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TECHNICAL ASSISTANCE REPORT— PUBLIC INVESTMENT MANAGEMENT ASSESSMENT

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Mexico

Public Investment Management Assessment

Teresa Curristine, Rui Monteiro, Lewis Murara, Mary Betley, Richard Emery, Fernando Blanco Cossio, Luis Barajas Gonzalez, Alejandro Rasteletti, Francisco Rodriguez, and Guadalupe Toscano.

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ABBREVIATIONS AND ACRONYMS

BBR	Balanced Budget Rule
CEPEP	Center of Studies for the Preparation of Socio-economic Evaluations of Investment
CFE	Comisión Federal de Electricidad (public corporation for the electricity sector)
COFECE	Comisión Federal de Competencia Económica (competition authority)
COMPRANET	Mexico's electronic public procurement system
CRE	Comisión Reguladora de Energía (energy sector regulator)
EME	Emerging Market Economies
EPE	Empresas Productivas del Estado (category of public corporation e.g. PEMEX and CFE)
FARP	Fondo de Apoyo para la Reestructura de Pensiones
FEIEF	Fondo de Estabilización de Ingresos de las Entidades Federativas
FEIP	Fondo de Estabilización de los Ingresos Petroleros
FIES	Fideicomiso para la Infraestructura en los Estados
FONADIN	Fondo Nacional de Infraestructura
FRL	Fiscal Responsibility Law
GDP	Gross Domestic Product
IFT	Instituto Federal de Telecomunicaciones (telecommunications sector regulator)
IMSS	Instituto Mexicano del Seguro Social
IRR	Internal Rate of Return
ISSSTE	Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado
IU	Unidad de Inversiones (Investment Unit of SHCP)
LAC	Latin American Countries
MFP	Mecanismo Financiero Piloto
MOF	Ministry of Finance - SHCP
NDP	National Development Plan (Plan Nacional de Desarollo)
NIP	National Infrastructure Plan (Programa Nacional de Infraestructura)
NPV	Net Present Value
PCs	Public Corporations
PEMEX	Petróleos Mexicanos (public corporation for oil and gas extraction)
PFRAM	PPP Fiscal Risk Assessment Model
PIDIREGAS	Proyectos de Inversion Diferida en el Registro del Gasto
PIM	Public Investment Management
PIMA	Public Investment Management Assessment
PPP	Public Private Partnerships
PSBR	Public Sector Borrowing Requirements
SHCP	Secretaria de Hacienda y Crédito Público (Ministry of Finance)
SNG	Subnational Government
UPCP	Unidad de Política y Control Presupuestal (Budget Control Unit at SHCP)

PREFACE

At the request of the Mexican authorities, a team from the IMF's Fiscal Affairs Department (FAD) visited Mexico City, during the period November 7 – 21, 2018 to conduct a Public Investment Management Assessment (PIMA). The mission team was led by Ms. Teresa Curristine (FAD) and comprised of Lewis Murara and Rui Monteiro (both FAD), Mary Betley and Dick Emery (both IMF FAD Experts), Alejandro Rasteletti (IADB), and Maria Guadalupe Toscano, Fernando Andres Blanco Cossio, Francisco Rodriguez and Luis Barajas Gonzalez (World Bank).

The team met Mr. Marco Rivera, Head of the Investment Unit of the Secretaría de Hacienda y Crédito Público (SHCP) and senior staff, including: Ms. Luisa Hurtado, Armando Montero, Carlos Guevara, Diana Manuel and Fernando Careaga.

During the mission, the team had separate meetings with several of the offices of the SHCP, including the Investment Unit, the Economic Planning Unit, the Budgetary Policy and Control Unit, the Directorate-General for Programing and Budgeting A and B, the Subnational Governments Coordination Unit, the Performance Evaluation Unit, the Government Accounting Unit, the Treasury Unit, and the Comisión Intersecretarial de Gasto Público, Financiamiento y Desincorporación.

Outside the SHCP, the mission team met with officials from two Mexican states, Estado de Mexico and Nuevo León, with procurement officials from the Ministry of Public Administration, with representatives of PEMEX, CONAGUA, BANOBRAS, FONADIN, the Ministries of Energy, Health, Communications and Transport, and the Supreme Audit Institution.

For the closing meetings, the mission met with Ms. Ursula Carreño, the Undersecretary of Expenditures of SHCP at that time. The mission also met with the transition team Mr. Gerardo Esquivel, then expected to become the new Undersecretary of Expenditures (and later appointed to Banco de Mexico) and Mr. Jorge Nuño the incoming head of the Investment Unit.

During the mission, the team conducted two workshops. For the first workshop on the PIMA methodology, staff from SHCP and spending ministers attended. For the second workshop which presented the preliminary scores and results staff from the Investment Unit (IU) and SHCP attended.

The mission team would like to thank the Mexican authorities for their hospitality and cooperation and for their participation in constructive discussions on all topics raised during the mission. The mission would especially like to thank Ms. Luisa Hurtado, Mr. Fernando Careaga, Ms. Fernanda Arenas, Ms. Erika Moreno and Ms. Fanny Montoya for their excellent support in organizing the mission, setting up meetings and providing documentation.

EXECUTIVE SUMMARY

The Federation of Mexico, with 31 States and Mexico City, has a population of 129 million people with large and diverse infrastructure needs. Successive Mexican governments have recognized the importance of public investment for promoting economic growth and have given priority to infrastructure needs in the National Development Plan and the National Infrastructure Program. Some progress has been made; however, large infrastructure needs remain.

Over the last fifteen years, public investment in Mexico has lagged behind the averages for Emerging Market Economics (EME) and Latin American Countries (LAC). Over the fifteen-year period (2001-2015) general government investment averaged 4.7 percent of GDP, compared with 7.1 percent for EME and 6 percent for LAC. Despite the privatization programs started in the 1980s and continued in subsequent decades, the stock of public capital in Mexico has been high in comparative terms, due to the diverse set of economic activities operated by government and public corporations (PC), and high rates of public investment in the 1990s. Although it has declined by 81 percent of GDP over the previous two decades, capital stock at 104 percent of GDP in 2015 remains higher than the average of all comparators including the OECD.

Public investment is an important driver of economic growth, and meeting infrastructure needs while maintaining sound fiscal policies requires efficiency improvements. The Mexican government's fiscal consolidation efforts have placed debt on a downward trajectory; however, public investment has been cut back in the process. The administration of Mr. López Obrador has committed to preserving fiscal discipline, which is essential to maintain debt on a downward path and recognizes the importance of improving the efficiency of public spending.

There is significant room to improve public investment efficiency in Mexico. The efficiency gap between Mexico and the most efficient countries with comparable levels of public capital stock per capita is 40 percent. This gap is significantly wider than the averages for the OECD (13 percent), EME (27 percent) and LAC (29 percent). The perceptions of infrastructure quality in Mexico has improved over the last decade; however, in terms of access to physical infrastructure Mexico lags behind comparators, and significantly behind OECD countries, especially in roads. In other words, while the perceived quality of infrastructure has improved, Mexico could generate more and better infrastructure with similar public capital stock per capita by improving public investment efficiency.

