the United States (Figure 18). However, churn, that is the volatility of the sectoral allocation of investment, has been significantly above the EME average (Figure 19). According to the 2016 Transparency International Corruption Perception Survey, which rates and ranks countries from the least to the most corrupt, Brazil ranks 79th (out of 176 countries). Brazil ranked 70th ten years ago, indicating a worsening in the perception of corruption relative to other countries and its own historical position. In 2016, Brazil's score (40) on the transparency corruption index was close to the LAC average (41) and below the global average (43) (Figure 20).

Figure 18. Volatility of the Sectoral Allocation of Investment (average 2010-13)



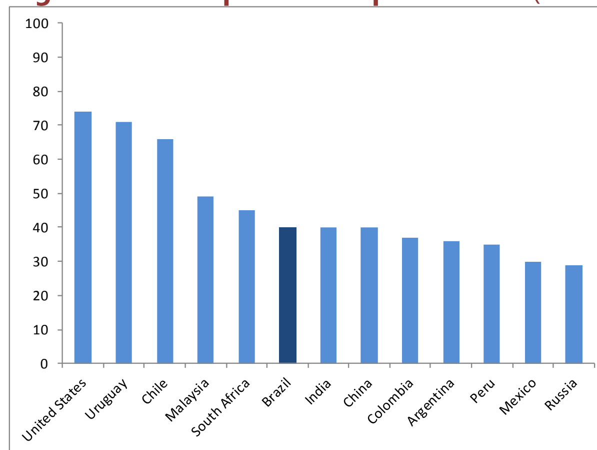
Source: IMF staff estimates.

Figure 19. Churn (average 2010-13)



Source: IMF staff estimates.

Figure 20. Corruption Perception Score (2016)



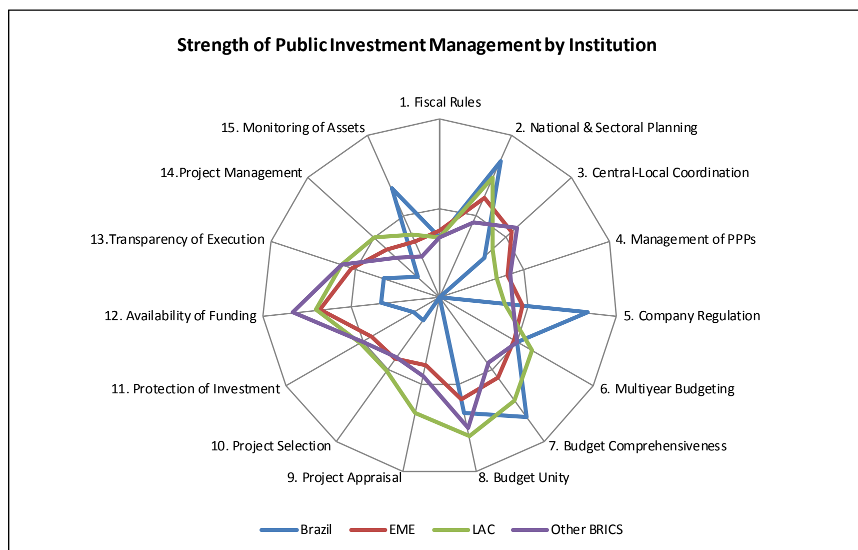
Source: Transparency International. Note: A higher score indicates a lower level of corruption. The countries with the highest score are Denmark and New Zealand in 2016 (90). The USA ranks 18th, and Russia ranks 131st out of 176 countries.

III. PUBLIC INVESTMENT MANAGEMENT INSTITUTIONS

A. Overview Assessment

14. This section evaluates the fifteen PIM institutions in terms of their strength and effectiveness. The summary results are presented in Figure 21. The institutions are divided into three phases of the PIM cycle: (i) planning of public investment; (ii) the allocation of resources to the right sectors and projects and (iii) the implementation of investment projects.

Figure 21. Strength of Public Investment Management by Institution



Source: IMF staff estimates.

15. The assessment evaluates the strength of the institutions, as well as their effectiveness using the methodology set out in Box 1.

Box 1. Public Investment Management Assessment Methodology

For the purpose of the assessment of public investment management in Section III, two dimensions were assessed for each institution:

<u>*Institutional strength:*</u> Institutional strength assesses the design of the processes, laws, systems, and managerial tools implemented from a design point of view. It is based on the questionnaire presented in the IMF Board Paper, *Making Public Investment More Efficient*. This questionnaire comprises of 15 institutions each with three indicators. For each indicator, three possible scores are set (low, medium, and high). The scoring of the three indicators per institution are aggregated using simple averaging. The following color code was used and scores for the institution were assigned according to the following principles:

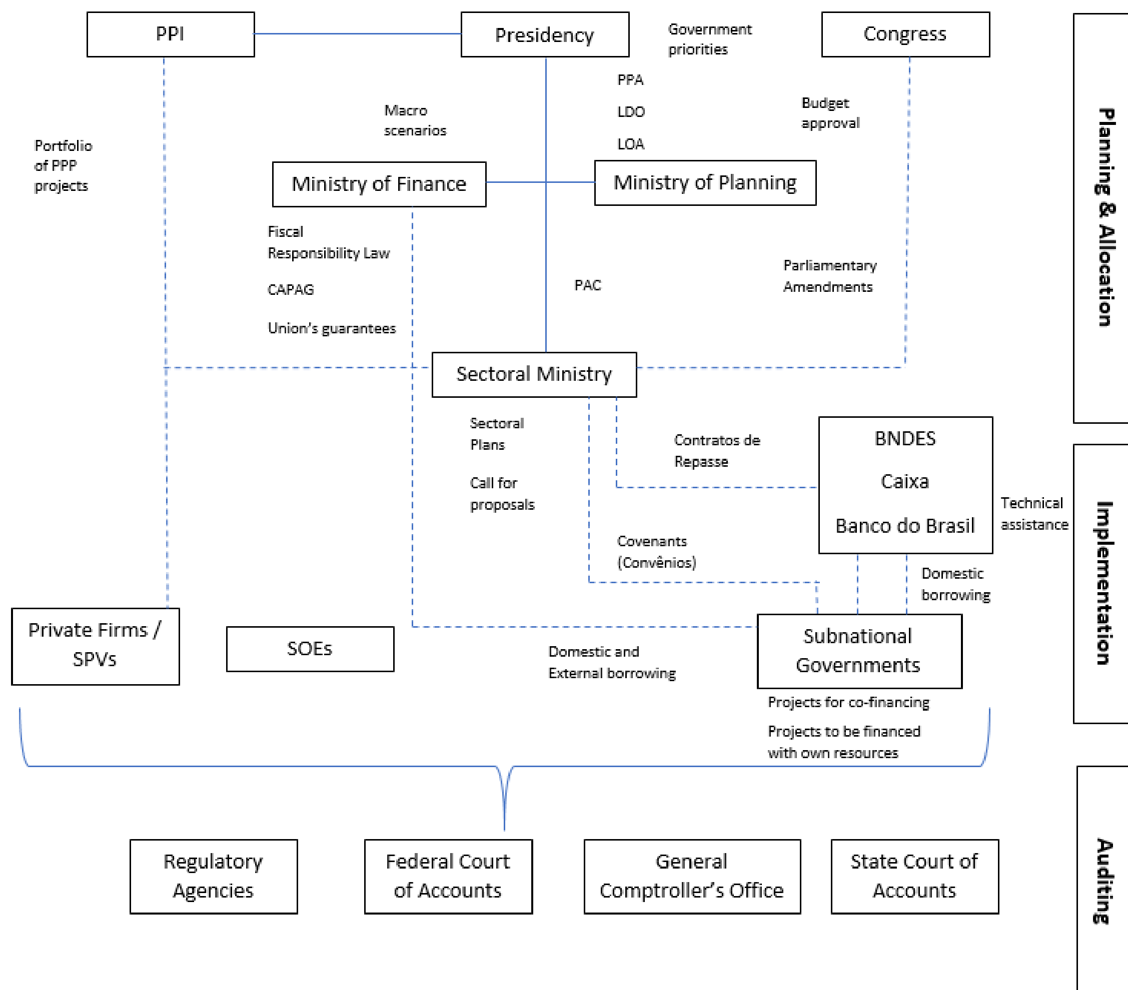
	High	Medium	Low
Strength of the institution	(green)	(yellow)	(red)

Effectiveness: The effectiveness assesses how well the institution is implemented in practice and whether it achieved the envisaged results. It was assessed qualitatively, for each institution as a whole, based on evidence (e.g., numerical, reviews and assessment of (international) organizations and audit reports). The following color code was used:

	High	Medium	Low
Effectiveness of the institution			

16. **In conducting this assessment, it was important to understand the Brazilian context, the Brazilian public investment management system is characterized by a large number of players for financing, executing and controlling public investment.** Figure 22 provides detailed overview of the key players and their roles in the PIM system, including the federal government, subnational governments, SOEs, public banks, concessionaires and extra-budgetary funds. This fragmentation is both vertical and horizontal and leads to a lack of uniform practices and approaches.

Figure 22. Role of Key Institutional Players in Public Investment Planning, Implementation and Auditing



Source: IMF Mission

B. Planning Sustainable Levels of Public Investment

1. Fiscal Principles or Rules *(Institutional Strength — Medium, Effectiveness — Low, Reform Priority — High)*

17. The 2000 Fiscal Responsibility Law (FRL) and Constitutional Amendment No.95 (EC95), which established a new expenditure rule, form the backbone of Brazil's fiscal framework. Fiscal policy is guided by a quantitative target for the primary balance of the non-financial public sector.[8] As required by the FRL, this is target is set out in the Budget Guidelines Law (LDO) for the budget year and two forward years. The primary balance target is now complemented by a constitutional fiscal rule on federal primary expenditure, established by EC95 in December 2016, which essentially freezes real primary spending at its 2016 level for the next twenty years. The scope of both targets includes capital expenditure, and there is no specific permanent provision aimed at protecting capital spending.[9]

18. In addition to these two provisions, there are a set of rules limiting the accumulation of government liabilities. According to the Brazilian Golden Rule credit operations cannot exceed projected capital spending, (article 167 of the Constitution and art 12 of the FRL).[10] Exceptions include supplementary or special credits, for example for natural disasters. Article 30 of the FRL mandates that the President propose to the Senate debt limits for federal, state, and municipal governments. Article 31 establishes an automatic adjustment mechanism to bring excessive debt back within the limit within three years. The Senate has established a debt limit for the states and for municipalities (see Institution 3); however, it has not in practice set a limit for the federal government. The LDO provides projections of net debt for the budget year and two forward years, but they do not constitute binding targets. Senate Resolution No. 48 (2007) caps the stock of guarantees by the federal government at 60% of net current revenue.

19. The fall in revenues due to the recent recession and large and rising mandatory spending has led to a ramp-up in debt and to severe cuts in investment spending. The most severe recession since the early 1990s caused a drop in government revenue, while expenditure continued to grow (Table 3). As a result, gross debt has risen by nearly a third in only three years. The fiscal framework, which is still very short-term oriented, has been unable to contain this ramp-up. The fast-changing macro-fiscal environment over the period led to delays in the adoption of the LDOs and to several in-year revisions of the primary target, which has enabled the government to keep to

[8] Excluding Petrobras and Eletrobras.

[9] Before 2015, investment within the Program for the Acceleration of Growth (PAC) was de facto protected from sequestration. Capital expenditure under PAC was counted as primary expenditure, but it could be deducted from the primary balance if the target set in the LDO was complied with. This protection, which was set annually in the LDO, was dropped in 2015 and subsequent years.

[10] The rule applies to the cash concept of general government receipts and expenses. It states credit operations cannot exceed capital spending. Credit operations comprises of receipts from debt refinancing operations and from new debt issuances. Capital spending comprises of expenses for investment (including financial investments) and debt refinancing operations.

the target. To date the golden rule has been complied with. The TCU has an important and clear constitutional mandate to assess compliance with fiscal rules including the new expenditure rule.

Table 3. Fiscal Developments in Brazil 2013 – 2017 (general government, percent of GDP)

	2013	2014	2015	2016	2017
Revenue	34.5	32.5	28.0	30.2	29.4
Expenditure	37.4	37.8	38.3	39.3	38.6
incl. capital expenditure	*2.2*	*2.3*	*1.8*	*1.7*	*1.6*
Primary balance	1.7	-0.6	-1.9	-2.5	-2.5
Gross debt (NFPS)	60.2	62.3	72.5	78.3	83.4
Real GDP growth	3.0	0.5	-3.8	-3.6	0.7

Source: World Economic Outlook (October 2017). NFPS refers to non-financial public sector. 2017 data is IMF estimates.

20. The adoption of the new expenditure rule represents a significant shift to a more medium-term perspective. The rule is binding from the fiscal year 2018. This renewed commitment to fiscal discipline, however may be hindered by the rigidity of expenditure and the need for structural reforms. Mandatory spending and constitutional indexation mechanisms, which have kept expenditure on an upward trend, do not leave much fiscal space for discretionary expenditure, including public investment. As a result, capital expenditure has been top of the list for expenditure cuts, general government investment has been cut by more than 25% since 2013.

21. Reducing the rigidity of the budget and setting up medium-term frameworks is important to ensure that some fiscal space can be allocated to investment in the near future, and should be a high priority. The social security reform is one of the key structural reforms that could curb the growth of current expenditure and free up fiscal space in the medium-term. This reform will however not be sufficient in ensuring compliance with the expenditure rule – a wide review of all mandatory expenditure, indexation mechanisms and tax expenditures would be helpful in identifying low-hanging fruit for reform. Developing a medium-term fiscal strategy and medium-term fiscal and budget frameworks could also support the implementation of the rule, by providing a more forward-looking strategic approach to decision-making on fiscal policy priorities and objectives. These tools can also help support allocation of fiscal space to investments (See institution 6). Finally, international experience shows that medium-term expenditure rules are more effective in ensuring fiscal sustainability when combined with a debt anchor, especially when expenditure rules do not cover all public spending, as is the case in Brazil.

2. National and Sectoral Planning *(Institutional Strength — High, Effectiveness — Low, Reform Priority — High)*

22. A large number of national and sectoral strategies dealing with public investment coexist and they contain varied information on costs and performance indicators.

- **National programs for public investment** include large investment initiatives such as the PAC (see Box 2 for more details). Information on cost estimates for the construction phase of major investment projects can be found on the program websites, as well as aggregate costs per sector. Performance targets focus on outputs (e.g. kilometers of road or railway, number of hospitals built) rather than on outcomes (e.g. reduction in poverty rates or increasing life expectancy). An elaborate reporting process exists for PAC projects, with biannual updates to Congress on the execution of the program and on its performance targets.