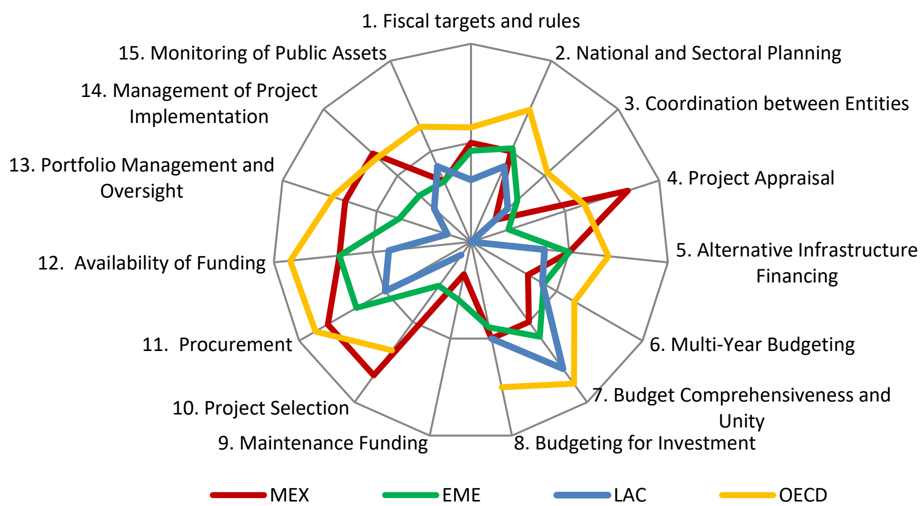
Strengthening public investment management (PIM) will help to improve public investment efficiency and maximize the return from infrastructure investment. This report uses the IMF's Public Investment Management Assessment (PIMA) methodology to review PIM in

Mexico.[1] It evaluates 15 key institutions in terms of their institutional strength and effectiveness across the planning, allocation, and implementation phases of the PIM cycle, identifies strengths and weaknesses in the existing PIM framework, and produces an action plan to improve PIM.[2]

This assessment found that most of Mexico's institutions scored as medium strength in terms of institutional design and effectiveness. As in most countries, there is a difference between what is on paper, in terms of design features and legal frameworks, and actual practices. For some institutions, implementation is variable, and effectiveness is lower, particularly for national and sectoral planning, medium-term budgeting, procurement, portfolio management and asset management. Nonetheless, most institutions still score as medium in terms of effectiveness.

Mexico has stronger PIM institutional design scores at the federal level than the averages for EME and LAC countries, but they are much weaker than the OECD average (See Figure 1). Reflecting recently implemented reforms, institutions which are stronger than all comparators, including the OECD, are project selection, project appraisal and portfolio management. This is particularly noteworthy as these institutions tend to be amongst the weakest in many countries.

Figure 1. Strength of Institutional Design of Public Investment Management



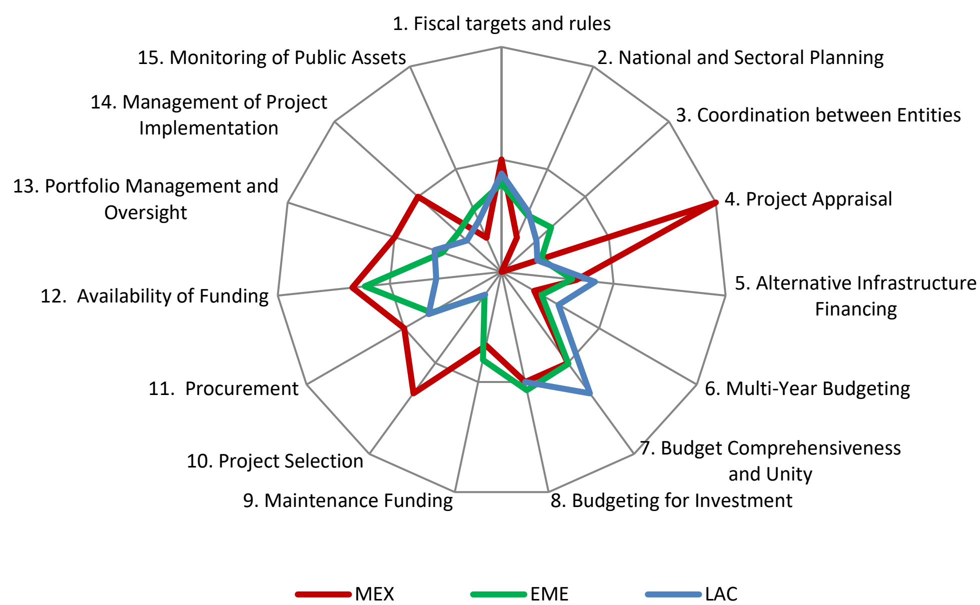
Source: IMF Staff

[1] IMF Staff Report "Making Public Investment More Efficient", 2015. http://www.imf.org/external/np/pp/eng/2015/061115.pdf

[2] Table 1 provides a Summary Assessment of the Institutions and Table 2 presents an action plan.

Some PIM institutions, however, are below the EME and LAC averages in both in institutional design and effectiveness (See Figure 2). These include: coordination between entities,[3] medium-term budgeting, budget comprehensiveness and unity, maintenance funding and asset management. Some of these weaknesses reflect a PIM system that is fragmented, very compliance-focused, gives greater priority to compliance over efficiency and outcomes, and lacks a medium-term orientation. For federal systems, like Mexico, fragmentation is an issue, especially when there are many players and approaches for delivering and financing infrastructure.

Figure 2. Effectiveness of Public Investment Management Institutions



Source: IMF Staff

Table 2 presents this report's main recommendations for improving PIM and an action plan for implementing these recommendations over the short and medium term. Chapter IV provides detailed discussions on each recommendation. Below is a list of the recommended high-priority reforms.

Improve the medium-term fiscal framework (MTFF) and strengthen the independent oversight of fiscal planning. To achieve this, include a medium-term target for the public sector borrowing requirement (PSBR), introduce an independent body to review and assess the quality of the macro-fiscal projections, and amend the fiscal rule's escape clause so it is only used in

[3] In Mexico, these entities include subnational governments that is the "federative entities" (31 states plus Mexico City) which have a significant degree of autonomy and the municipalities.

exceptional circumstances. In addition, expand the economic assumptions (*Pre-Criteria*) report to include more information on fiscal strategy and analyses of medium-term fiscal parameters.

Improve the effectiveness of national and sector strategies to guide investment project planning. Prepare national and sector plans within a realistic medium-term resource framework and concentrate plans on a limited number of high-priority strategic objectives that can realistically be achieved within the available resources.

Introduce a rolling medium-term budget framework (MTBF) for both capital and current expenditures, which will support more strategic and efficient investment planning. Strengthening the medium-term focus will create a more realistic alignment between budget, planning and the availability of resources.

Develop mechanisms for coordination of public investment plans at federal and subnational levels to enhance efficiency and synergies of planning and investment prioritization. Consider establishing a joint federal and state investment coordination committee(s) to help strengthen medium-term planning and encourage active consultation and regular sharing of information between Federal and subnational governments on public investment.

Revise procurement procedures and regulations to promote more open and competitive procurement. In the short term, review and implement reform proposals not requiring legislative changes, implement a program to re-train all procurement officials to promote a culture of competitive procurement and extend the use of standardized tender documents to all main procuring entities. In the medium term, develop a single Public Procurement Law based on a review of procurement and prevent the extensive use of exemptions from the competitive route through stricter enforcement.

Develop a systematic approach for maintenance planning. The Ministry of Finance, SHCP should require agencies to establish program-appropriate maintenance standards. It is important to identify the level of spending required to maintain infrastructure at a steady-state level and ensure adequate funding for maintenance.

***Other medium priority recommendations include*:** Increasing the comprehensiveness of public investment project information in the project pipeline register; developing a system to track and report on project cost over/under-runs and implementation delays, and systematically conducting ex-post reviews for most major projects. It is important to improve agencies' capacity to plan and implement projects effectively. This can be facilitated by providing commitment ceilings to ministries for the full fiscal year and requiring ministries to prepare implementation plans prior to congressional budget approval. The monitoring of assets can be improved by reviewing the current accounting practices to reflect better the value of non-financial assets and introducing asset-specific assumptions to guide the depreciation of fixed assets.