- **The *Plano Pluriannual* (PPA)**, through its programmatic approach, provides an overview of key strategic areas for public investment. However, the PPA is a four-year plan for all public policies of the government rather than a pure public investment strategy. Still, it provides aggregate planned capital expenditure per program, detailed information on the costs and execution of major investment projects, as well as some associated output targets and realizations (see Institution 6).

- **Sectoral planning documents** are available for many key sectors such as energy, transport and logistics, health, education or sanitation. They provide a detailed view of the investment needs, but the aggregate costs of these strategies are usually not clearly communicated. They often cover a longer timeframe than the PPA or the PAC. For example, the National Energy Plan covers 25 years and the National Plan for Basic Sanitation is for 20 years. The most sophisticated sectoral planning instruments have been produced by specific agencies outside of the spending ministries, such as in the energy (*Empresa de Pesquisa Energética*, EPE) and transportation sectors (*Empresa de Planejamento e Logistica*, EPL), the latter placed under the authority of the Presidency and the SPPI. The Ten-Year Plan for Energy Expansion (PDE) and the soon-to-be-published National Plan for Logistical Integration (PNLI) provide detailed projections and mapping of energy and transportation expansion needs for the next 10 (PDE) and 20 (PNLI) years. The 10-year National Plan for Education and the 4-year National Health Plan also contain elements on social infrastructure needs. All of these sectoral planning documents are mostly output-oriented, with a few exceptions (sanitation, education).

Box 2. Timeline of Major Public Investment Programs in Brazil

This box provides a timeline and a brief description of the major public investment programs in Brazil over the last two decades.

1996-2003: "Brazil in Action, Advance Brazil" (*Brasil em Ação, Avança Brasil)* programs sought to reduce the execution time of priority investments, particularly in the transport sector. The government scaled up the initial *Brasil em Ação* program and expanded the number of projects, creating the *Avança Brasil* program.

2005-2007: Pilot Project of Investment (*Projeto Piloto de Investimento* or PPI) had a portfolio of R$11.6 billion or 0.15% of GDP. Its objectives were to attract the private sector and to give visibility to governmental activities.

2007-today: Program of Growth Acceleration (Programa de Aceleração do Crescimento or PAC), was an expansion of PPI. PAC envisaged investment activities in several sectors including highways, railways, energy, airports, urban transportation, telecommunications, and urban development (sanitation and housing). In its first phase (2007-2010), US$ 150 billion was allocated to the program, while its second phase (2011-2014) had commitments of US$ 500 billion. Initially, PAC provided greater oversight and a clearer prioritization of sectors, however, over time more sectors were added and the implementation of projects became more decentralized. In the second phase, more than two- thirds of projects were executed by subnational governments. The selection and screening of projects was not technically driven and projects seldom underwent substantive economic evaluation. This limited the effectiveness of streamlined funding arrangements and stronger monitoring during the implementation phase. Despite the exemptions and benefits derived from participation in this program, the project execution rate was low between 2007-2015, only 37 percent of projects were completed (TCU 138 Opinion). Due to the recession, the third phase (2015-2018) has seen its scope gradually reduced. The initially funding for PAC projects in the 2017 budget has been significantly decreased from R$ 37bn to R$ 19bn.

2013-2016: Program of Investment in Logistic Infrastructure (*Programa de Investimentos em Logística* or PIL), was established as a large PPP and concession program. It envisaged the construction and operation of 7,500 km of roads, 10,000 km of railways, and 159 ports totaling R$ 240 billion. The PIL sought to improve the review and the pipeline of potential projects; to apply more arduous appraisal standards; and to remove bottlenecks that prevented better outcomes from investment in the past. A second phase was launched in 2015.

2016-To date: Investment Partnership Program (*Programa de Parcerias Privadas* or PPI), was established in 2016 under the Office of the Presidency, with several PIL projects rolled into this program. This program seeks to attract private investment and to streamline and centralize the selection of concession projects.

Source: Mission staff

23. **The effectiveness of these strategies for planning has been undermined by weak prioritization, unrealistic costing and multiple congressional amendments.** The large and intricate web of strategies and plans described above has been unable to provide clear strategic guidance for public investment. This has been especially clear in the current context of shrinking fiscal space, with too much to do and too little money. The PAC, which effectively targeted major economic infrastructure projects when it was created, is today clogged by thousands of small-scale projects. Although it has been revised and streamlined in recent years, and it is monitored extensively, the PPA's use in decision-making is limited, as it is still too detailed and it does not rely on a realistic macro-fiscal scenario or on clear costing guidelines (see Institution 6). Parliamentary amendments, which may fund capital projects which fall outside of the scope of any existing strategy or plan, have also contributed to deepen the gap between planned and actual investment for ministries which carry large portfolios of local-level projects (e.g. Ministry of National Integration, Ministry of Cities).

24. In recent years, the Casa Civil has tried to better prioritize investments. The Presidency has defined a set of "priority projects" of national interest for which it provides support, guides decisions and monitors closely. This includes seven infrastructure projects or initiatives, the PPI, and the Broadband Development Program. In addition, under the current constrained fiscal environment, a list of PAC projects which are close to completion have been prioritized for funding by a committee comprising the Presidency, the MPDG and the MOF.

25. However, in order to stabilize investment priorities over time, there is still a need for a clear national investment strategy and this is a high priority. This would outline key priorities for the medium- and long-term, in line with sectoral planning instruments. The "long-term strategic development plan" that the *Casa Civil* is currently considering in a draft law on the general governance of the Union, would set long-term goals and targets for the country, and could play such a role. This document could be an anchor for a new prioritized and affordable pipeline of major projects, relying on realistic costing and transparent selection processes.

3. Central-Local Coordination *(Institutional Strength: Medium, Effectiveness: Low, Reform Priority: High)*

26. The federal government oversees subnational borrowing operations and many capital transfers, but local investment is largely not coordinated with federal priorities. The federal government has an important role in monitoring and supporting the funding of subnational investment. A Senate resolution[11] sets clear legal limits on subnational governments' borrowing: net debt to net current revenue ratios are capped for states (200%) and municipalities (120%). These ratios are regularly monitored by the Treasury. Furthermore, credit operations cannot exceed capital spending according to the Golden Rule (see Institution 1). To borrow, subnationals require a formal authorization from the MOF. On top of this monitoring, the federal government supports local investment financially, as subnational governments benefit from transfers from the federal budget, some of which may be earmarked for investment projects under specific programs. On average over the last five years, these transfers funded 17% of investment projects executed locally and 28% of the investment funded directly or indirectly (transfers, capital injections) by the federal government (Table 4). Though the amount of these transfers is available in the budget, capital budgets of local governments are not discussed by the central government, and there is no consolidated view of total planned investment by states and municipalities.

[11] Resolution No. 40 (2001) of the Federal Senate, in application of Article 30 of the FRL (2000).

Table 4. Capital Transfers from the Federal Government to Subnational Governments

	2012	2013	2014	2015	2016
Capital transfers (bn R$)	20.7	15.2	17.5	13.9	18.8
Share in subnational investment	20%	14%	15%	15%	22%
Share in investment funded by the federal government[12]	40%	24%	23%	26%	29%

Source: MOPG and staff estimates.

27. The coordination between federal and local investment strategies suffers from the fragmentation of transfers, low local capacity and federal micro-management. Discretionary capital transfers most often take the shape of *convênios*[13], grant agreements on a project-by-project basis, usually monitored from beginning to end by the public bank Caixa Economica Federal (see Box 3). These agreements between spending ministries and subnational governments may either be concluded after a call for local project proposals under a specific initiative, or be already planned for explicitly in the budget or in the PAC. Multiple *convênios* can sometimes be concluded for a single investment project. *Convênios* can also be the result of congressional amendments and can significantly impend the investment plans set by spending ministries[14] (also see Box 6). This fragmented system is difficult for spending ministries to manage, they may end up supporting portfolios of thousands of small-sized projects. Subnational governments may not have sufficient capacity to properly prepare and execute projects, as project preparation, appraisal and selection and management are often weak at the subnational level.

28. Finding a better balance between federal oversight and fiscal devolution is a high priority. Currently, ministries are involved in selecting minor projects in many states and municipalities for example the Ministry of Health has over 38,000 projects. Ideally, spending ministries should avoid such involvement with individual micro-level projects and focus on programs or initiatives, with devolution of the allocation of resources to the local level. However, weak project management capacity in subnational governments has been a hurdle: attempts at more devolved models in the recent past have failed to deliver satisfactory outcomes.

29. A gradual adoption of program-based grants could avoid the need for central government involvement in capital project execution and monitoring. However, to be successful, new reform proposals should acknowledge the significant need for capacity building at the local level, and the fact that some subnational governments, especially in urban and wealthier areas, may be better prepared than others for greater devolution of responsibilities and it may require a more risk based approach.

[12] Investment funded by the federal government is defined here as the sum of direct capital expenditure executed by the federal government, transfers to subnational governments and financial inversions (capital injections to SOEs for investment purposes). This corresponds to categories GND4 and GND5 in the Brazilian budget classification.

[13] Other types of transfers include voluntary transfers, through which a ministry may finance directly activities executed by subnational governments; and partnership agreements, notably with civil society organizations, used to speed up the execution of projects, notably within PAC.

[14] This is especially the case when congressional amendments cannot be sequestered, as is the case when they are related to health and education compulsory minimums.

Box 3. Capital Transfers to Subnational Governments in Brazil

Brazil is one of the countries in Latin America with the most decentralized execution of public investment. Subnational capital spending is financed from the states and municipalities' own resources, borrowing and federal government transfers both automatic and discretionary. Federal discretionary grants finance a wide set of activities at the subnational level and uses a variety of design, management and monitoring arrangements. Each ministry uses its own methodologies for assigning grants and monitoring their execution.

In the current framework, there are three types of discretionary transfers. *Voluntary transfers* through which a federal agency (usually a ministry) funds projects or activities by states and municipalities. The second mode is the *grant* or *covenant*, which the Federal Government uses to transfer funds and monitor the entire cycle of the program or activity financed through the grant. In general, this role has been fulfilled by *Caixa Econômica Federal* (CEF). Almost all capital transfers currently use this modality. The third is the *partnership agreement* initially restricted to civil society organizations. This instrument has been used for PAC projects to speed up the release of funds and the progress of works previously selected.

All activities financed by voluntary transfers are explicitly identified and allocated in the Federal budget. Each ministry distributes resources through their decentralized programs. Such programs are generally designed to solve externalities, diseconomies of scale and technical capacity deficiencies. However, during the budget process, legislators can introduce amendments that, if approved, change the resource allocation proposed by the Executive. Once the budget is approved by Congress and sanctioned by the President, each ministry chooses the most relevant programs and annually publishes a call for states or municipalities to submit proposals. Alternatively, a ministry can identify specific local needs and provide resources for the development of a program in the municipalities of a region or a group of states that has been prioritized.

The ministry that grants the transfers is responsible for guiding, monitoring, and evaluating the implementation of the programs that it finances. The granting agency is also in charge of signing agreements and issuing norms and guidelines for the release of financial resources. These responsibilities even include verifying that the procurement legislation is applied adequately. Given the wide geographical spread of the grant agreements, monitoring, controlling and certifying compliance are not trivial logistical issues. For the beneficiaries of grant agreements, although they receive technical assistance from the ministries and the CEF, preparing the proposals and fulfilling all obligations during the execution of the project, especially for those of smaller and low technical capacity, can be very challenging.

Source: Mission Staff

4. Public-Private Partnerships *(Institutional Strength — Low, Effectiveness — Medium, Reform Priority — Medium)*

30. Despite an elaborate legal framework, there is neither a published strategy for PPPs and concessions, nor criteria for selection of projects, nor are associated risks recorded. In this report, following international practice, the term public-private partnership is used to include concessions, in which users pay for the service, as well as projects for which the government pays. In Brazil, the term is usually used more narrowly to refer to the second type of projects only. Concessions and other types of PPPs are governed by two separate laws[15], which set the conditions under which these arrangements may be conducted. Concessions are the main modality of partnership with the private sector at the federal level. Despite the current priority given to this investment track, to circumvent the lack of fiscal space, there is no published strategic document on concessions which would provide a sense of the government's medium-term plans, including priority

[15] PPPs: Law No. 11709 (2005); Concessions: Law No. 8987 (1995).

sectors and projected outputs and outcomes. There is no list of standard criteria for entering into concession arrangements.

31. Value-for-money analysis does not appear to be systematic across sectors, and there is neither a standard published methodology nor a dedicated unit for such analysis.[16] There is transparency on individual concession projects, as contracts are usually publicly available on the websites of regulatory agencies. However, there is no consolidated view of existing and planned concession projects in Brazil. Finally, though total federal government payments for PPPs other than concessions are limited to 1% of net current revenue (Article 22 of the PPP law), there is no similar limit on concessions. Contingent liabilities associated with federal concession projects, explicit or implicit, are not limited and are not analyzed or reported in a consolidated way.

32. Recent reforms have centralized the selection of major concessions and are improving the effectiveness of the project cycle. The launch of the PPI and the placement of its secretariat (SPPI) within the Presidency are attempts to reinforce coordination and centralize capacity for PPPs and concession project preparation. PPI is among the "priority projects" *Casa Civil* oversees. It acts as a coordinator of the different players involved in project preparation and appraisal, including line ministries, the MPDG and agencies such as the EPL. It also helps expedite tender preparation and environmental licensing, which have been significant bottlenecks in recent years. PPI has become an identified source of information for investors, both domestic and foreign, to obtain details on how to bid for projects. Overall, the SPPI has been relatively effective in delivering new projects. According to the SPPI, a dozen major concession infrastructure projects have been signed. There is only limited fiscal space for the launch of new publicly-funded investment projects, therefore the focus is on attracting private investment. After Board meetings, the SPPI publishes updated lists of "qualified" projects. However, the strategy and criteria for pre-selection of projects within the PPI scope have not been published yet, and many concessions, including unsolicited bids, still fall outside of the scope covered by the PPI initiative.

33. The publication of a strategy for PPPs and concessions and the consolidation of information on the existing portfolio and its associated fiscal risks are medium priorities. For the first time this year, the annex on fiscal risks attached to the LDO contains a section on risks associated with PPPs and concessions. Though it is an important first step, the section remains largely qualitative, especially on concessions. A list of the current portfolio of concessions at the federal level, as well as other types of PPPs at the subnational level, could reinforce transparency on risks associated with these arrangements. Indeed, even though concessions may not involve explicit contingent liabilities, concessions can lead to implicit contingent liabilities (and significant revenue losses) for the government. Potentially resulting in cases were the government could need to step in if the private concessionaire fails and may need to provide the service either temporarily or on a

[16] The PPP law does mention the concept of value-for-money in Article 10 which states: the technical study for a given project should "demonstrate the convenience and the opportunity of contracting, by identifying the reasons that justify the option for the form of public-private partnership".

permanent basis. The current practices for PPP/concession are discussed in Annex 4 and compared with good international practices.