Table 1. Summary Assessment					
Phase/Institution			Institutional Strength	Effectiveness	Reform priority
A. Planning	1	Fiscal targets and rules	**Medium.** Fiscal rules targeting the deficit and expenditures are in place. They do not cover general government and there is no debt target or limit.	**Medium.** Only limited medium-term focus, the PSBR focuses on an annual target. The escape clause has been used a number of times over the last decade.	High
	2	National and sectoral planning	**Medium.** A clear national and sectoral planning framework is in place but does not really guide ministries' investment planning.	**Low.** Strategies are not based on likely resource availability, costing information is very limited, and investment budget allocations are made project by project.	High
	3	Coordination between entities	**Low.** There are no coordination mechanisms to ensure Federal and subnational plans are shared and used to guide planning decisions at each level	**Low.** Information on the value of transfers from Federal government to individual subnational levels comes very late for efficient subnational planning.	High
	4	Project appraisal	**High.** A standard methodology for project appraisal is in place, and proposed projects are legally required to be registered in the *cartera* and must undergo financial and socio-economic analysis, including risks.	**High**. The socio-economic analyses for projects registered in the *cartera* are published and they show a good level of detail and in some cases include risk mitigation plans.	Low
	5	Alternative infrastructure financing	**Medium.** Competition in some infrastructure markets is required, regulators were recently established, and a PPP framework was established. Some PCs and trust funds are legally allowed to plan and implement projects with minimum oversight by the SHCP.	**Medium.** Reforms have improved access to infrastructure markets and promoted competition but need further implementation. The PPP Unit faces a conflict of interest, operating as both PPP promoter and PPP filter. Investment plans of some PCs and trust funds are not systematically monitored.	Medium
B. Allocation	6	Multi-year budgeting	**Medium**. Projections over the life of projects are set out, but there are no multi-year budgets or ceilings for capital expenditure by ministry or program.	**Low.** Project details are broken down by year, but the multi-year nature of capital projects is not recognized in budget decisions.	High
	7	Budget comprehensive-ness and unity	**Medium.** The information on capital investment is generally comprehensive, but current and capital spending decisions are not integrated.	**Medium.** The budget does not present comprehensive tables showing capital spending from all sources of funding**.**	Low
	8	Budgeting for investment	**Medium.** Funding requirements for some on-going capital projects are given priority and transfers from capital to current spending is limited.	**Medium.** Multi-year capital projects are subject to annual appropriations but future funding requirements for on-going programs are prioritized in budget formulation.	Low
	9	Maintenance funding	**Low.** There are no standardized requirements for maintenance, but some agencies establish and monitor maintenance requirements.	**Medium**. Some agencies budget for routine maintenance and capital improvements, but improvements compete with new projects for funding.	High
	10	Project selection	**High.** Procedures for project selection are set out in legislation and in guidelines, and projects using budget funds are subject to these procedures, including those added by Congress.	**Medium.** While a pipeline of good quality-assessed projects is in place and active projects in the pipeline are eligible for funding for 3 years, the funding focus is on the coming budget year, not a forward focus for project planning. Coverage is limited to Federally-funded projects.	Low
C. Implementation	11	Procurement	**High.** The law requires all projects to be tendered competitively, and relevant information is required to be provided to the public through CompraNet. Complaints follow an independent and transparent review process.	**Medium.** Major projects are tendered competitively. Those subject to public tender face some restrictions to effective competition. Most non-major projects are not competitively procured, due to the frequent use of exemption clauses.	High
	12	Availability of funding	**Medium.** Monthly cashflow forecasts are prepared, and donor funding is integrated into the TSA, but annual commitments ceilings are not provided.	**Medium.** Ongoing projects are not protected from unscheduled cutbacks, and although the Treasury strives to pay invoices within 48 hours, there is no systematic monitoring of payment delays.	Medium
	13	Portfolio management and oversight	**Medium.** Financial and physical project implementation monitoring is centralized, reallocation procedures within projects are well-defined; and ex-post reviews of some major projects are conducted.	**Medium.** Data on cost over/underruns, as well as on implementation delays, is not readily available, nor used for decision-making or learning purposes.	Medium
	14	Management of project implementation	**Medium.** Detailed financial plans are prepared prior to budget approval, but implementation plans are prepared only after budget approval.	**Medium**. Preparation of implementation plans after budget approval by Congress can lead to delays in project implementation.	Medium
	15	Monitoring of public assets	**Medium**. Non-financial assets reported in the government financial statements exclude large assets such as airports and highways.	**Low**. The mechanisms to value and revalue government assets are not integrated with government accounting, which only uses historical cost, with no depreciation.	Medium

Table 2. Indicative Action Plan			
Action	**2019**	**2020**	**2021**
High Priority Reforms			
Recommendation 1: Strengthen fiscal discipline by improving the MTFF, the application of fiscal rules (FRs) and establishing independent oversight of fiscal planning			
Strengthen application of fiscal rules.	Amend the FRL to restrict the use of the escape clause to exceptional circumstances: cases of very significant output shocks and significant disruptions in the oil price. Establish a provision requiring the specification of a clear path back to the fiscal rule after the exceptional circumstance clause is invoked.		
Strengthen the medium-term fiscal framework (MTFF)		In the Pre-Criteria report include more information on fiscal strategy and analyses of fiscal policy and medium-term fiscal parameters. Provide more medium-term disaggregated expenditure projections. Require PCs and entities with PPP contracts to provide annual reports on their fiscal risks to SHCP.	Develop a medium-term debt limit for general government (Federal plus subnational levels), initially for internal purposes, then externally.
Strengthen independent oversight	Introduce independent body to review macro-fiscal projections and compliance with FRs and a debt sustainability path.		
Recommendation 2: Improve the effectiveness of national and sector strategies to guide investment project planning			
Improve the effectiveness of national and sector strategies to guide investment project planning	Prepare the national development plan and sector programs within a realistic medium-term resource framework. Concentrate in the national and sector plans on a limited number of high priority strategic objectives that can realistically be achieved within available resources. Provide realistic outcomes and targets for key strategic objectives over the medium-term, based on available resources. Link the strategic objectives in the national/sector plans to the investment project allocations in the rolling medium-term budget framework.	Make arrangements to review the national and sector plans at the mid-point (after 3 years) to reflect changes in economic or policy circumstances. Train SHCP and ministries staff on the development of the results framework for investment projects and its linkage to the sector/institutional programs.	

Recommendation 3: Strengthen medium-term budget planning			
Introduce a rolling medium-term budget framework (MTBF) for both capital and current expenditures	Develop the methodology for preparing a rolling medium-term budget framework process to cover both current and capital expenditures. Draft Guidelines for the preparation of the rolling MTBF. Train staff in SHCP and ministries in the new methodology.	In conjunction with the strengthened MTBF, develop top-down medium-term ceilings by ministry earlier in the process (at the beginning of budget preparation). Develop a methodology and simple model for ministries to prepare expenditure baseline projections for their programs, for both current and capital expenditures. Train SHCP and ministry staff in the preparation of baseline projections.	Develop baseline estimates of existing project spending and identify available fiscal space for new projects. Establish a rolling investment costing exercise linked to the MTBF and consistent with expected results and investment goals for overall federal investment.
Recommendation 4: Improve the coordination between federal and subnational governments			
Improve the mechanisms for coordination of public investment plans of federal and subnational levels.	Consider establishing a joint federal and state investment coordination committee(s). Require subnational governments accessing Federal funds to provide annual reports on their fiscal risks, including explicit and implicit contingent liabilities.	Review the Convenios structure and the operating rules for Ramo 23.	Include in the Registry all subnational investment projects funded under Ramo 33. Ensure that SHCP investment systems (SEFIR, RFT, Modulo Cartera) interact and allow for a comprehensive overview of federal resources transferred to States as well as systematic follow up.
Recommendation 5: Develop a standard methodology for determining maintenance funding requirements, for all types of infrastructure assets, and budget for them			
Increase the comprehensiveness of public investment project information in the *cartera*	Require agencies to establish, submit program-appropriate maintenance standards to SHCP and regularly survey their capital stock to determine maintenance needs and funding requirements. SHCP to provide summary presentation on maintenance, highlighting expenditures by agency and program.	SHCP to review maintenance (operations, needs and expenditures) to determine whether appropriate resources are being allocated to maintain public capital stock. Expand registers of infrastructure assets and ensure that they are updated on a regular basis to support determination of appropriate maintenance levels.	
Recommendation 6: Promote more competitive tendering and pro-competition culture among public procurement officials			
Reform public procurement	Review and compile the concrete recommendations on public procurement presented by COFECE, OECD and other entities, identifying the ones that can be implemented without changes in law. Disseminate those recommendations among procurement officials.	Review public procurement practices and results, identifying opportunities for improvement within the current legal framework.	Consolidate federal public procurement legislation into a single Public Procurement Law. Promote the harmonization of the legal frameworks across the levels of government.