5. Regulation of Infrastructure Companies *(Institutional Strength — High, Effectiveness — Low, Reform Priority — Medium)*

34. There is competition in most markets for economic infrastructure, and federal oversight of investment and financial performance of SOEs. Most markets for economic infrastructure are competitive in Brazil, with domestic and foreign competition. The share of the private sector can be significant – railways, ports and most toll roads are concessions run by the private sector. Telecom operators have been private since the privatization of the sector in the late 1990s. Foreign companies are present in some sectors, such as electricity generation and transmission, and even dominant in mobile telecommunications or urban mobility. SOEs are very important players in the infrastructure sector, especially Petrobras and Eletrobras (94% of total planned SOE investment for 2017). After being agreed by the Executive Boards, the investment budgets of all 133 federal non-dependent SOEs are sent to the government for review. These investment budgets are consolidated and approved by Parliament and published as part of the annual budget law. MPDG publishes a consolidated financial view of the SOE portfolio annually. Since late 2016, quarterly bulletins provide additional information on SOE's financial performance and execution of investment.

35. There are still barriers to effective infrastructure market access, and regulatory agencies in Brazil, which are not fully independent especially financially. Brazilian private companies and SOEs have a comparative advantage in understanding the complexity of bidding for infrastructure concessions. In effect, several markets are still often concentrated around large state-owned enterprises and their subsidiaries, such as Eletrobras in the electricity sector, or Brazilian private companies, such as in the sanitation sector, in which four Brazilian companies hold 80% of the market share. Activities and prices on these infrastructure markets are regulated by a number of formally independent federal agencies, such as ANEEL in the electricity sector, and the Independent Regulator for Land Transport (ANTT) in the highway sector and the Independent Regulator for Telecommunications (ANATEL) in the telecom sector.

36. In the energy and transportation sectors, the agencies act both as regulators for the sector and as authorities in charge of tendering and contracting concession projects. This may lead to conflicts of interest and sudden changes in regulatory practices. [17] Regulatory agencies have suffered from delays in the nomination process for board members and from budget sequestration, which may have hindered the implementation of their mandate. [18] Best international practices and guidelines recommend that objective, impartial and qualified agencies be guaranteed through role clarity, appropriate funding and independence of leadership.[19,]

[17] World Bank, *Benchmarking Regulatory Governance Practices in Brazil Against International Practices*, 2016.

[18] World Bank, *Competition-Related Regulatory Restrictions in Engineering Services in Brazil*, 2016.

[19] OECD, *The Governance of Regulators, Creating a Culture of Independence: Practical Guidance Against Undue Influence*, 2017.

37. Clarifying the role of regulatory agencies and strengthening their independence is a medium priority. A draft law approved by Senate in 2016 could contribute to improving the independence of agencies. The draft includes limitations on the duration of vacancies and a reform of the appointment process: appointments would still be ultimately decided by the President; possible choices would be restricted to options prepared by the Board based on a list of professional criteria. In line with OECD guidance on the independence of regulators, the budget of the agencies should be protected so that their resources remain as stable as possible. The separation of the regulation and contract management functions should be made clear to avoid potential conflicts of interest in the future.[20]

C. Allocating Investments to the Right Sectors and Projects

6. Multi-Year Budgeting *(Institutional Strength — Medium, Effectiveness — Low, Reform Priority — High)*

38. The 2016-2019 PPA comprises a detailed set of programs, projects and activities for each spending ministry. Projections of the total capital costs (Annex III) and projections of expenditures for the four years of the plan (Annex II) are included for each program, with projections for 2016 in the latter linked to the LOA for 2016. Budgeting is done on an annual basis, with expenditure ceilings for spending ministries provided only for the coming budget year. Full life-cycle costs, which includes operating costs and maintenance, for major projects are currently not published, neither in the PPA nor the annual budget process. The LDO 2018 foresees that the costs of the projects, considering the life cycle, will be included in the complementary information to LOA 2018. An annual monitoring report is prepared on PPA implementation and sent to Congress. The 2016 report included for each program the original four-year PPA projections, the original and revised LOA 2016 current and capital budget allocations, as well as the amount actually spent in 2016.

39. The effectiveness of multi-year planning for public investment is weakened by the lack of a rolling medium term budget process to translate projects in the PPA into budget allocations over time. The PPA is not framed within a realistic macro-fiscal scenario and does not actively guide the budget process since it is too detailed and project costs have not been based on clear costing guidelines. The four-year cost projections of projects in the PPA are not broken down by year, and they are not all updated. The monitoring report sent to Congress mentioned above does not include all projects (only those with expenditures during 2016) and it does not provide updated projections for the remainder of the PPA period (2017-2019). There is no mechanism (e.g. through project codes) to link measures in the budget to those in the PPA. Given that projects in the PPA have an expected lifetime of up to 20 years, focussing on a four-year segment does not indicate efficient investment planning. It results in spreading resources thinly across a large number of un-prioritised projects, and projects in the current PPA may not be found in the next one.

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[20] For further considerations on the effectiveness and independence of regulatory agencies, see World Bank, Raiser et al., *Back to Planning: How to Close Brazil's Infrastructure Gap in Times of Austerity*, 2017.

40. Planning and budgeting would be strengthened through the introduction of a rolling medium-term budget framework and this should be a high priority. The establishment of indicative medium-term budget ceilings[21] within a realistic medium-term fiscal framework would increase the predictability of resources to spending ministries and thereby improve the efficiency of investment planning. In addition, a rolling medium-term perspective would provide a mechanism for the incorporation of future recurrent costs associated with investment projects and provide a framework for the preparation of life-cycle project costs to facilitate the analysis of longer-term financial feasibility. Nonetheless, the introduction of a medium-term budget framework will be a substantial challenge and require significant capacity building across government and with Congress. Brazil has many of the components of medium term frameworks in place, and recent reports by the IMF have provided guidance on a step by step approach for fully implementing a medium term fiscal framework and moving to a medium-term budget framework.[22]

7. Budget Comprehensiveness *(Institutional Strength — High, Effectiveness — High, Reform Priority — Low)*

41. Significant capital spending is undertaken by extra-budgetary entities, but with legislative authorization and disclosure in budget documentation. In 2016, an estimated 66% of total federal-level public investment was executed collectively by SOEs or extra-budgetary funds. The LOA contains information on capital expenditures by all sources of federal-level funding, including expenditures by spending ministries and agencies from the federal government's main revenue fund (incorporating transfers to sub-national governments, extra-budgetary funds, SOEs (budgetary dependent and non-dependent) and external financing.[23,24,25] All such expenditures are shown by the relevant spending ministry, including capital financial injections to SOEs (referred to as financial inversions). Transactions on federal-level PPPs (including concessions) are shown by ministry and agency in Volume I of the LOA (e.g. revenue stream generated by concessions).[26]

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[21] Medium-term budget frameworks often include consolidated ceilings for each ministry (i.e. not broken down by economic items, including by current and capital). This practice of not breaking ceilings down *ex ante* gives greater flexibility for spending ministries to prepare their budgets according to the most efficient mix of inputs.

[22] For more information on implementing medium-term fiscal and budgetary frameworks see IMF, Curristine et al, *Supporting Implementation of the Expenditure Rule through PFM Reforms*, 2017 and IMF Report, *Developing A More Resilient Fiscal Framework* 2016.

[23] In line with the Constitution, the LOA comprises: (i) the Fiscal Budget, comprising revenues from taxation and expenditures comprising expenditures (current and capital) for all public administration, including the Executive, Legislature, and Judiciary; (ii) the Social Security Budget, including revenues and expenditures on pensions, social aid and social insurance; and (iii) the Investment Budget, which contains investment expenditures by non-budgetary dependent SOEs.

[24] The sources of external financing are included in the LOA under financial source 48 (in cash) and 49 (in goods or services).

[25] The most significant extra-budgetary fund is the *Fundo de Garantia do Tempo de Serviço*. (FGTS), which funds investment projects in urban infrastructure and low-income housing.

[26] Federal financing for the single non-concession PPP is provided through financial inversions to the PPP partner. These are captured in the LOA. The Federal government does not provide cash subsidies to concessionaires.

42. **Budget comprehensiveness could be enhanced through providing greater information on capital expenditures financed through non-budgetary sources**, **relative to other areas this is a low priority reform area.** Additional information, including a listing, with associated balances for, all extra-budgetary funds, as well as summarized financial information on all PPPs/concessions and SOEs could be provided in an annex to the LOA. In addition, a quantitative analysis of the PPPs/concessions and associated fiscal risks, including implicit contingent liabilities, could be provided in the relevant annex to the LDO (See institution 4).

8. Budget Unity *(Institutional Strength — Medium, Effectiveness — Medium, Reform Priority Medium)*

43. **Budgets for capital and current expenditures are prepared by a single ministry and presented in a single document**. The MPDG is responsible for managing the integrated budget process. The process for preparing budgets for current and capital spending at the spending ministry level is undertaken by a unit for planning and budgeting. Expenditures for both current and capital expenditures by ministry are shown in Volumes III, IV and V of the LOA. All budget tables include details by spending ministry and distinguish clearly between capital and current spending using a classification consistent with international standards. These expenditures are presented by spending ministry but not by program.

44. **While project-related current costs are included in the LOA, the expected future operational costs of projects are not**. Project-related non-capital (capitalised) costs associated with undertaking the projects are included in the LOA under GND (economic item class) 3. While the on-going operational and maintenance costs associated with capital investment projects are calculated for some projects, this is not systematic. For example, the project fiche used by some ministries for new projects does not require information on these costs. The information is not used in the budget preparation and is not included in the LOA, the PAC or the PPA.

45. **The efficiency of capital investments would be improved by a budget process that enabled future recurrent costs to be incorporated into the process**. Preparing budgets over a medium-term horizon, with indicative ceilings over the medium term, would enable spending ministries to undertake investment projects more efficiently, including calculating the on-going costs to operate and maintain the asset and ensuring the provision of these costs in the budget. In the absence of a medium-term framework, capital investment projects risk taking much longer to complete due to lack of consistent and predictable funding and/or poorly utilised due to insufficient provision for operation or maintenance.

9. Project Appraisal *(Institutional Strength — Low, Effectiveness — Low, Reform Priority — High)*

46. **Project appraisals for capital project proposals are not systematically undertaken or published**. There are no centralized procedures in place requiring spending ministries to appraise projects financially or economically as part of project preparation. There is no documentation on standard methodologies for cost-benefit analyses or value-for-money analyses in relation to deciding on funding modalities (e.g. between budgetary resources and PPPs/concessions). No central agency provides support to spending ministries for the appraisal of projects. While some spending ministries

do undertake some financial and/or economic analyses, this is not systematic. Cost estimates for project proposals are prepared on the basis of detailed norms based on unit costs. However, the under-estimation of project costs would suggest that these norms are not effective at estimating the true costs of projects.

47. In practice, there is little analysis of the economic or financial feasibility of capital projects as part of project preparation. The main type of project analysis that is undertaken is technical engineering (design) work and legal compliance (e.g. for potential PPI projects). Some ministries prepare options analyses and assess risks, particularly SOEs considering projects for potential private sector participation. However, this is not the usual practice of ministries, and there is little or no cost-benefit analysis carried out. There is a parallel track of preparation for projects which are prepared by spending ministries for budgetary funding and those which are considered to be of potential interest to the private sector. There is no value-for-money analysis undertaken which compares the relative value-of-money of different funding modalities to determine which provides the best value for the government.

48. In order to improve the outcome of public investment spending, there should be a greater focus on preparing good quality projects, this should be a high priority. Consistent audit report findings cite weaknesses in project preparation as a key factor in poor capital investment. Project appraisals are a key element in the project cycle to assess the economic and financial feasibility of the project and identify potential risks (see Box 4). Procedures and methodologies should be established for both costing and appraising project proposals, with the level of complexity required for the appraisals based on the size of the project. These should be accompanied by detailed guidelines and capacity building for central and spending ministry staff. In some countries, appraisals for spending ministries are carried out by staff from a central institution (e.g. Ministry of Planning) or an independent agency. In others, independent reviews of appraisals are carried out to assess the underlying assumptions and check for potential optimism bias which can be a common feature of project appraisals, particularly those prepared by the sponsoring spending ministry.

Box 4. Analytical Techniques Used in Project Appraisals

A variety of techniques to evaluate options is available. These appraisal techniques can be applied to a variety of forms of analysis. The main techniques used (most of which involve discounting in one form or another) are:

Net Present Value (NPV) Method: Revenues of a project are estimated, net of outgoings, and then are discounted and compared with the initial investment. The preferred option is that with the highest positive net present value.

Internal Rate of Return (IRR) Method: The IRR is the discount rate which, when applied to net revenues of a project sets them equal to the initial investment. The preferred option is that with the IRR greatest in excess of a specified rate of return.

Benefit-Cost Ratio: The benefit-cost ratio is the discounted net revenues divided by the initial investment. The preferred option is that with the ratio greatest in excess of 1. In any event, a project with benefit-cost ratio of less than 1 should normally not proceed.

Source: Guidelines for the Appraisal and Management of Capital Expenditure Proposals in the Public Sector, Ministry of Finance, Ireland.

10. Project Selection *(Institutional Strength — Low, Effectiveness — Low, Reform Priority — High)*

49. **There are no standardized criteria for selecting projects, neither for spending ministries to select projects for the pipeline of capital projects nor for the MPDG to select projects for inclusion in the annual budget**. In the form of the PAC, the government maintains a pipeline of approved major investment projects for inclusion in the annual budget. Each spending ministry has its own set of criteria for selection of major projects for approval for the pipeline but these are neither detailed nor published. The quality and comprehensiveness of these criteria varies across spending ministries. For some ministries with sector strategies, the criteria include alignment with their strategic priorities, as well as with national priorities, degree of complexity of the project and of project management (e.g. risks), and costs relative to likely resource availability.

50. **The process for selecting projects to be put forward for inclusion in the PAC pipeline and for putting forward for budget financing (non-PAC) is the responsibility of spending ministries.** The proposals for PAC inclusion are sent to the MPDG. The selection of major projects for inclusion in the PAC pipeline is made by the PAC Management Committee (CGPAC)[27] on the basis of project details provided by spending ministries and joint discussions. As noted in Box 2, PAC II expanded extensively the number of projects included in the pipeline and over the years this has resulted in a long wish list of projects. While this long list continues to exist on paper, given limited available resources, the budget for PAC has been reduced considerably and focuses on prioritizing projects which are near completion for inclusion in the budget. New projects (or increases in their

[27] CGPAC comprises senior management from MPDG (Secretariat of PAC, Federal Budget Secretariat and Secretariat of Planning and Strategic Investments), Casa Civil of the Presidency (Monitoring Section), and Ministry of Finance (National Treasury Secretariat and Secretariat for Economic Monitoring)

scope) can now only be added to the pipeline if a ministry identifies another project (or part of one) to remove. As discussed in Section B, PAC is now subject to sequestration.

51. The selection of potential PPI projects is taken by the Council of PPI on the basis of potential for attracting private sector interest.[28] For other concessions and for non-major (non-PAC) projects, the selection is made by the relevant spending ministry. The government does not systematically undertake a central review of major project appraisals before decisions are taken to include projects in the budget. Currently, projects are selected for funding in the LOA primarily on the basis of the level of project completion, in order to minimize the costs of interrupting the project and on political priorities. An example of selection criteria used in Australia is shown in Box 5.

Box 5. Selection Criteria used for Major Infrastructure Projects in Australia

The key selection criteria used for major infrastructure projects in Australia include:

- Form part of a set of coherent proposals for a long-term package of reforms (for example, demand management measures and governance arrangements) and investments, which are the direct result of thorough and evidence-based infrastructure planning processes and the resulting strategies - and which are clearly presented in that context;
- Support Infrastructure Australia's strategic priorities, including proposals which reflect the national strategies that have been developed by Infrastructure Australia;
- Clearly identifies and quantifies the problem and explains why solving that particular problem is being prioritized against other potential problems;
- Are a sophisticated package of both reform and investment initiatives, with a focus on reform initiatives. All capacity investment initiatives should demonstrate why making more efficient use of the existing network, for example through regulatory or pricing reform, is not a better solution; and
- Are backed by comprehensive and robust demand/price forecasting; capital and operating cost estimates, and economic cost-benefit analysis.

Source: Infrastructure Australia

52. The efficiency of project selection is undermined by the lack of a single and effective gate-keeper either for adding to the pipeline or for inclusion in the final budget. In practice, projects may be selected by the MPDG, by the PPI Council, or by Congress, in the form of Congressional amendments (see Box 6). Projects selected by Congress are not necessarily taken from the pipeline of ready-prepared and approved projects.

[28] The PPI Council comprises: The President of the Republic, the Minister Chief of General Secretariat, the Minister Chief of Staff of the President, the Minister of Finance, the Minister of Planning, Development and Management, Minister of Mining and Energy, Minister of Transportation, Ports and Civil Aviation, Minister of Environment, President of BNDES, President of Caixa Econômica Federal, and President of Banco do Brasil.

Box 6. The Impact of Congressional Amendments on Public Investment in Brazil

The Brazilian constitutional and legal framework enables the creation of reserved funding for congressional amendment. Constitutional amendment No.86 (2015) mandates that 1.2% of the net current revenue[29] of the Union shall be put aside every year for individual congressional amendments made to the budget bill – approximately 8 billion R$ in 2015. In recent years, the LDO has also put aside 0.8% of net current revenue for group amendments.

Congressional amendments introduced before budget approval create a gap between strategic investment planning by spending ministries and the eventual budget allocation. Approximately 10,000 amendments are proposed every year.,. Most of these amendments affect the capital budget by introducing new small-sized investment projects and modifying the planned allocation of resources. Amendments are not screened for coherence with the ongoing national investment strategies and they can be disconnected from actual local needs. They often rely on loose preparation and weak appraisal. Ultimately, congressional amendments represent a large portion of the adopted investment budget. For example, amendments reached more than 60% of the appropriations proposed by the Ministry of Cities in 2015.

Congressional amendments are also a source of inefficiencies during budget execution. The execution of most amendments relies on *convênios*, which have to be monitored by the spending ministries. This is especially the case for the Ministries of National Integration and of Cities, which receives a greater share of individual amendments. Finally, as the release of funds for amendments may be used by the Executive as leverage for legislative support in Congress, the timely and effective use of resources is a secondary consideration.

Ministries have factored in these constraints by reaching out to Congress before and during budget approval, with limited success. The Ministry of Transportation organizes meetings with Congressmen before and during the discussion of the PLOA in order to present their priorities and convince them on technical grounds. Other ministries, such as the Ministry of Science and Technology, publish booklets specifically aimed at presenting priority initiatives to Congressmen and convincing them of contributing to them.

Sources: Mission, World Bank (Raiser et al., Back to Planning: How to Close Brazil's Infrastructure Gap in Times of Austerity, 2017).

53. **A more rigorous and disciplined approach to selecting projects to be funded from federal resources would improve the efficiency and outcomes from public investment, developing this approach should be a top priority**. The MPDG is working on a draft decree to set out standardized criteria for project preparation and selection, to be applied to all types of infrastructure projects including PPPs/concessions. As part of these draft criteria, spending ministries preparing projects will be required to undertake project appraisals, including financial and economic analysis (e.g. see Box 7). Requiring project appraisals and standard selection criteria, including specifically measuring projects against government's strategic priorities, will improve the quality of

[29] From 2018 on, the reserve will be calculated as a share of the 2017 expenditure ceiling adjusted for inflation, according to the new expenditure rule (Constitutional amendment No. 95).

prepared projects and by identifying early on projects that are not feasible reduce the potential waste of resources.

54. In addition, in the proposed draft revised PFM law there is a proposal in place to establish a "project bank" to act as a pipeline of major projects. The draft Law proposes to establish a national system of national public investment, which would include a bank of well-prepared projects. Formulation of these projects would follow standardized methodologies, norms and procedures established by the Executive. The Law would cover all public investment funded by public resources from all levels of government.

D. Delivering Productive and Durable Public Assets

11. Protection of Investment *(Institutional Strength — Low, Effectiveness — Low, Reform Priority — Medium)*

55. Formal rules provide little protection of capital spending during budget implementation. There are annual appropriations for project outlays and budget documents provide no information on total project costs, neither capital costs nor lifecycle costs.[30] Virement from capital to current spending during the year is allowed, within limits established in the annual budget law (LOA), and requires approval from MPDG. There is no mechanism for carry-over of budget appropriations, but commitments are carried forward for payment in subsequent years. Commitments known as RAP (*Restos a Pagar*) can be divided into two types. The first comprise "unprocessed" commitments, where funds are reserved for specific purposes in the budget execution system SIAFI, but accrued expenditure has not taken place. The second is "processed" commitments, where the goods and services have been received and there is a legal obligation to make payments.[31] These committed yet unpaid expenditures compete with the approved budget in the use of financial resources. [32] RAPs are not formally considered carryovers. There are no limits to RAPs and the stock of commitments, but unpaid expenditures amounted to some 2.4 percent of GDP at the beginning of 2017.

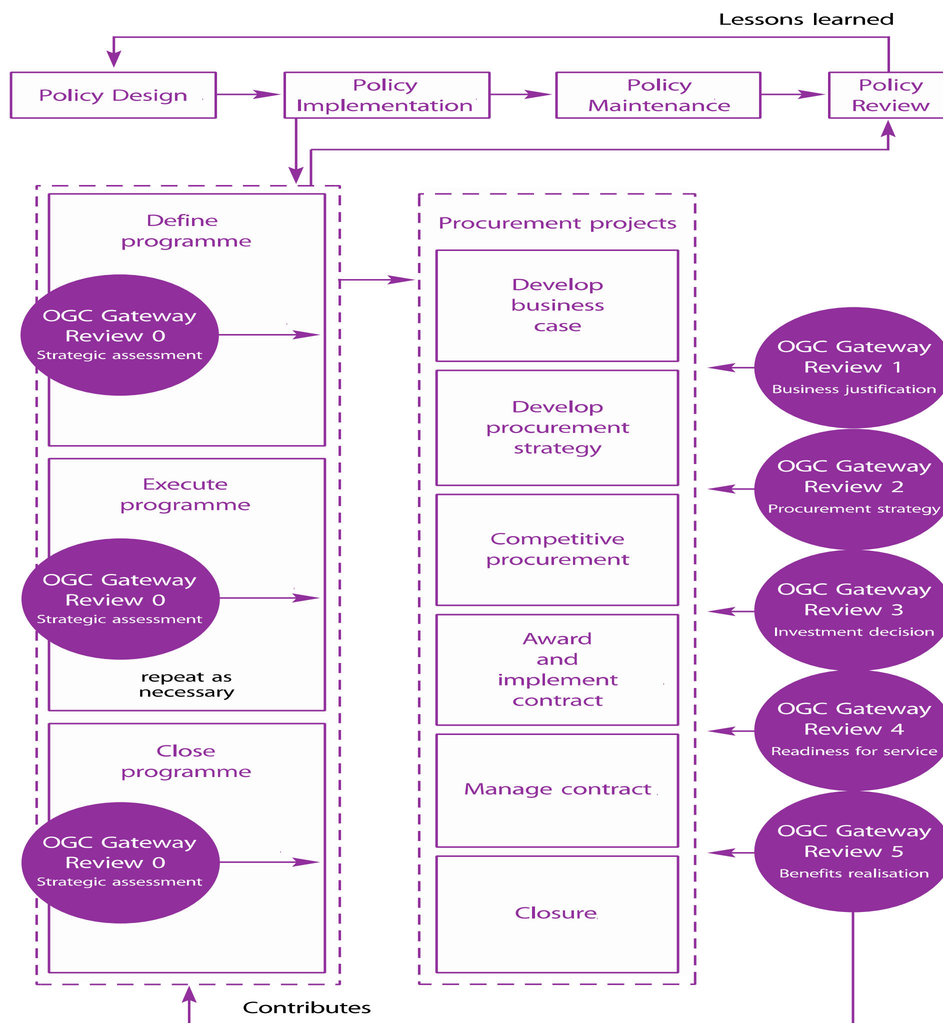
[30] The LDO 2018 requires that the costs of the projects, considering the life cycle, will be included in the complementary information to LOA 2018

[31] The processed RAP are cancelled (*Prescrição*) after 5 years of existence (Decree 93.872, art. 70). The unprocessed RAP are cancelled earlier, on June 30th of the second year of existence (Decree 7.654, art. 1, $2).

[32] A Presidential decree issued at the beginning of each year distributes the budget appropriations among spending ministries, specifies commitment and payment ceilings for each month and indicates the stock of RAPs. In 2015 and 2016 the MOF made additional funds available for payment of RAP commitments carried forward from previous years. More commonly they prioritize the payments of processed RAPs from the current year's budget without additional funds.

Box 7. UK Gateway Review Process for Large Public Investment Projects

In order to improve the efficiency of public investment projects, the UK government established a gateway review process for large projects. This process is a formal, independent, and targeted review of the planning and implementation of a project at key stages during its life-cycle. There are five gateway review stages: three before the contract award and two afterwards. Gateway reviews are rapid exercises, undertaken by an experienced team of up to 4 people, taking an average of 3-4 days to complete. The review uses a traffic-light system, assigning Red/Amber/Green status to the program or project, with red signaling immediate remedial action. The review report is provided to the official accountable for the project, who is accountable for the implementation of recommended remedial action and program/project progression. These reports are used for sharing applicable lessons more widely. A typical gateway process is illustrated below.



Source: UK National Archives

56. Actual budget practices do not provide predictability of capital budget funding. The PPA and the PAC do include data on total costs of most major projects, but these are not updated in line with the budget, so estimates will often be outdated. Spending ministries' ability to commit funds for future years does allow for some degree of carry forward but the decisions regarding additional funding for prior commitments, above what has been appropriated in the budget, are ad-hoc and

unpredictable. In 2016 the Treasury released about 12 billion Reals more for payment of PAC expenditures than in the original budget, to allow for clearance of some of the prior PAC commitments. Table 5 gives an overview of total PAC allocations, prior commitments and payments in 2016, as well as data for the three ministries with the highest PAC budget allocations for 2016 - the Ministries of Cities, Transport and Defense.

Table 5. Clearance of Prior Commitments Under PAC in 2016

	Budget 2016	Payments for budget 2016	Prior commitments	Payments prior commitments	Total PAC expenditure
Total	30.729	20.123	48.928	21.920	42.042
- Cities	8.219	7.380	13.219	4.3983	11.762
- Transport	8.139	4.091	11.607	7.169	11.261
- Defense	4.604	3.382	3.382	3.166	6.548

Source: MOF, staff estimates

57. Improvements in protection of investment during budget execution should be a high priority. Protection of investments over the implementation period is weak and this contributes to project delays and cost overruns. Improvements in this area would allow spending ministries to plan their investments on a realistic and predictable basis, and would enhance the credibility and quality of the project planning and prioritization. Improvements could include more comprehensive and consistent disclosure of total project costs in budget documents, a restrictive approach to virements from capital to current spending, and a formalized carry-forward mechanism for major investment projects.

12. Availability of Funding *(Institutional Strength — Medium, Effectiveness — Low, Reform Priority — High)*

58. Cash forecasts are prepared regularly and donor funding is well integrated into cash management. Ministries get indicative commitment and payment ceilings for the year, but these may be adjusted downward during the year. Budget and cash flow forecasts are updated every second month, and revised ceilings are announced in bi-monthly updates of the presidential decree on budget allocation. Donor funds are not always included in the TSA, but donor funding is included in the budget, and cash management is consolidated. Donor funding is very limited at the federal level and does not undermine consistent cash management.

59. Budget sequestration and cash rationing is applied regularly and hinders efficient capital project implementation. In recent years, limits on budget commitments and cash payments have been reduced regularly during the year to remain within the primary target or because of adjustments to that target. This has had significant, negative impacts on project implementation. These changes give line ministries little time to adjust commitment plans and create uncertainty for planning the implementation of public investments during the year. Table 6 provides an overview of budget sequestration and cash rationing for PAC expenditure, through subsequent reductions in the annual ceilings during the execution of the 2017 budget in the first half of the year.

Table 6. Impact of Budget Sequestration and Cash Rationing on PAC in the 2017 Budget
(accumulated annual limits, million Real)

Decree	January 17	March 30	April 28	May 30	July 28
Annual budget commitment ceiling	37.192	26.655	26.655	26.655	19.686
Annual budget payment ceiling	37.192	25.155	25.155	24.855	17.723

Source: Presidential decrees 8.961, 9.018, 9.040, 9.062 and 9.113.

60. Budget sequestration is one of the major causes of recent capital budget under-performance, and improvements in this area is a top priority. When line ministries become uncertain about whether approved and budgeted capital projects will actually be funded and executed during the year, this undermines their incentives for rigorous project preparation and effective project management. One possible solution could be to prioritize major capital projects within realistic and predictable annual commitment ceilings, effectively excluding these projects from the bi-monthly revisions of budget ceilings. Before 2015, this has been the case for all PAC projects, however the current proposal would be to have this focused on a narrower set of priority projects which are near completion.