Train procurement officials	Structure a training program for procurement officials, aiming to promote pro-competitive innovation in public procurement. Implement the training program.	Extend training to subnational government procurement officials.	
Develop standard tender documentation	Establish deadlines for each main government procuring entity to produce standardized tender documents and submit them to COFECE for review.	Make the use of standard procurement documents mandatory.	
Monitor public procurement	Define performance indicators for public procurement and use electronic procurement platforms to monitor them.	Publish periodic analytical reports on the performance of public procurement.	
Medium-Priority Action Plan			
Recommendation 7: **Improve the comprehensiveness and quality of public investment planning**			
Require extra-budgetary entities (non-organic funds) and all public corporations to provide the IU with information on their planned public investment projects.	Require extra-budgetary entities (non-organic funds) and all public corporations to provide the Investment Unit with information on their planned public investment projects.	Standardize the formulation and evaluation requirements for projects funded through Ramo 23. Create a registry of PC's and extrabudgetary units' investment projects funded under Ramo 33.	Introduce a process of external reviews of cost-benefit analyses for key investment projects.
Recommendation 8: **Improve predictability of funding for major capital projects**			
Manage capital projects within commitment ceilings	Update treasury systems to provide commitment ceilings to ministries to allow them to manage capital projects within the ceilings.		
Prepare procurement plans earlier	Prepare a provisional procurement plan and a commitment plan, two to three months prior to the beginning of fiscal year to speed up project implementation as soon as the budget is passed.		
Develop multi-year appropriations		Introduce carry-forward of budget authority for multi-year capital projects within clear and transparent guidelines and limits.	
Recommendation 9: **Strengthen the monitoring of cost overruns and project delays**			
Track and report on cost over/under-runs and delays	Prepare quarterly summary tables on cost over/underruns and implementation delays for policy makers, pulling data from information provided by ministries in the current database.	Use this information to identify areas of risk and to improve implementation.	
Move the focus of ex-post reviews of major projects from compliance towards efficiency	Systematically conduct ex-post reviews for most major projects, identify areas of risk, and use the results in the budget process.	Improve the scope of ex-post reviews for major projects to cover not only costs and deliverables, but also output, impact and alternative modes for project delivery.	

Recommendation 10: **Enhance capital projects management and control during the execution stage**			
Prepare project implementation plans for major projects, prior to budget approval	Prepare and submit project implementation plans for major projects at the same time as the project's financial plan. Communicate project implementation plans to the Supreme Audit Institution for inclusion in its ex-post projects audit plan.		
Recommendation 11: Improve accounting and valuation of assets			
Review the current accounting practices to improve comprehensiveness and valuation of non-financial assets	Recognize airports, highways and other large assets as non-financial assets in the government's balance sheet. Introduce asset-specific assumptions to guide the depreciation of fixed assets.	Integrate the work of the Valuation Institute within the SHCP with the Government Accounting Unit capturing the value of government assets based on actual valuations and/or revaluations.	Review the accounting standards for non-financial assets valuation and revaluation.

I. INTRODUCTION

1. Since the global financial crisis, several ambitious economic and social reforms have been introduced in Mexico mostly notably under the 2012 *Pacto por México*. The reforms aimed to promote economic growth, improve fiscal management, address regional and economic inequalities, improve coverage and results in health and education, and open the telecommunications and energy sectors to competition. The National Development Plan for 2013-2018 reflected these ambitious goals.

2. In many areas, considerable progress has been made but design and implementation gaps remain. Reforms to the telecommunication sector have increased competition. The energy reform is opening this sector to private investment and competition, but more remains to be done. Education enrollment rates for upper secondary and tertiary education has increased albeit with regional differences.[4] The 2013 tax reform increased non-oil revenues, helping to reduce Mexican public finances' dependency on oil, although it remains significant. Sound fiscal management, supported by the 2013 reform of the Fiscal Responsibility Law (FRL), facilitated the implementation of the fiscal consolidation program adopted after the 2014 drop in oil prices. This program has recently succeeded in reducing debt which had been increasing steadily over the last decade. Sound fiscal policies need to continue if debt is to remain on a downward path.

3. Despite this progress, challenges remain. Inequality is almost twice the OECD average, with significant regional inequalities and limited capacity in many states. Corruption and the perception of corruption are key issues and violent crime is at record highs.[5] Public expenditure increased significantly in the last decade including on social spending and public security.[6] These changes combined with long-term demographic trends will continue to place pressure on budgetary resources that are increasingly earmarked or mandatory, thus limiting space for discretionary spending. Despite recent reforms, non-oil tax revenues remain below regional and OECD peers. Economic growth has on average been below three percent for the past five years and infrastructure needs remain high.

4. Public investment (PI) is an important driver for economic growth, but the challenge, given the current fiscal constraints, is finding resources for infrastructure spending. Increasing non-oil tax revenues combined with restraining current spending, and improving the efficiency of spending, would provide fiscal space. The new administration is emphasizing improving public spending efficiency to create more fiscal space for PI and other initiatives.

5. Strengthening public investment management (PIM) will help improve public investment efficiency. This report identifies the strengths and weaknesses in existing PIM practices in Mexico and produces recommendations and an operational priority action plan to improve PIM in the short-to-medium term. The IMF, in collaboration with the World Bank and the IADB, stands ready to provide follow-up support to implement the priority action plan.

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[4] OECD 2017, *Towards a Stronger and More Inclusive Mexico*

[5] OECD 2018, *Getting it Right: Strategic Priorities for Mexico*

[6] World Bank 2016, *Mexico Public Expenditure Review*

II. PUBLIC INVESTMENT IN MEXICO: CONTEXT

6. This chapter provides a comparative overview of public investment trends in Mexico. Section A describes recent trends in public investment and in capital stock and Section B explains the composition of public investment.

A. Trends in Public Investment and Capital Stock

7. For the past fifteen years, general government investment in Mexico has lagged behind the averages for Emerging Market Economies (EMEs) and Latin American countries (LAC). Over the fifteen-year period (2001-2015) general government investment has averaged 4.7 percent of GDP, below the 7.1 percent average for EME and the 6 percent average for LAC, albeit above the OECD average of 3.7 percent. During the 1990s, general government investment in Mexico was higher than comparators but since 2001, it has been consistently below EMEs and LAC averages (Figure 3). With the fiscal stimulus package introduced by the Mexico government during the global financial crisis, public investment levels increased to above 5 percent of GDP between 2008 and 2011; however public investment subsequently declined with the fiscal consolidation and fall in oil revenues.[7]

8. The decline in public investment has been accompanied by a rise in private investment. In 2015, public investment in Mexico accounted for less than 4 percent of GDP, down from 10 percent of GDP in 1990, while private investment rose from 9 percent of GDP in 1995 to 18 percent of GDP in 2015. Over this period (1995-2015), the level of private investment in Mexico, on average,16 percent of GDP has been near the EME average of 17 percent. This level of private investment has helped to keep Mexico's total investment at a stable long-term average of about 21 percent of GDP for the last two decades (Figure 4).