13. Transparency of Budget Execution *(Institutional Strength — Medium, Effectiveness — Low, Reform Priority — Medium)*

61. PAC projects are subject to systematic monitoring but the transparency of procurement is limited. PAC projects are subject to central monitoring of financial and physical execution by the MPDG, using dedicated information systems for this purpose (SISPAC and SGPAC). Project updates are received from line ministries twice a year, and there are sectoral meetings to review project implementation and identify challenges. There is no mechanism for central monitoring of non-PAC investment projects. The President's office monitors about 40 high-priority programs, including some major investment projects. National procurement law prescribes that capital projects should be tendered competitively. The government procurement portal provides information on individual procurements, but there is no statistical or analytical information.

62. Weak procurement practices reduce the effectiveness of capital budget execution and there is no systematic *ex post* audit. Most capital projects are tendered nationally, as international tendering is very rare although the PPI is encouraging this approach. International companies can participate in national tenders, either as part of a consortium or on their own, and some contracts have been awarded to international companies. Whereas central monitoring covers both financial and physical execution, the focus seems to be on financial performance at a program level. The application that allows for physical monitoring of individual projects (SGPAC) was deployed in 2016, and is still not fully operational. There is no clear evidence regarding to what degree central monitoring leads to active intervention in projects at risk. Both the CGU (the internal auditor) and TCU (the external auditor), audit the effectiveness of government programs and publish separate reports

for each program.[33] There is, however no standard requirement or mechanism for *ex post* audit of major capital projects, and neither the CGU nor the TCU systematically carry out such audits.

63. **There is a clear scope to improve the transparency of budget execution, but some of these improvements will require broad, long-term efforts.** The most important step in the near term would be to establish mechanisms for systematic *ex post* audit of capital projects. More pro-active project monitoring and extended use of international tendering are important in the medium term. The institutional strength and effectiveness of procurement arrangements are discussed in more detail under Institution 17 and in Annex 2 of this report.

14. Management of Project Implementation *(Institutional Strength — Low, Effectiveness — Low, Reform Priority — High)*

64. **There are no standardized approaches to the management of major capital projects.** There is no requirement that project implementation plans are prepared prior to PAC project approval or prior to the allocation of budget funding. Most major projects are implemented by agencies, SOEs or subnational governments. Whereas the ministries monitor project implementation, they do not appoint senior responsible officers for each major project. In the implementing agencies, responsibilities for project implementation is generally allocated to organizational units or teams, and it is not common practice to appoint project managers that are fully accountable for effective implementation of the project. The ministries provide semi-annual reports on implementation of PAC projects in their sector to the MPDG. These reports identify any needs for adjustments in project cost estimates. Proposals for adjustments are reviewed by the PAC technical committee and approved by the management committee. These adjustments do not include fundamental review and reappraisal of projects. Budget implications of PAC project adjustments are reflected in budget submissions for the following year.

65. **Major capital projects have generally had very significant cost overruns and delays.** These are illustrated in Table 7. A recent study by the World Bank and audit reports highlight that cost overruns, delays and poor project management are common, especially at subnational levels. There is no general framework for capital project management, but some institutions are taking steps to increase their effectiveness in this area. The national highways administration (DNIT) established an office for project management in 2016 and are developing a framework for consolidated management of investment projects over their lifecycle. The federal savings bank Caixa, which finances many smaller investment projects at the local level and also implements projects on behalf of the federal government, have quite stringent mechanisms for project implementation, including a requirement that project implementation plans be prepared before funds are disbursed.

[33] For more information on the TCU's role and the reports it produces see www.tcu.gov.br/

Table 7. Cost Overruns and Implementation Delays for Major Projects[34]

	Number of major projects	Average project delay (months)	Average cost overrun
Ministry of Cities	10	81	59 %
Ministry of Education	4	21	12 %
Ministry of Energy	30	16	79 %
Ministry Science, Technology, Innovation and Communication	4	27	109 %
Ministry of Transport	8	51	81 %
Total	56	39	64 %

Source: IMF, staff estimates.

66. The budget execution rate for PAC overall has been weak. The World Bank estimates that between 2001 and 2015 the federal government and SOEs executed less than 30 percent of planned investment expenses.[35] Using a shorter time frame, according to the NGO Contas Abertas, for the 60,000 undertakings between 2007 and 2015, only 37% were finished, another 34% were delayed, and the remaining have yet to be started. The weak execution rate for capital projects included in the PAC cannot be attributed to sequestration since it was exempt prior to 2015. Indeed, the World Bank and audit reports have highlighted poor project selection and design, low capacity and poor management of projects.[36]

67. The persistent cost overruns and project delays can partly be attributed to weak planning and unrealistic costing. During implementation, project specifications are changed making them more expensive, and contract amendments may be signed without formal amendment of the project. The quality control from contracting agencies is often lacking.

68. Until 2015, PAC projects were exempted from budget sequestration and cash rationing associated with achievement of the primary budgetary surplus target. PAC projects have also been subject to simplified procurement and environmental licensing procedures, but this has not significantly reduced implementation problems. A probable explanation is that PAC projects also suffered from original planning and appraisal shortcomings which could not easily be overcome during implementation, even with simplified procedures. There is also extensive fragmentation of project structures and funding arrangements. Ministries divide projects' work into several components, which often have different funding sources. For instance, the Ministry of Health monitors more than 38.000 projects, mainly at the sub-national government level.

[34] Average project delays are un-weighted. Average cost overrun is weighted using final project costs.

[35] For more information, see World Bank, Raiser et al., *Back to Planning: How To Close Brazil's Infrastructure Gap in Times of Austerity*, 2017.

[36] Ibid.

69. Effective project management is currently not a key focus for implementing ministries and agencies, and this area should be a high priority and strengthened considerably. Whereas ministries and agencies put significant emphasis on monitoring of projects, there is much less focus on actual project management. The failure to assign clear responsibilities and accountability for project implementation is striking in that regard. Some good international practices are presented in Box 8.

Box 8. Good International Practices for Project Management

In many countries, government agencies provide guidance on project management and training of project managers. In the UK, there are numerous resources available for project managers, including training on introduction to project management focusing on four steps of project management which are discussed below.

Project Start-Up: Before starting a project, it is vital to gain the commitment of the business to the proposed project. The outputs must be clearly defined and agreed, along with the measures (critical success factors) against which the outputs will be judged. It is also vital to ensure there are adequate numbers of staff with the required skill set and experience for the task. The project must have a clearly defined and agreed output which contributes to overall business objectives and an unambiguous business case.

Project Delivery: Project delivery entails breaking the project down into stages, reviewing, reporting and deciding whether to continue or not. These are all activities that happen at the end of a stage, prior to commencing the next. The rest of the organization needs to be aware of the project's progress, especially where other parts of the business will take delivery of the projects outputs or products. The complexity and context for the project will determine whether the implementation phase of the project is carried out in a single stage or broken down into two or more stages so that appropriate levels of management control can be applied. A stage plan contains the level of detail required for controlling the project day-to-day by the project manager.

Project Closure: Projects must be closed in a controlled manner, whether it has been completed according to plan, has been abandoned or failed. Crucial to this phase is the documentation of what went well and what did not. Set up formal controls for implementing project closure whether closing goes to plan or is premature. Produce an end project report, and 'lessons learned' reports. Document any 'unfinished business' so that those responsible for managing a service or contract after the project closure will be aware of these issues

Review: Plan to carry out a post implementation review - this could be weeks/months/years after project closure depending on the types of benefits expected to be realized. The project only plans for a post implementation review; the actual review would be carried out by the business side that leads on assessing benefits realization. The main purpose of a post implementation review is to answer the question: Did we achieve the benefits set out in the business case? If not, why not? Did we achieve more?

Source: IMF Mission Staff

15.

Monitoring of Public Assets *(Institutional Strength - Medium, Effectiveness - Medium, Reform priority: Low)*

70. **Non-financial assets are accounted for and reported in financial statements.** Accounting is done by each ministry, and consolidated by the Treasury to prepare the annual financial statements.

Balance sheets include non-financial assets and depreciation is included in operating statements based on asset-specific analysis. Currently, the detailed accounting practices are largely determined by each ministry. Ministries determine the scope and frequency of asset surveys, as well as the valuation principles and depreciation rates for different classes of assets. The same applies to sub-national governments, which provide their annual financial statements to the Treasury, but no detailed accounting data.

71. The government is implementing a major accounting reform, which will enhance the scope and consistency of general government accounting considerably over the coming years. The on-going program aims to introduce several different international public sector accounting standards (IPSAS), and will apply to state and local governments as well as to the federal government. The implementation plan for the accounting reform is outlined in a government regulation.[37] It includes 19 different implementation steps, of which steps 7 – 9 are particularly important for monitoring of assets. These steps are based on IPSAS 17 - Property, plant and equipment. The accounting reform will give the treasury access to accounting data at all levels of government, and facilitate full and accurate reconciliation and reporting on general government financial transactions. Table 8 gives an overview of the timetable for introduction of asset accounting according to IPSAS 17 at the different levels of government.

72. The mission emphasizes the importance of the ongoing accounting reforms, and has no additional recommendations in this area. The efforts to strengthen accounting, in particular by gradually introducing IPSAS and incorporating sub-national governments in the accounting framework, will help create a solid basis for monitoring of public assets.

Table 8. Timetable for Introduction of New Accounting Standards

	Federation	States	Municipalities above 50,000	Municipalities below 50,000
7. Recognition, measurement and disclosure of movable and immovable property	2017	2019	2020	2021
8. Recognition, measurement and disclosure of infrastructure assets	2019	2022	2023	2024
9. Recognition, measurement and disclosure of assets of cultural heritage	2021	2022	2023	2024

Source: Portaria STN Nr. 548

[37] PLANO DE IMPLANTAÇÃO DOS PROCEDIMENTOS CONTÁBEIS PATRIMONIAIS. Annex to Portaria STN Nr. 548, September 24, 2015.

IV. REFORM PRIORITIES AND RECOMMENDATIONS

Based on the analysis in this report, this chapter makes recommendations on how to address the weaknesses identified under each pillar and in cross cutting issues. It discusses how to improve the strength and effectiveness of PIM institutions. The recommendations discussed below are grouped according to reform priority.

A. High-Priority Recommendations

Recommendation 1: Building on existing initiatives, increase flexibility in the budget and develop medium-term frameworks.[38]

Issue: In the challenging economic and political environment of recent years, public debt has been on the rise and fiscal space has shrunk. Earmarked revenue, fast-growing large mandatory spending programs and generous indexation practices have constrained the budget and left little room for discretionary spending, including public investment. The current fiscal framework, despite possessing elements of a medium-term framework, including a new rule on primary expenditure, remains short-term oriented and does not promote strategic decision making on fiscal policy and budgeting. More robust frameworks are needed to strengthen and integrate the top-down and bottom-up aspects of budgeting. This can help create a more realistic alignment between planning, budgeting and the ultimate availability of public funding.

Recommendation: Create fiscal space for public investment by improving flexibility in the budget and by strengthening the medium-term perspective in fiscal and budget management, while maintaining fiscal discipline.

Implementation measures:

Short-term measures

- Review mandatory spending and indexation practices, and implement measures that could temper or constrain their growth within the limits defined by the Constitution.
- Develop and publish a fiscal strategy statement ahead of each annual budget.
- Develop a fully-fledged medium-term fiscal framework for ensuring better top-down strategic guidance for the budget process and the setting of relative priorities, supported by new and improved tools for macro-fiscal projections.
- Set up a high-level Fiscal Committee comprising the MOF, the MPDG and the President's Office to coordinate macroeconomic, fiscal and budget issues, supported by a technical committee.
- Starting with a few major spending ministries, develop a medium-term budget framework for ensuring a strong alignment between planning, budgeting and execution for public investment

[38] This recommendation and implementation actions have already been presented to the authorities in another IMF report. For more details on the implementation measures, see IMF, Curristine and al., *Supporting Implementation of the Expenditure Rule Through PFM Reforms*, 2017.

(among other spending) within rolling, multi-year fiscal constraints. The technical committee should take the lead with SOF leading the work with major spending ministries.
- Develop baseline estimates for major ministries ahead of the 2019 budget process.
- Adopt an internal debt target.

Medium-term measures
- Expand coverage of the MTBF to all ministries.
- Publish forward estimates and use updated baselines in budget ceilings.
- Expand the fiscal strategy statement by including a formal debt path to guide fiscal policy.

Recommendation 2: Strengthen strategic prioritization of public investment and develop a prioritized portfolio (bank) of high quality projects.

Issue: Public investment management is hampered by a lack of high-level guidance on the priorities of each level of government and confused accountabilities, as well as the lack of an effective national strategic infrastructure plan (to date) to guide public investment decisions. The current pipeline of major projects (PAC) is not effective at providing a targeted, prioritized portfolio of implementable projects consistent with medium-term resources.

Recommendation: Develop a broad (not detailed) high-level national investment strategy to guide sector planning, this strategy would outline the national priorities for public investment and identify key sectors.

Implementation measures:

Short-term measures
- Prepare a national strategy for investment which focusses on a national vision and broad strategic objectives, overall and by sector, but does not include a list of projects
- Rationalize the current pipeline of projects to focus only on major public investments

Medium-term measures
- Create and maintain a prioritized portfolio of high-quality major projects consistent with the MTFF/MTBF and using the strengthened procedures for project preparation and appraisal suggested below (recommendation 6).
- Ensure spending ministries rationalize their internal (non-major) project investment portfolios, focusing on a limited number of projects which: (i) are necessary to achieve the sector’s strategic objectives; (ii) are high-quality projects; and (iii) can be implemented with existing capacity and existing resources. The rest should be removed.

Recommendation 3: Improve coordination between federal and subnational governments in investment planning and review funding mechanisms.

Issue: Consolidated information on local investment plans is lacking to ensure proper coordination with national and sectoral investment strategies. Spending ministries have to manage thousands of small-sized projects which are not clearly prioritized. Subnational governments suffer from a lack of

capacity in project preparation, appraisal and management. Congressional amendments, which can be mandatory, may significantly hinder the implementation of sectoral investment plans and may impact the quality of local infrastructure, with low concern for the efficiency of projects.

Recommendations: Find a better balance between the need for federal oversight and greater devolution of accountability to subnational governments, by building public investment management capacity at the local level and by gradually reducing the fragmentation of federal funding.

Implementation measures:

Short-term measures

- Generalize a program-based approach to transfers for social infrastructure projects to one or two pilot states whose capacity is relatively high, leaving precise allocation choices to the pilot states. Such specific purpose grants would be designed on a program or initiative basis, rather than requiring central oversight on a project-by-project basis. Such grants could be based on a formula (equal per capita amount, or according to the value of services delivered). They could be paid as a block reimbursement to a state, or could transit *via* the State Participation Fund. See Annex 3 for a description of how block grants and formula based transfers work in Australia, Canada and India.
- Require projects funded by congressional amendments to be accompanied by a cost-benefit analysis and an assessment of their coherence with sectoral needs.
- Avoid having several funding arrangements for a single project.
- Develop specific training programs on project management for subnational government staff (see recommendation 6).

Medium-term measures

- Extend the program-based approach to other states and large municipalities.
- Introduce risk-based monitoring of projects at the subnational government level, focusing on large, complex and high-risk projects.
- Limit congressional amendments on capital investment to existing programs or initiatives in the PLOA.

Recommendation 4: Strengthen and standardize procedures for project preparation, appraisal and selection.

Issue: There is no effective gatekeeping function for inclusion of projects in the budget, and the selection of projects is made without regard to economic (cost/benefit) or financial feasibility or their alignment with strategic priorities. The preparation of good-quality projects is hampered by the lack of a proper appraisal process and a formal process for staged project approval, with decision steps requiring clear criteria, justification and sign-off before moving to the next stage.

Recommendations: First, formalize and document procedures for a strengthened public investment project cycle, including project identification, initial screening, preparation, appraisal, review, approval and selection, consistent with the budget cycle. Annex 5 presents a new process for improving project preparation and selection for major and non-major projects in Brazil. Second, develop and introduce

standard guidelines for this strengthened investment project cycle. For projects above a certain threshold require these analyses before deciding on the funding modality.

Implementation measures:

Short-term measures

- Establish and codify in legislation a new rigorous process for preparation, appraisal, approval and selection of large public investment project proposals
- Introduce a formalized process for project decision-making at all stages of the project cycle, including a formal yes/no decision step (with justification and sign-off) for project selection (by spending ministry or central institution), based on clear criteria for each decision step.
- Introduce a standardized process of project appraisal (with varying levels of complexity based on thresholds) to be applied to all capital investment. Require that major investment projects be subject to detailed cost-benefit/financial feasibility analyses, with the results used to select projects meeting minimum economic/financial feasibility criteria.
- Prepare detailed methodological guidelines on realistic project costing.
- Introduce standardized methodological guidelines on project appraisal techniques.
- Provide training to spending ministries on undertaking project appraisal and costing techniques.

Medium-term measures

- Establish a central cadre of specialists (e.g. in the MPDG) to provide technical advice and support to spending ministries on carrying out economic and financial analyses, including VfM.
- Introduce standardized procedures for conducting VfM analyses and require projects in the prioritized portfolio to carry out VfM analyses before deciding on the funding modality (e.g. budget or PPP/concession).
- Prepare methodological guidelines on VfM analytical techniques.
- Publish the results of major project appraisals.

Recommendation 5: Enhance the predictability of funding for major capital projects.

Issue: Funding of public investments is highly unpredictable. There is significant uncertainty about the availability of resources to implement projects over the lifetime of the project, and even during the budget year. There is no mechanism for multi-year appropriations. Ministries are allowed to carry over commitments from one year to the next, but it is highly uncertain whether and when these commitments will actually be financed. Capital investment plans are generally unrealistic, and execution rates for capital investments are low. The uncertainty about whether planned and approved projects will actually be implemented undermines the incentives for realistic planning and effective project implementation.

Recommendation: Enhance the realism of capital budgets and the predictability of funding for major capital projects, to allow ministries, agencies to plan and implement projects as effectively as possible.

Implementation measures:

Short-term measures

- Prioritize major capital projects within annual commitment ceilings and avoid reduced cash allocations for these projects during the year

Medium-term measures

- Revise budget regulations to allow for multi-year appropriations in special cases
- Revise budget regulations to allow carry-forward of budget authority for multi-year capital projects, within transparent and clear limits

Recommendation 6: Enhance project management capacities and accountability.

Issue: There is no standardized framework for management and implementation of major public investment projects, and project execution effectiveness is very low. Ministries and agencies focus on monitoring of projects rather than on pro-active management. There is very poor accountability for project implementation results at all levels of government. There is a presumption that many local governments are ill equipped to manage federally funded projects. There are no mechanisms for *ex post* evaluation of projects and no systematic learning from past project implementation results.

Recommendation: Enhance the effectiveness of project management, preparation and implementation by creating a clear and consistent framework for management of public investment projects, by holding managers accountable for results, developing guidelines and training programs and by creating mechanisms for learning from past performance (see Box 8).

Implementation measures:

Short-term measures

- Prepare government decree regarding key parameters and responsibilities for management of public investment projects, including assignment of accountability to specific project managers
- Update budget regulations to require *ex post* review of all major capital projects, with subsequent compilation and cross-cutting analysis
- Consider consulting with the TCU to assess interest in conducting *ex post* audits of capital projects

Medium-term measures

- Develop comprehensive guidelines for consistent management of public investment projects at all levels of government
- Provide centralized resources and funding and consider establishing a separate agency to support project preparation and management for major projects, including to support sub-national efforts.
- Conduct training programs for project managers and other project implementation staff, for both federal and local government staff
- Update budget regulations to require that project implementation plans are prepared prior to budget funding decisions

- Include 10 – 20 *ex post* audits of capital projects in CGU annual work program

Recommendation 7: Modernize public procurement.

Issue: In practice, there are significant barriers for foreign firms seeking to bid for public works in Brazil, with apparently scarce examples of major contract awards to foreign companies. It is vital from an investment efficiency perspective that continuous improvements are made to the differentiated procurement framework (RDC) for major projects. The focus on the lowest price appears to be at odds with ensuring an appropriate quality of projects and their related infrastructure and services and a full life-cycle costing approach to infrastructure investment.

Recommendation: Update the procurement framework for major projects to remove barriers to foreign participation, to enhance competitive outcomes and to strike a better balance between price and quality in project bidding.

Implementation measures:

Short-term measures

- Conduct an independent 'first-principles' review of the RDC to assess its performance and options for improvement along two specific dimensions: international participation and price versus quality.
- Create a central oversight mechanism and guidelines to ensure quality and consistency in RDC bidding documents and practices.

Medium-term measures

- Publish an annual procurement plan to foreshadow upcoming requirements in advance of formal tendering processes for specific projects.
- Set targets for increasing the number and diversity of participants in RDC processes.
- Publish regular reports containing summary data and analysis on the outcomes of RDC procurement processes.
- Conduct *ex post* reviews of RDC procurement processes, particularly where there has been a small number of bids, non-participation by foreign firms or any irregularity.
- Establish an independent complaints and dispute resolution body for major projects.

B. Medium-Priority Recommendations

Recommendation 8: Improve the strategic framework for PPPs and concessions and strengthen analysis.

Issue: The creation of the Secretariat for the PPI (SPPI) has centralized the selection of major concession projects and helped remove bottlenecks in the project cycle. However, many concessions still fall outside of the scope of the SPPI and unsolicited bids are common. There is no consolidated vision of the existing portfolio of concessions and PPPs in Brazil. Despite the current emphasis on delivering major infrastructure projects through PPPs and concessions, there is no public strategy guiding the selection of projects or guiding the activities of the SPPI. Communication on fiscal risks is

limited to a short section in the Annex on Fiscal Risks attached to the LDO. See Annex 4 for a more detailed assessment of the Brazilian PPP and concessions framework.

Recommendation: Reinforce prioritization and transparency within the PPP and concession framework by clarifying the national strategy for PPPs and concessions, in line with the National Investment Plan, by reinforcing the disclosure and management of fiscal risks and by further centralizing the selection process.

Implementation Measures:

Short-term measures

- Publish a national strategy for PPPs and concessions, detailing the criteria for appraisal and selection of projects, and providing a prioritization of projects or sectors
- Ensure that value-for-money analysis is conducted at a central level for all new potential concessions or PPP projects.
- Develop a database and publish a list of the largest federal concessions and PPPs, as part of the annex on fiscal risks, with an evaluation of the revenue flows, assets and liabilities involved for each, and a demonstration that the ceiling for government payments associated with PPPs is complied with.
- Ensure that unsolicited bids fit within national and sectoral planning and are made subject to competitive auction.

Medium-term measures

- Ensure centralized oversight of all new federal- or SOE-level concessions and PPP projects and analyse the sustainability and fiscal risks associated with each project in its appraisal phase, both for federal and subnational projects.
- Extend the published list to subnational PPPs and concessions, with an evaluation of the revenue flows, assets and liabilities involved for each, and a demonstration that the ceiling for local government payments associated with PPPs is complied with.

Recommendation 9: Improve the clarity of roles and independence of regulatory agencies.

Issue: Regulatory agencies act both as regulators for their respective sectors and as authorities in charge of tendering and contracting concession projects. This may lead to possible conflicts of interest or sudden changes in regulatory practices. There have been cases of funding volatility, political interference in the appointment of regulatory agency board members and delays in the nomination process.

Recommendation: Strengthen the financial and managerial independence of regulatory agencies and establish a clear separation between the regulatory functions and the concession contract management functions.

Implementation measures:

Short-term measures

- Review and adopt the current draft law on the governance of regulatory agencies, in line with OECD guidelines on regulatory independence, to improve the independence of the appointment process and cap the duration of vacancies on the Boards of these agencies
- Provide technical justifications to all changes in regulations.
- Ensure stable and predictable resources for the agencies through new guidelines in the LDO

Medium-term measures

- Explore new self-funding possibilities (fees) to further secure the budget of regulatory agencies.

Recommendation 10: Develop systematic approaches to maintenance planning, budgeting and execution.

Issue: There does not appear to be a systematic, cross-government approach to assessing maintenance needs to preserve the stock of public capital. In practice, it is also difficult to gauge the extent to which even specific maintenance budgets are being executed. Ensuring adequate maintenance funding links to the need for a multi-year approach for public investment and greater protection of the investment budget, together with requirements for life-cycle costing of major projects and more standardized procedures and practices for other public investment.

Recommendation: Develop systematic approaches to maintenance planning, budgeting and execution.

Implementation measures:

Short-term measures

- Ensure future maintenance spending is captured in the full life-cycle costing of new projects, cost-benefit analyses and value-for-money analyses.
- Assign a 'marker' within the budgeting and accounting systems to facilitate better tracking of maintenance budgets and their execution.

Medium-term measures

- Develop a standardized approach to be employed by relevant ministries to evaluate annually current and capital maintenance needs over a rolling 3-5-year horizon.
- Integrate maintenance spending within MTBF.

Annex I. PIMA Detailed Scores for Institutional Strength in Brazil

The following color coding is used in presenting the scores.

Score	Low	Medium	High
	1	2	3
Color	(red)	(yellow)	(green)

I.	PLANNING
	Institutional Strength
1.a	2
1.b	1
1.c	2
2.a	3
2.b	3
2.c	2
3.a	3
3.b	1
3.c	1
4.a	1
4.b	1
4.c	1
5.a	3
5.b	2
5.c	3

II.	ALLOCATING
	Institutional Strength
6.a	3
6.b	1
6.c	2
7.a	3
7.b	3
7.c	2
8.a	2
8.b	2
8.c	3
9.a	1
9.b	1
9.c	1
10.a	1
10.b	1
10.c	2

III.	IMPLEMENTING
	Institutional Strength
11.a	1
11.b	2
11.c	1
12.a	2
12.b	1
12.c	2
13.a	2
13.b	2
13.c	1
14.a	1
14.b	2
14.c	1
15.a	2
15.b	2
15.c	3

New institutions proposed for PIMA framework

	Institutional Strength
16.a	2
16.b	2
16.c	1
17.a	2
17.b	2
17.c	1
18.a	2
18.b	1
18.c	1

Annex II. Cross-Cutting PIM Institutions and Issues

The purpose of this annex is to cover cross cutting PIM related institutions and issues. These cross-cutting dimensions include issues that support the implementation of PIM institutions or create implementation barriers. Based on the feedback from the first round of PIMA pilots in nearly 20 countries, three additional institutions have been proposed to be included in the final PIMA framework. These relate to cross-cutting issues, legal framework, IT systems, capacity building, procurement, and maintenance funding. The strength of these institutions has been analyzed for Brazil below.

16.a. Legal Framework

(Institutional Strength — Medium, Effectiveness — Low, Reform Priority — High)

A well-designed legal framework should guide decisions across all stages of the public investment cycle; assign clear roles and accountabilities and define the processes and tools to be followed. To be assessed as meeting the "high" standard under the PIMA, a legal framework should support efficient and streamlined operation of the PIM process.

In assessing the overall operation of the 'legal framework' for public investment in Brazil, a broad definition has been adopted. The scope of the framework encompasses the Constitution, legislation, regulations, decrees, orders and decisions taken by the supreme audit authority, and other relevant standards and guidelines (including planning and budget guidance, and accounting and audit standards).

The legal framework for public investment in Brazil is complex and fragmented. Addressing this problem will be a long-term challenge but could be supported by efforts focusing on developing a more principles-based and outcomes-oriented approach to guide the overall investment framework and regular evaluation of outcomes. Landmark initiatives such as the new Public Finance Law, which proposes a National Investment Plan and Project Bank, and the adoption of multi-year frameworks will be instrumental in creating the momentum for reform. But equally important are complementary efforts to introduce more consistent, guidelines-based approaches to all aspects of public investment management. Another key point in terms of addressing complexity and fragmentation relates to the degree of devolution which might be achieved within Brazil's federal-state-local financing arrangements.

A number of gaps in the legal framework have been identified in the assessment of the various PIMA institutions. Table 9 recounts the main areas where this report suggests that institutional strength or effectiveness could be enhanced.

Table 9. Summary of Aspects of the Legal Framework Requiring Attention

Topic	Key public investment issues
Fiscal strategy and medium-term frameworks	There is no overarching fiscal strategy that guides fiscal policy in the medium to long term. A debt anchor would serve as a multi-year constraint for fiscal policy and complement the expenditure rule. A MTFF would promote better top-down strategic guidance over the budget process and the setting of relative priorities. A MTBF would ensure stronger alignment between planning, budgeting and execution for public investment within rolling, multi-year constraints.
National Investment Strategy	A National Investment Strategy would outline national priorities for public investment. Institutional arrangements and processes need to support the development of a prioritized portfolio of high-quality, fully-costed projects that can be implemented with public support or private financing – with the decision on modality based upon value for money analysis.
PPP/Concessions strategy	While governed by relevant legislation, there is no overarching strategy guiding the use of PPPs, concessions and unsolicited bids. The framework should be updated to ensure alignment with national priorities, that explicit criteria are used to guide decisions and that VFM analysis is undertaken prior to the choice of modality
Economic regulation	There is a potential for conflicts of interest to arise given the roles of regulators in preparing bidding documents for PPPs, monitoring performance under PPP contracts and their broader sectoral responsibilities. The financial independence of economic regulators should be assured.
Project preparation, appraisal and selection	Standardized approaches should be developed and applied for the preparation, appraisal and selection of major projects. Costing guidelines need to be updated to ensure full life-cycle costing of major projects. Management of public investment (other than major projects) by spending Ministries should be undertaken in line with standardized practices.
Investment protection	The budget process needs to enhance the realism of capital budgets and reduce the fragmentation of funding sources. A priority should be given to funding for major projects within annual ceilings to improve the prospects for project execution. Multi-year appropriations and carry-forwards should be used in special cases.
Project management and ex post review	A project management approach needs to be developed in Brazil, with requirements for project plans to be prepared and accountability for each major project assigned to an individual project manager in the implementing agency. This requires ongoing efforts in training and capacity development, and formal guidelines.
Procurement	Brazil's procurement framework for major projects, while sound on paper, does not appear to be delivering strong international competition on the ground. Modernizing the framework in line with international practices and increasing transparency around opportunities and outcomes would help.
Maintenance funding	There appears to be no systematic approach to assessing current and capital maintenance needs at the planning or budget stage, and monitoring of maintenance spending and execution is not well supported by the accounting framework. This aspect of public investment management should become a focus in parallel with the adoption of medium-term budgeting frameworks and requirements for full life-cycle costing of major projects.