9. Mexico's public capital stock has been consistently higher than the EME, LAC and the OECD. This reflects relatively high public investment spending during the decades before 2000. The level of the capital stock, however, started declining sharply after 1995. It went from a high of 185 percent of GDP in 1995 to 104 percent of GDP in 2015. During the period 1995-2015, Mexico's public capital stock fell by 81 percentage of GDP, compared with EMEs' public capital stock which fell by 12 percentage points, while LAC's fell by only 1 percentage of GDP (Figure 5). Despite this decline, Mexico's public capital stock per capita still compares generally well among a selected group of advanced economies and EMEs, standing at almost US$ 14.6 thousand compared to an average of US$ 12 thousand for the group of countries in Figure 6.

[7] IMF 2015, *Fiscal Policy in Latin America: Lessons and Legacies of the Global Financial Crisis*.

Figure 3. General Government Investment
(Nominal, % GDP)

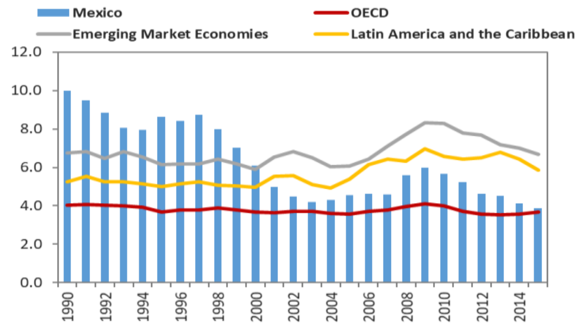
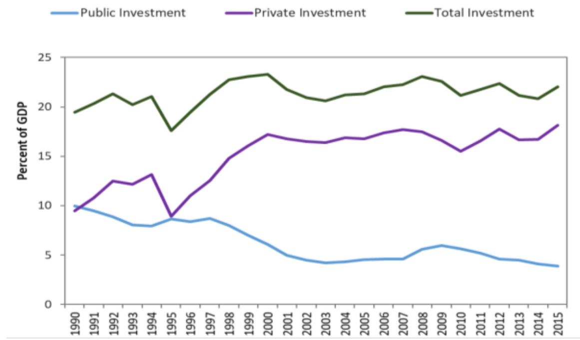


Figure 4. 2015 Public and Private Investment
(Nominal %GDP)



Sources: WEO and IMF staff estimates based on official data.

Figure 5. Public Capital Stock
(Nominal, % GDP)

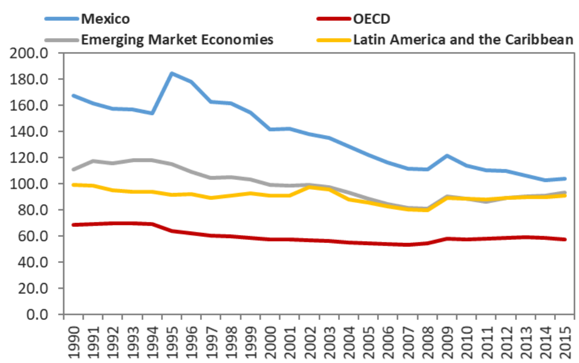
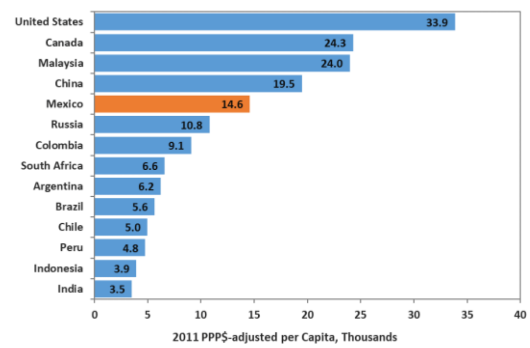


Figure 6. 2015 Public Capital Stock per Capita
(thousands)



Sources: WEO and WB database and IMF staff estimates based on official data.

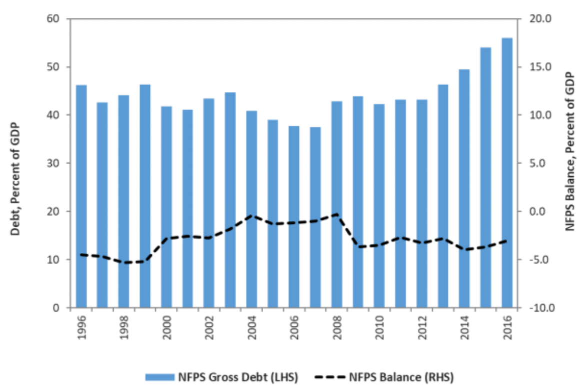
10. Mexico's ability to increase its public investment has been impeded by government debt and declining oil revenues. General government gross debt has until recently been increasing and stood at 56 percent of GDP in 2016, up from 38 percent of GDP a decade earlier, and the non-financial public sector balance has remained negative for the last decade (Figure 7). In late 2014, the government faced a sharp drop in oil prices and a continuing decline in oil revenues**.** Non-oil tax revenue performance lags behind regional and international peers. Despite recent tax reforms, which have increased revenues, Mexico's tax-to-GDP ratio continues to be the lowest in the OECD, with particularly low VAT efficiency.[8]

11. The government's recent fiscal consolidation efforts have put the debt-to-GDP ratio on a downward trajectory. To deal with the declines in oil revenues, the government

[8] IMF 2018, *Mexico Staff Report for the 2018 Article IV Consultation*.

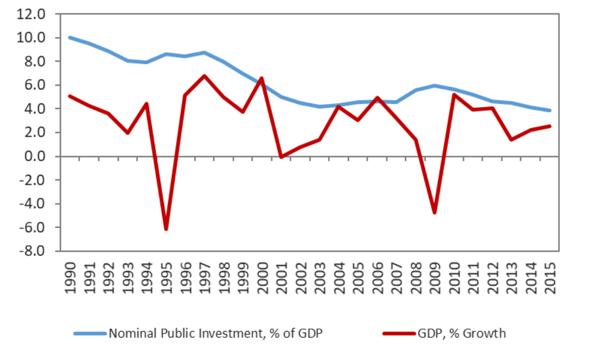
introduced a fiscal consolidation package focused on reducing expenditure. As a result, debt declined to 54.6 percent of GDP in 2017 and is projected to go down to 53.9 percent in 2019.[9] However, public investment has also continued to decline and faced sharp cuts as part of the fiscal consolidation reforms.

Figure 7. Non-Financial Public-Sector Balance and Gross Debt



Source: WEO and IMF staff estimates.

Figure 8. Public Investment (% GDP) **and GDP Growth** (% Growth)



Sources: WEO and staff estimates based on official data.

12. Over the past twenty-five years, public investment in Mexico has presented a downward trend. Over the period, GDP growth has been quite volatile, while public investment has remained on a downward trend (Figure 8). Public investment levels are also impacted by the volatility of oil revenues. Oil revenues, despite recent declines, continue to play a significant role, and account for around one third of total public revenues over the last decade.[10] The volatility of oil revenues influences the government's capacity to fund public investment. Public investment is a discretionary expenditure and thus particularly vulnerable when revenue declines.

13. Mexico allocates less than LAC to capital spending but almost the same to current spending. Between 2011-2015, Mexico spent an average of 4.5 percent of GDP on capital spending which is less than the LAC average of 6.3 percent of GDP. In 2015, current spending accounted for 23.5 percent of GDP, around the LAC average of 23.4 percent of GDP (Figure 9). In the past decade, Mexico's current spending has increased steadily to reach the average of regional peers. Mandatory expenditures represent over 60 percent of the budget while another 20 percent is technically discretionary, but effectively is inflexible spending.[11] Wages, pensions (including social assistance benefits), subsidies and transfers account for 81 percent of Mexico's current spending. A recent IMF report, suggested that reducing expenditure rigidities and

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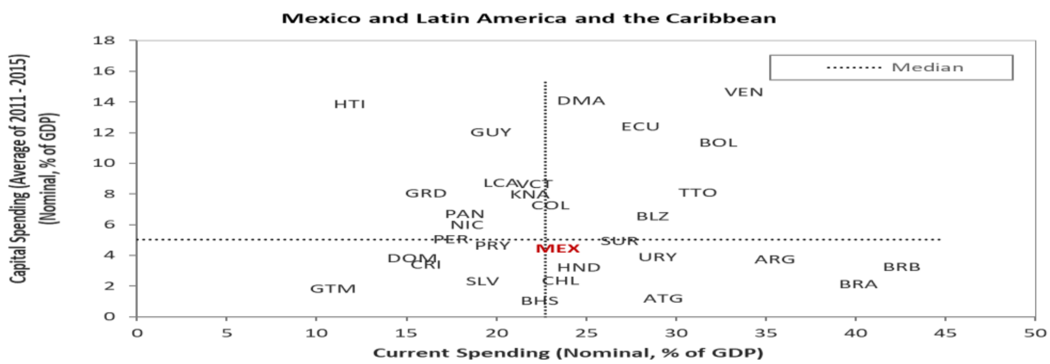
[9] IMF, *Mexico Staff Report for the 2018 Article IV Consultation*.

[10] World Bank 2016, *Mexico Public Expenditure Review*.

[11] Ibid

improving the efficiency of current spending combined with tax reforms could create fiscal space for more public investment.[12]

Figure 9. Current Spending (2015) vs. Capital Spending — Average of Last 5 Years
(Nominal, % GDP)



Sources: WEO and staff estimates based on official data.

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[12] See for example, IMF 2018, *Mexico Staff Report for the 2018 Article IV Consultation*

B. Composition of Public Investment

14. Public investment in economic and social infrastructure accounts for about 94 percent of total investment, which is higher than in EMEs. In 2015, the share of total public investment allocated to economic and social infrastructure in Mexico was 59 percent and 35 percent, respectively (Figure 10). By comparison, EMEs allocated an average of 45.3 percent of their total public investment to economic infrastructure and 26.8 percent to social infrastructure (Figure 11).

Figure 10. Mexico: Public Investment by Function 1/2/3
(2015, Percent of total public investment)

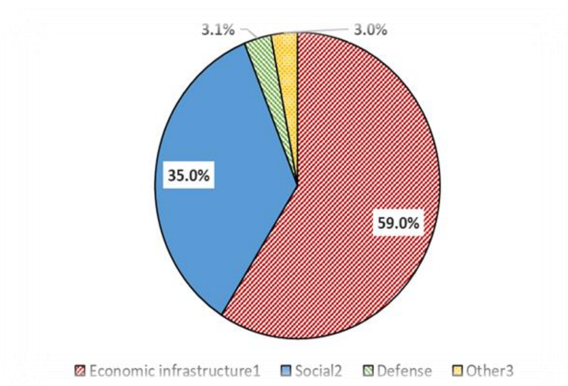
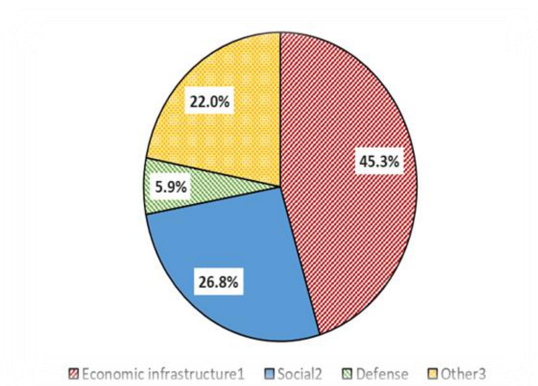


Figure 11. EMEs: Public Investment by Function 1/2/3
(2015, Percent of total public investment)

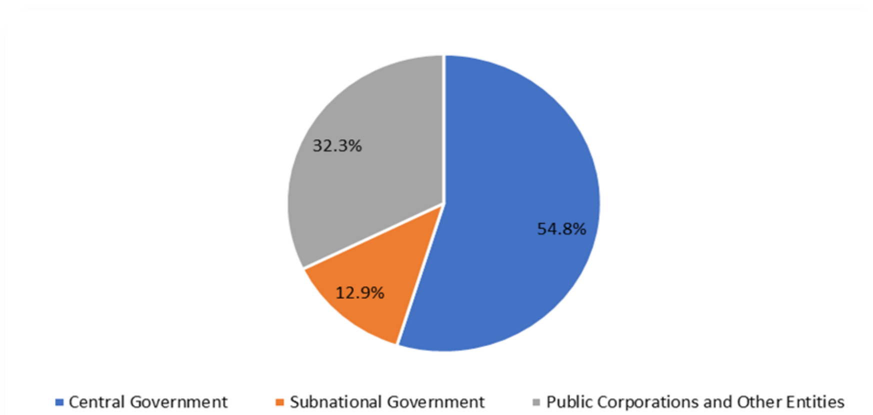


Sources: Figure 10 and 11 MOF data, and WEO and IMF staff estimates based on official data.

Notes:
1/ Economic infrastructure is approximated by economic affairs and includes public investment for transportation infrastructure, among other components.
2/ Social comprises public investment in education, health, housing, social protection, and recreation and culture.
3/ Other, includes public investment for general public services, safety and public order, and environment

15. Public investment spending is largely executed by the Federal government and public corporations in Mexico. In 2013, the Federal government's investment spending accounted for 3.4 percent of GDP (54.8 percent of public sector investment, see Figure 12), while investment by public corporations stood at 2 percent of GDP (32.3 percent of public sector investment). However, the share of public sector investment directly executed by the subnational governments is limited, representing only 0.8 percent of GDP, or 12.9 percent of public sector investment (Figure 12). PEMEX, the state oil company, is the public corporation with the largest amount of average public investment, at 1.7 percent of GDP over the last five years.

Figure 12. Public Sector Investment Spending by Level of Government
(2013, % by level of government)



Sources: IMF Staff estimates.

16. Mexico's Public-Private Partnerships (PPPs) capital stock is lower than that of LAC but higher than OECD countries. During the decade 1990-2000, Mexico's PPPs' capital stock increased rapidly from almost 0.2 percent of GDP in 1990 to more than 2 percent of GDP by the end of the 1990s, reaching the EME average during the mid-1990s. Increases have been more modest since then, stabilizing at 3 percent of GDP in 2014 which is half that of the LAC average (Figure 13). In the region, Mexico's PPPs capital stock is less than other Latin American countries such as Brazil, Argentina, Chile, and Peru (Figure 14).