Source: IMF Mission

16.b. Information Systems

(Institutional Strength — Medium, Effectiveness — Low, Reform Priority — Low)

The following major information systems have been considered as part of the mission's assessment:

SGPAC – a centralized database maintained by the MPDG which collates basic information on each project and investment (both PAC and non-PAC) for which the central government is providing financial support. SGPAC allows tracking of the status and physical progress of individual projects and initiatives across the various stages of the project cycle, but relies in many cases on manual updates of such information based on consultation with implementing agencies. This can result in timing lags and the possibility of incomplete information. It appears that project costs are updated, however there is no annual profile of costs which limits the usefulness of this database as an input to the budget process. SGPAC is not yet fully integrated with implementing agencies' project management systems. There are plans to increase the degree of integration with other systems. SGPAC is not publicly available.

SISPAC – this is an additional system of the MPDG which maintains records at a more aggregated level for all PAC projects and initiatives. While it draws inputs from SGPAC, it is not as detailed. SISPAC was integrated with the financial information system, SIAFI in 2016 and since that time allows the latest information on financial execution of PAC projects to be accessed. SISPAC is now the primary vehicle for commitments management for PAC projects. SISPAC is available only to registered users in the Brazilian Government. It is used to produce regular public reports on the PAC program and supports portfolio-based approaches for monitoring.

SIOP – the Integrated System for Planning and Budget which is an online portal through which public access to the SAIFI database is available. SIOP allows users to access very detailed information on budget allocations, commitments, liquidation and payments. Brazil's single-year budget system, which is not an accrual-based framework, makes it difficult to assess the extent to which financial execution data reflects the reality on the ground.

SIAFI – the Integrated System for Financial Administration is the budget execution and general accounting system which permits decentralized management of receipts and payments under the supervision of the National Treasury (Ministry of Finance).

As outlined above, Brazil maintains several relevant information systems for public investment, with a reasonably high degree of integration between them. On the face of it, there appears scope to improve the quality of information on project costs – including by retaining a history of cost estimates and project timeframe. Effectiveness would be enhanced were project management tools systematically adopted by implementing agencies.

16.c. Institutional Capacity

(Institutional Strength — Low, Effectiveness — Low, Reform Priority — Medium)

Significant gaps in capacity are contributing to the identified weaknesses in institutional strength and effectiveness of PIM in Brazil. While there is generally a strong capacity within the MOF and the MPDG the situation across spending ministries appears variable, and interlocutors have

stressed the most significant gaps exist at the sub-national level. The complexity of Brazil's legal frameworks and the lack of systematic approaches across the PIM cycle are likely to compound the overall impact from these gaps.

Some of these capacity gaps are being compensated for by the use of specialized partners, and such practices should continue to bring benefits. For example, agencies such as EPL and EPE are setting a higher standard for planning and project preparation in their fields of logistics and energy. Financing partners such as Caixa and BNDES are improving the quality of assessment and selection and helping to identify issues in project execution. The role of the audit bodies is also strong in Brazil.

The primary areas for future focus fall into three clusters; 1) project preparation, assessment and selection 2) costing and budgeting processes for major projects; and 3) project management, execution and ex post review. Building capacity in these areas is discussed in recommendation 6.

Improvements in capacity in the above areas would be supported by the following activities. Making a central pool of funding available to improve the quality of major project proposals at the preparation stage; establishing guidelines for the appropriate methodologies and techniques; adopting standardized practices and procedures across the project cycle. In addition, undertaking more thorough project appraisals, particularly in the case of large, complex projects where specialist knowledge is needed or innovative financing methods, are proposed.
Capacity in these areas can be provided by engaging external experts/consultants to provide technical support for conducting studies, quality assurance and *ex post* evaluation.

Building capacity among officials can be promoted by creating professional qualifications and training modules suited to developing a cadre of PIM professionals. This is in addition to undertaking capacity building and training at sub-national levels. It could also be promoted by ensuring the audit bodies have the mandate and resources to conduct ex post performance audits of major projects and infrastructure funding programs to produce lessons learned.

17. Procurement

(Institutional Strength — Medium, Effectiveness — Low, Reform Priority — High)

The mission's assessment of Brazil's public procurement framework has focused on the processes applying to major public works.[39] The RDC is the most applicable framework for major projects. It potentially applies to major airports, any actions under the PAC initiative, investment under the Universal Health System, prisons, public security, urban mobility and logistics projects, and investments in the areas of science, technology and innovation.

In a *de jure* or strictly literal sense, the procurement process for major capital projects in Brazil is open and transparent. Competitive processes are ensured by the Brazilian Constitution (Item XXI, Article 37) and the RDC Law (Section II). With very limited exceptions, major projects are tendered in an open competitive process and information on current opportunities is published through online

[39] A general procurement framework (Law 8,666/93) governs all public works and services purchased by public entities and binds each level of government. A Differentiated Regime for Public Contracting (RDC, Law 12,462/11) developed ahead of the 2014 World Cup and 2016 Olympics aimed to improve the efficiency and competitiveness of major project awards, and introduced the option of awarding 'design and build' or integrated contracts. Separate legal frameworks govern PPPs (Law 11,079/04) and Concessions (Law 8,987/95).

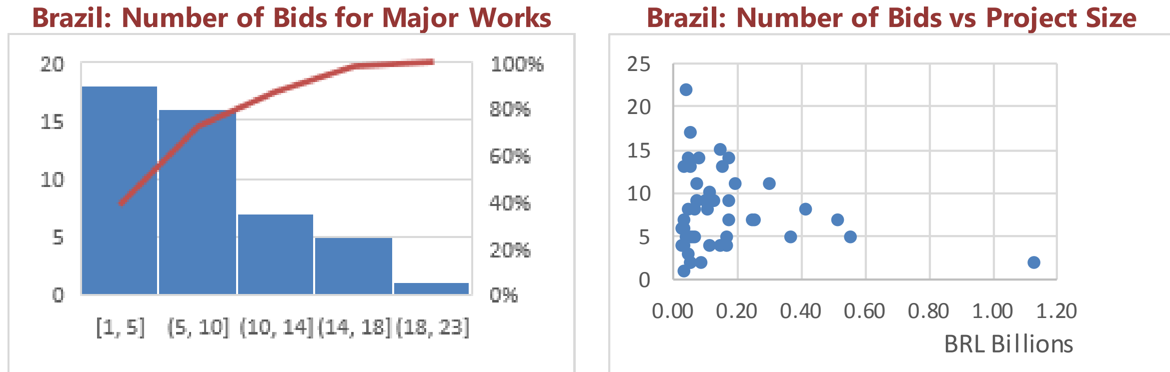
systems and the official government gazette. The RDC Law sets timeframes for the resolution of complaints and enquiries and the General Administrative law requires decisions in such matters to be taken within 15 days.

There are several aspects of the procurement framework which could be strengthened. The Government does not publish a procurement plan. The central procurement database, *ComprasNet,* appears complete and of good quality, but is not currently used to produce regular reports or analysis on the overall outcomes of the RDC framework. Work is currently underway to improve public access to information on RDC outcomes, in line with the high standard of information available on general procurement. Procurement complaints are handled in the first instance by the tendering authority, with recourse to either the TCU or the general courts. No specialized complaints or dispute resolution body exists.

In practice, there are significant barriers for foreign firms seeking to bid for public works in Brazil, with few examples of contract awards to foreign companies. Local registration requirements, very detailed and binding unit price registration requirements, and taxation arrangements on capital imports are considered barriers. Typically, a foreign firm would need to operate with a locally-led joint venture to overcome some of these difficulties. The Lava Jato investigation has revealed widespread corruption and bid-rigging practices which calls into question the extent to which competitive outcomes and value for money are being secured by the current framework. Figure 23 provides an analysis of top 50 RDC projects for roads by value in 2015 and 2016. It shows that the number of bidders seems low and is usually less than 10.
The focus of public procurement processes on the lowest price, appears to be at odds with ensuring an appropriate quality of projects and their related infrastructure and services. This may see projects with a shorter useful life or lower construction standards prevail over higher quality alternatives. This stresses the importance of full life-cycle cost assessments.

It is vital from an investment efficiency perspective that continuous improvements are made to the Brazilian procurement framework for major public works. This would entail efforts to ensure convergence with modern, international procurement practices and reconsidering how the balance between price and quality can be better struck in a Brazilian context. Key markers of success would be increasing the diversity and number of bids for major project tenders, and an increased frequency in contracts being awarded to foreign construction firms. Reforms to the framework must have a cultural dimension, and not simply be an update of the rules, in order to rebuild trust and deliver upon the standards of transparency and good process required.

Figure 23. Analysis of Top 50 RDC Projects by Value in 2015 and 2016



Source: IMF Mission.

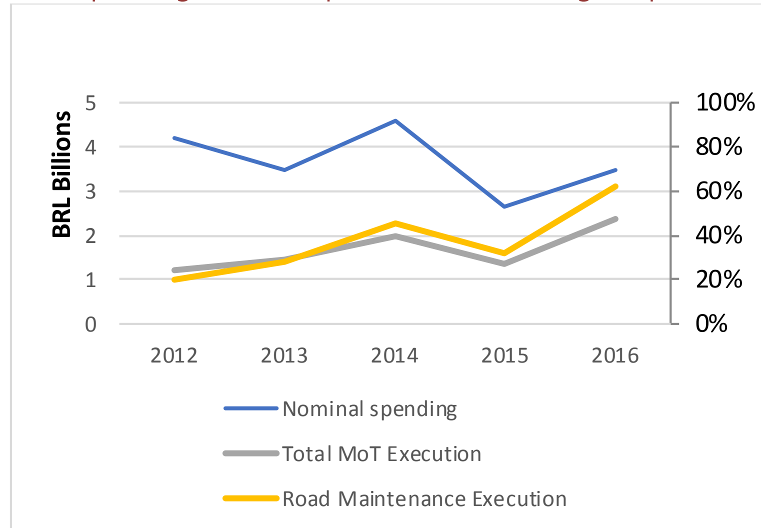
18. Maintenance

(Institutional Strength — Low, Effectiveness — Low, Reform Priority — Medium)

There does not appear to be a systematic, cross-government approach to assessing maintenance needs. The national highways program is a notable exception, which has a specific capital budget for maintenance which is included within the PAC. Elsewhere, maintenance spending for economic and social infrastructure is not systematically identified in terms of planning, annual budgets or financial execution. Ministries receive funding within their current budget allocation that is available for maintenance spending, but this is not differentiated within the category of 'other current expenses' in financial reporting and budget papers. As such, the existing systems make monitoring and the assessment of future needs rather problematic.

In practice, it is also difficult to gauge the extent to which even specific maintenance budgets are being executed. Given data gaps across the relevant sectors, the mission reviewed central government spending on road maintenance. Total activity in a given year ought to be indicated by a combination of actual payments, plus processed RAPs. It has not been possible to find reliable data on processed RAPs, so the analysis has simply looked at liquidated payments as reported on the SIOP system. Figure 24 illustrates how actual spending on road maintenance has fallen from its peak in 2014. Execution of the road maintenance budget had been very low, but has improved significantly in recent years (perhaps due the budget becoming more realistic). In 2016, spending on road maintenance was relatively more protected than the overall budget of the Ministry of Transport in relation to discretionary savings measures.

Figure 24. National Highway Maintenance Budget
[Nominal spending (LHS) and per cent of final budget liquidated (RHS)]



Source: SIOP database, MDPG.

This aspect of PIM should be improved by actions that need to be taken in other areas. One option to consider would be to assign a marker to relevant spending in the budget and accounting systems to aid in monitoring and reporting. Ensuring adequate maintenance funding is linked to the need for a multi-year approach and greater protection of the investment budget, together with requirements for full life-cycle costing of major projects and more standardized procedures and practices for other public investment.

Annex III. Fiscal Devolution - Block Grants and Formula-Based Transfers[40]

Australia: Under Australia's system of federal financial relations, it is estimated that around 45 per cent of the spending undertaken by state governments is supported by financial transfers from the central government. Public investment at the state level is around two and a half times that at the central level. Just over half, or 55 per cent, of the financial assistance provided by the central government is general in nature, and can be spent by states in line with their priorities. The remaining 45 per cent of central financial assistance to states is for specific purposes. Of the specific purpose assistance, the vast majority relate to health, education and transport. Other areas include skills and workforce development, community services and affordable housing.

State governments are responsible for public hospitals, including the associated capital works and construction. Local health authorities are responsible for running hospitals in line with state government budget allocations and service agreements negotiated with state health departments. The central government makes block-based and activity-based payments to states to contribute to the running costs of hospitals, based on the value of services and range of activities provided in the hospital. In the areas of primary and secondary education, the majority of funding is provided by state governments, but the central government provides supplementary funding through a number of channels. One example is the Capital Grants Program for Non-Government Schools, which is a block grant program. The central government makes payments directly to state governments under this program. Detailed administration of the program is a matter between the state government, block grant authorities and the school.

There are a range of road funding programs managed by the (central) Department of Infrastructure and Regional Development. Major road projects of national significance are subject to detailed assessments and project-by-project funding arrangements under a National Partnership Agreement. For local roads, funding to local councils is distributed according to a formula based on population and road length set by the Local Government Grants Commissions in each state. This funding for local roads is untied.

Canada: The Government of Canada provides significant financial support to provincial and territorial governments on an ongoing basis to assist them in the provision of programs and services. There are four main transfer programs: the Canada Health Transfer (CHT), the Canada Social Transfer (CST) and the Equalization and Territorial Formula Financing (TFF). The CHT and CST are federal transfers which support specific policy areas such as health care.