Figure 13. Public-Private Partnerships Capital Stock (nominal, % GDP)

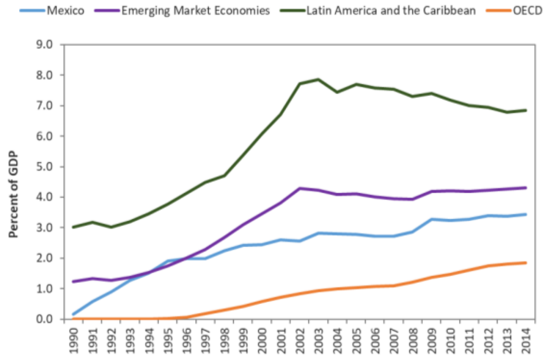
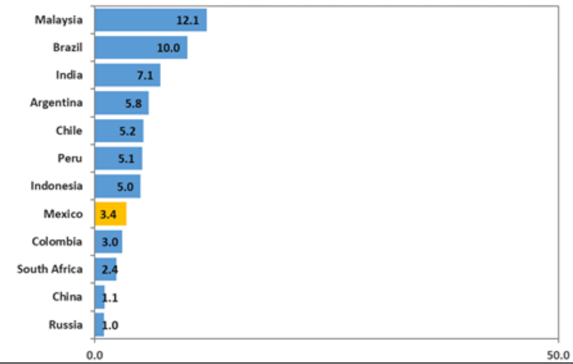


Figure 14. Public-Private Partnerships Capital Stock Cross Country Comparison, 2014 (% GDP)



17. This chapter discusses how public investment impacts infrastructure in Mexico, and the efficiency of public investment. Section A describes perceptions of infrastructure quality and indicators for access to infrastructure. Section B compares these indicators to costs, to assess the efficiency of investment. Section C outlines other measures of investment performance, including execution rates and volatility.

A. Public Investment Impact

18. Perceptions of infrastructure quality in Mexico have improved significantly over the last decade. According to surveys conducted by the World Economic Forum[13], on a 7-point scale, the overall score for the perceived quality of public infrastructure in Mexico was 4.12 in 2015, compared to 3.34 in 2008. These levels are above the averages for LAC and EME but below that of the OECD (Figure 15).

19. Mexico lags behind comparators in terms of access to physical infrastructure but the differences are more pronounced when compared with OECD countries' performance. Scores relating to roads per capita are particularly low, but Mexico fares relatively well on access to treated water, with slightly better access than EME and LAC, and slightly behind the OECD (Figure 16). Performance on electricity and health infrastructure is poor, even compared to LAC.

[13] The World Economic Forum surveys business leaders' impressions of the overall quality of key infrastructure services. While this indicator provides a measure of the overall quality of infrastructure assets, it is affected by individual perception biases.

Figure 15. Perceived Infrastructure Quality (2006-2015)

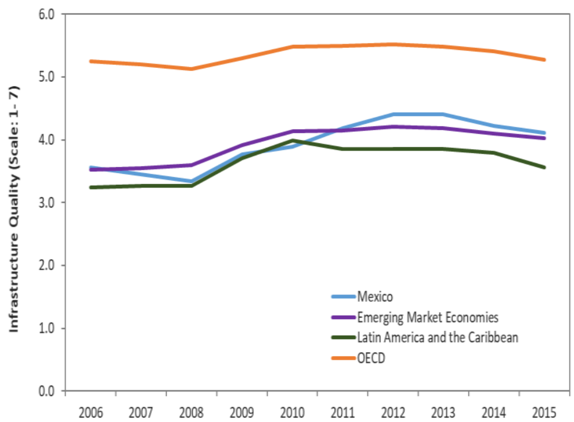
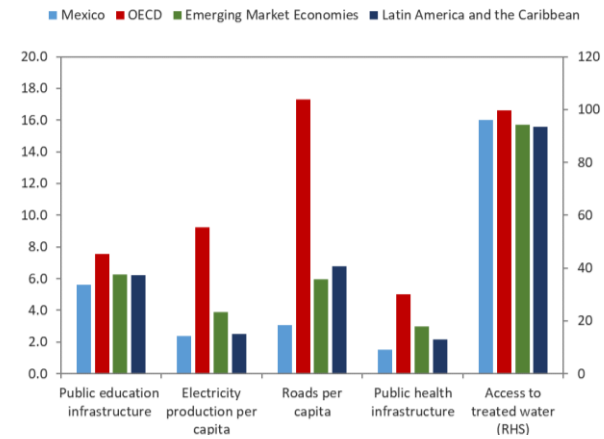


Figure 16. Measure of Infrastructure Access* (most recent year)



Source: World Economic Forum and staff estimates.

* Public education infrastructure is measured as secondary teachers per 1,000 persons; Electricity production per capita as thousands of kWh per person; Roads per capita as km per 1,000 persons; and Public health infrastructure as hospital beds per 1,000 persons. The most recent year is used for each indicator depending on the availability of data.

B. Public Investment Efficiency

20. The IMF's methodology for estimating the efficiency of public investment was set out in the 2015 policy paper Making Public Investment More Efficient.[14] Simply stated, a country's performance on an index of the output of public investment is compared to its input, or per capita public capital stock. A "frontier" is drawn consisting of the countries achieving the highest output per a unit of input. The IMF has prepared a database which enables the performance of each country to be compared relative to the frontier. To make the comparisons more meaningful, Mexico is compared with OECD, EME and LAC.

21. Based on this methodology, the efficiency of public investment in Mexico lags its comparators. Data indicates significant room to improve public investment efficiency in Mexico (Figure 17). The efficiency gap between Mexico and the most efficient countries is 40 percent. This gap is wider than the averages for the OECD (13 percent), EME (27 percent) and LAC (29 percent) (see Figure 18). There is thus substantial scope for the Mexican authorities to adopt policies that will help improve the level of efficiency of public investment. Chapter III of this report analyzes where these gaps are by assessing the strength of 15 PIM institutions across the planning, budgeting, and implementation cycle, and proposes recommendations to help close the efficiency gap.

[14] See http://www.imf.org/external/np/pp/eng/2015/061115.pdf

Figure 17. Efficiency Frontier

Hybrid Indicator - Benchmark based on perceived quality and physical access to infrastructure

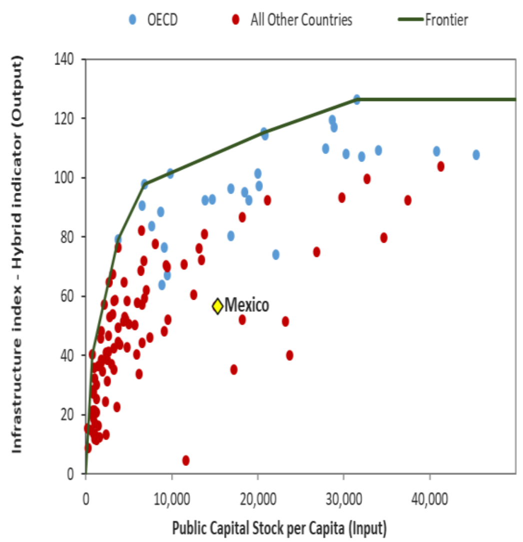
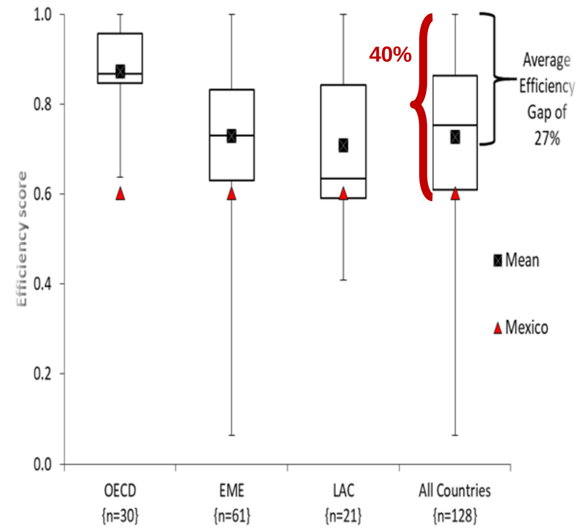


Figure 18. Public Investment Efficiency Hybrid Indicator - Benchmark based on perceived quality and physical access to infrastructure