The Canada Health Transfer, or CHT, is the largest transfer to provinces and territories. It provides long-term predictable funding for health care, and supports the principles of the Canada Health Act which include: universality; comprehensiveness; portability and accessibility. CHT transfer payments are made on an equal per capita basis.

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[40] Sources: www.budget.gov.au –www.federalfinancialrelations.gov.au; www.investment.infrastructure.gov.au/funding; www.fin.gc.ca/access/fedprov-eng.asp; www.indiabudget.nic.in – Economic Survey 2016-17, Volume 2, Chapter 2, Fiscal Developments, and mission's research.

The CST is a federal block transfer to provinces and territories in support of post-secondary education, social assistance and social services, and early learning and childcare. The CST is calculated on an equal per capita basis.

The Equalization and TFF programs provide unconditional transfers to the provinces and territories. Equalization enables less prosperous provincial governments to provide their residents with public services that are comparable to those in other provinces, at reasonably comparable levels of taxation. TFF provides territorial governments with funding to support public services, in recognition of the higher cost of providing programs and services in the North.

India: Fiscal devolution in India occurs through two channels: tax devolution (with the proportion of central taxes to be shared is determined in accordance with recommendations by the independent Finance Commission) and specific purpose grants which are delivered through centrally sponsored schemes (CSS).

Prior to 2014-15, the funds for CSS were routed through two channels—the Consolidated Funds of the States and directly to the state implementing agencies. In 2014-15, direct transfers to state implementing agencies were discontinued and all transfers to states including for the CSS were routed through the Consolidated Funds of the States. There are presently 28 CSS which are essentially designed as programs where implementation and delivery is the responsibility of state and local governments. The center's role typically relates to assessing each state's eligibility for payments.

Annex IV. PPP and Concessions Framework in Brazil Relative to International Standards

While governed by relevant legislation and directives, there is no overarching strategy guiding the use of PPPs, concessions and unsolicited bids in Brazil.[41] The mission's assessment has underlined this gap (Institution 4), together with the lack of standard criteria for entering into concessions arrangements and a failure to systematically evaluate and report on the explicit and/or contingent liabilities associated with concessions contracts. This Annex provides further details on the proposals in recommendation 8.

A more robust institutional framework governing these arrangements would be designed around the following elements:

- Strong alignment with national investment priorities and compatibility with the broader process for developing a prioritized national portfolio of major investment projects,
- Decisions on project selection based on explicit criteria so that only sufficiently well-developed and high-quality projects are selected,
- Value for Money analysis undertaken prior to choosing project modality for all projects,
- Fiscal affordability considered and analysis of associated risks, which are properly disclosure and managed, and
- Strong 'gatekeeping' powers granted to the MOF and the MPDG to ensure strong alignment with broader fiscal priorities and budget processes.

International experience shows that effective PPP regulation requires a three-step approach in decision-making.

- **First, the government decides whether a project is worthwhile from an economic and social perspective.** The typical tools used are cost-benefit analyses. The decision should be embedded in the government's overall strategic investment planning framework. Explicit criteria should be developed to guide the decision-making process.
- **Second, the government determines whether a project endorsed in the first step should be implemented as traditional public procurement or a PPP.** Value for money (VfM) analyses are applied to determine which method is more efficient.
- **Third, if PPP is considered better than traditional procurement for the project, the PPP project should follow a "gateway process".** The MOF or MPDG evaluates the VfM and fiscal affordability, in line with the MTBF and the budget, at each stage before and after the approval of the project. The MOF or MPDG needs to have the right to veto or suspend PPP projects that do not meet the criteria. A PPP unit (or a public investment unit) is typically established in the MOF or MPDG to control the second and the third steps. Public investment units with a broader mandate may also control the first step.

[41] PPPs: Law No. 11709 (2005); Concessions: Law No. 8987 (1995).

The following departures from the above practices are clear in Brazil:

- **There is not yet an overarching national investment strategy and associated process for developing a prioritized portfolio of major projects.** PPPs, concessions and unsolicited bids need to be nested within an overall public investment strategy for Brazil. A National Investment Strategy should encompass all ultimate modalities of investment. Within this broader framework, there would be scope for a detailed PPP and Concessions Strategy to be developed to provide a clearer sense of priority sectors and projected outputs and outcomes, as well as details on the scope, role, appraisal and selection process, and reporting standards for projects. Examples of such a good practice include the strategic document developed the UK Treasury in 2012 to justify its use of PPPs.[42]

- ***There is no set of principles or criteria to guide the selection of public investment projects for addition to a national priority portfolio.*** Explicit criteria should ensure that only well-developed projects can be added to the portfolio, and that projects are always subject to detailed and objective cost-benefit analysis.

- ***The choice of modality for delivering worthy projects within the national priority portfolio needs to be based upon Value-for-Money (VfM) analysis.*** The concessions process in Brazil appears to pre-empt this step, with major/priority projects being developed within a centrally-coordinated concessions portfolio due to the current lack of fiscal space. However, there are also numerous examples of concessions projects being advanced on parallel tracks. A standard, published VfM methodology should inform decisions on project modality and analysis could be undertaken by a dedicated unit. A comprehensive list of all concession projects should be maintained and published.

- ***The potential fiscal implications of such projects need to be carefully evaluated, and in particular, the prospect of project risks materializing needs to be taken into account and managed within pre-determined limits.*** Experience across many countries, and also in Brazil, has demonstrated there can be significant fiscal risks associated with concessions contracts and PPPs. Failed or stalled projects can have direct budgetary consequences, in terms of the (i) additional public spending required to address unexpected viability gaps; (ii) the possibility of shortfalls in concessions payments to government compared to what may have been assumed; and (iii) direct and indirect financial exposures through public sector loans to affected projects (whether or not explicit guarantees are in place). These risks need to be evaluated, managed and disclosed both on a project-by-project and consolidated basis. In Brazil, the consolidation of data could fall for example under the responsibility of the Fiscal Risks Division at the National Treasury.

- ***Finally, a strong gatekeeping role is not assured under the current arrangements.*** This would need to be considered as the various elements of a new process are considered to ensure an appropriate degree of involvement across the various stages of project development. Ultimately, decisions about PPPs and Concessions should be linked to medium-term and annual budget decision making processes, which are currently under the responsibility of the National Treasury and the Federal Budget Office.

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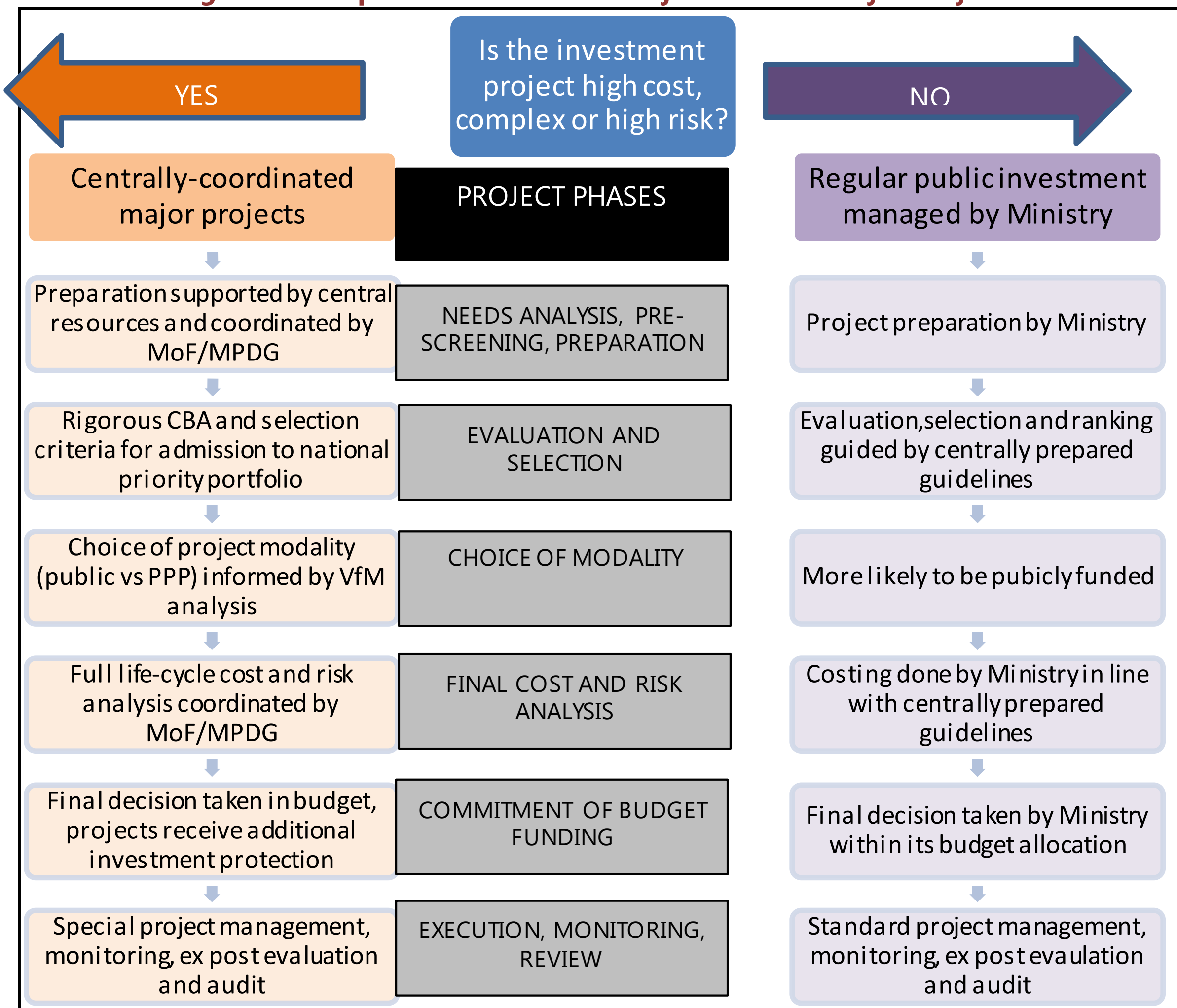
[42] HM Treasury, *A New Approach to Public-Private Partnerships*, 2012. Also see IMF, *Analyzing and Managing Fiscal Risks: Best Practices*, 2016.

Annex V. Proposed Project Preparation and Selection Process for Brazil – Major and Non-Major Projects

This report recommends adopting a standardized and rigorous approach for project preparation and selection for major and non-major projects. The diagram below illustrates the proposed approach. The first step is to determine whether the proposed project is above or below the threshold and/or is particularly complex or high risk. If yes, then the project would go through a more rigorous centrally coordinated process (left-hand side of the diagram). If not, then the project would be managed by the spending ministry as part of its planning/budgeting process but still be subject to rigorous appraisal and evaluation (right-hand side of the diagram). While the phases of the project cycle between the two types of projects would be the same, the management of the process and the level of analysis would differ.

Figure 25. Proposed Processes for Major and Non-Major Projects



Source: IMF Mission.

At each step, there is a decision point – only those projects which pass the current step moves on to the next step.

For Major Projects: The process for major projects would be initiated by the spending agency but the review and selection would be managed by a central body, including final decisions involving a Cabinet-level body.

1. **Needs analysis**: Spending ministry undertakes a needs analysis to identify gaps and weaknesses in capital investment provision. This exercise may be undertaken in line with the preparation of a sector strategy. The outcome of the analysis is a set of project ideas.
2. **Pre-screening**: The spending ministry pre-screens the project ideas against strategic policy objectives. Only those projects which are clearly in line with these objectives are taken forward to the next step. Criteria may be applied to the project ideas, and they may be ranked by their relative alignment with strategic objectives.
3. **Project preparation**: A central body with dedicated funding and staff to ensure quality projects, in partnership with the spending ministry, develops the project idea into a more detailed project proposal, using a standardized template (e.g. a project fiche), and prepare life-cycle cost estimates for the project, based on standardized costing methodology. The on-going costs of operating and maintaining the project would be calculated.
4. **Project appraisal**: The same or another central body with relevant expertise undertakes an appraisal of the project, covering financial and economic feasibility, including cost-benefit analysis and cost-effectiveness analysis; options analyses (including environmental, more detailed demand, socio-economic, technical engineering and legal/regulatory analyses), risk assessment and sensitivity analysis.
5. **Independent review of appraisal**: this step would involve a review of the appraisal by a central body, including assessing the realism of cost projections to look for potential optimism bias.
6. **Selection of project**: A central high-level body (e.g., a major projects committee) would review the project and appraisals, and decide whether to select the project for the major projects portfolio, based on clear selection criteria.
7. **Choice of funding modality**: technical staff undertake a specific value-for-money analysis of the project to determine the type of funding modality (budgetary funds or PPP/concessions) which would produce the best level of services at the least cost.
8. **Commitment of funds in budget**: Central body (Cabinet-level committee) determines which projects to fund over the medium-term, ideally through the MTBF.
9. **Project implementation, monitoring and review:** active project monitoring and reviews would take place during budget implementation, which would also look at the impact of the project; finally, an *ex post* review would take place to learn and disseminate wider lessons.

For Non-Major Projects: In contrast to the process for major projects, the process for preparing non-major projects would be managed by the spending agency as part of the medium-term budget process. Steps 1-2 are the same except they are undertaken by the spending ministry

1. **Needs analysis**: Spending ministry undertakes a needs analysis to identify gaps, the outcome of the needs analysis is a set of project ideas.
2. **Pre-screening**: The spending ministry pre-screens the project ideas against strategic policy objectives. Only those projects which are clearly in line with these objectives are taken forward to the next step

3. **Project preparation**: The spending ministry develops the project idea into a more detailed project proposal, using a standardized template (e.g. a project fiche), and preparing life-cycle cost estimates for the project, based on standardized costing methodology. The on-going costs of operating and maintaining the project would be calculated. If the projected costs of the projects are not in line with expected medium-term resources, the project proposal may be stopped.
4. **Project appraisal**: The spending agency would carry out at a minimum a basic analysis of financial and economic feasibility, which could be in conjunction with specialists in project appraisal. The extent of other analyses undertaken would depend on the size of the project.
5. **Independent review of appraisal**: Unless the project has particular risk factors, this step would not normally (but may if desired) be carried out.
6. **Selection of project**: The spending ministry would review the project and financial/economic analyses, and decide whether to select the project, based on clear selection criteria.
7. **Choice of funding modality**: as the project is likely to be publicly funding, this step would not normally be required.
8. **Commitment of funds in budget**: As part of its normal budget process, the spending ministry would determine its budget proposal within its given ceiling, determining which projects to fund over the medium-term, ideally through the MTBF.
9. **Project implementation, monitoring and review:** active project monitoring and reviews would take place during budget implementation, which would also look at the impact of the project; finally, an *ex post* review would take place to learn and disseminate wider lessons.