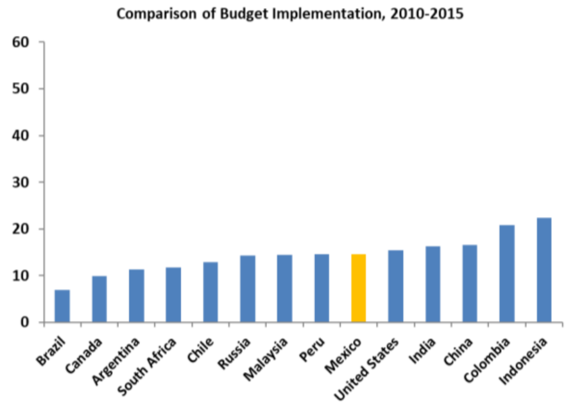


Source: IMF Staff Estimates

C. Other Measures of Public Investment Performance

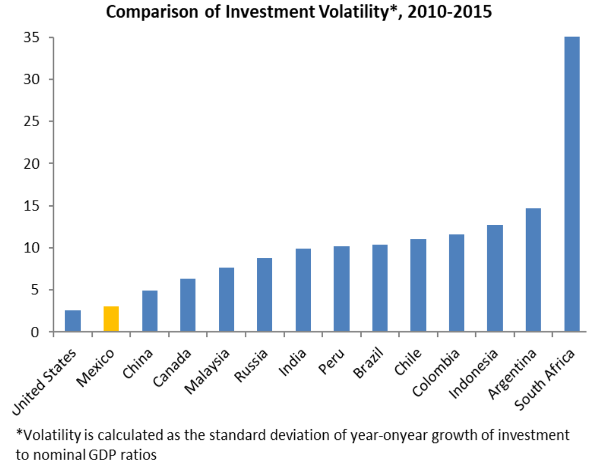
22. Mexico's performance on other measures of public investment is mixed. The gap between planned and executed capital spending is higher in Mexico than in most of its comparable neighbors (Figure 19). On the indicator of investment volatility, Mexico's public investment was less volatile than in most comparators (Figure 20).

Figure 19. Execution of Capital Expenditure	Figure 20. Investment Volatility*
(average absolute deviation from planned general government capital spending, 2010-15) [1]	(average 2010-15)



Source: IMF Staff Estimates

[1]This graph (and graph 2.I) is based on the IMF's WEO database, which may not reflect execution rates as calculated through the annual budget; however, it allows for cross-country comparisons.



III. PUBLIC INVESTMENT MANAGEMENT ASSESSMENT

23. **This section provides a comprehensive assessment of the quality of public investment management in Mexico**. Section A describes the assessment framework that is applied. Sections B, C and D analyze different features of public investment quality, related to the planning, allocation and implementation phases of the public investment cycle.

A. Public Investment Management Assessment (PIMA) Framework

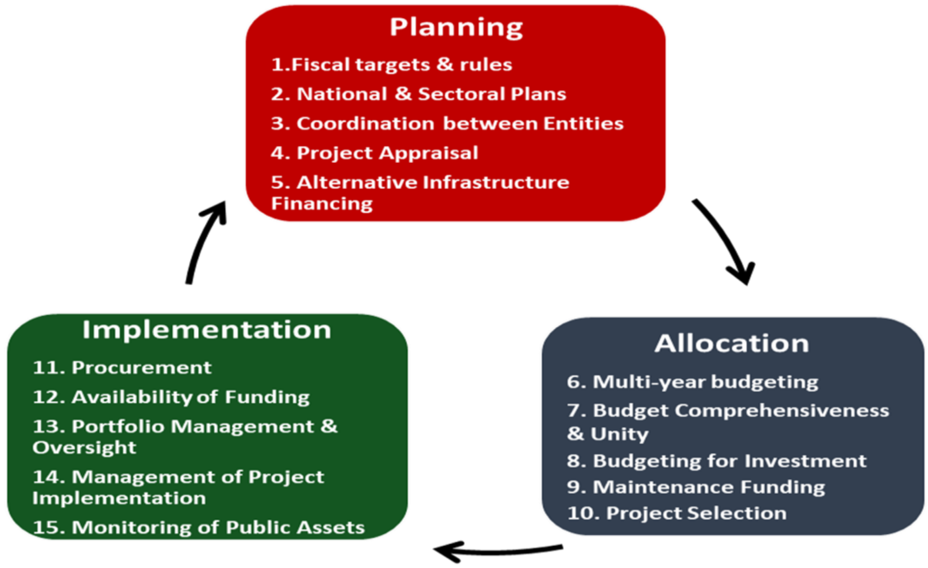
24. **The IMF has developed the PIMA framework to assess the quality of the public investment management.** It identifies the strengths and weaknesses of institutions and is accompanied by practical recommendations to strengthen them and increase the efficiency and impact of public investment.

25. **The tool evaluates 15 key indicators, referred to as "institutions", that are involved in the three major stages of the public investment cycle as shown in the graph below.**

- Planning of investment levels for all public-sector entities to ensure sustainable levels of public investment;

- Allocation of investments to appropriate sectors and projects;
- Delivering productive and durable public assets

Figure 21. The PIMA Framework



Source: IMF Staff

26. For each of these 15 institutions, three indicators are analyzed and scored, according to a score that determines whether the criterion is met in full, in part, or not met (10, 5, 0 are assigned respectively). Each dimension is scored on two different measures: institutional strength and effectiveness. The score for reform priority is assessed at the institution level.

- **Institutional strength** refers to the objective facts that an organization, policies, rules and procedures are in place. The score for an institution, which may be high, medium, or low, corresponds to the average of the institutional strength scores for each of its three dimensions.
- **Effectiveness** refers to the degree to which the intended purpose is being achieved or there is a clear useful impact. The score for an institution, which may be high, medium, or low, corresponds to the average of the effectiveness scores for each of its three dimensions.
- **Reform priority** refers to whether the issues contained within the institution are important to be improved in the specific conditions faced by Mexico.

The following sections will provide a detailed assessment according to this methodology for each institution in Mexico.

B. Planning Sustainable Levels of Public Investment

1. Fiscal Targets and Rules *(Institutional Strength – Medium; Effectiveness – Medium; Reform Priority – High)*

27. Mexico's fiscal rules are set out in the Federal Law of Budget and Fiscal Responsibility (FRL)**.** At the Federal level, the rules include a modified balanced budget rule, an expenditure rule, a public sector borrowing requirement (PSBR) target and a requirement for Congress to approve annually the overall Federal debt limit (Article 73 of the Constitution) (see Box 1 for a summary of the statutory rules).[15] The FRL sets a balanced budget target which excludes investment by PEMEX and includes an exceptional circumstances escape clause (Article 17) which allows for fiscal deficits and higher expenditures in periods of special economic and social conditions. The FRL was amended in 2014 to add an expenditure rule, which places a limit on the real rate of growth of structural current spending[16], as well as including the PSBR, as percent of GDP, as an explicit fiscal target in addition to the balanced budget rule (Article 16). The five-year projections (excluding the draft budget year) for the PSBR are included in the General Economic Policy Guidelines accompanying the budget. The projections are required to be consistent with a sustainable debt path. Currently, the projections set a PSBR target of 2.5% of GDP each year through 2023.[17]

28. The exceptional circumstances under which the escape clause can be activated are set out in the regulations to the FRL (Article 11) and stipulate five specific triggers including changes in economic circumstances, a revenue shock or natural disasters. The escape clause allows for the fiscal target to be breached for a period of time; the time period is agreed with Congress (see Article 17, sub-section III). The authorities invoked the clause in 2010 and 2014.[18] Previous reports, including from the IMF and the OECD 2017 Economic Survey, have noted that the exceptional circumstances clause, as stated in the FRL, is insufficiently tight. They have recommended that: (i) the use of the escape clause should be limited to cases of large output or oil price shocks and (ii) that the fiscal framework should have explicit provisions to bring the PSBR back to the medium-term target after the escape clause has been invoked.

[15] The fiscal-discipline legislation for subnational governments addresses subnational deficits, debt limits and expenditure control. It imposes stricter controls on subnational government debt, based on non-earmarked revenues, debt service and short-term commitments. It provides for the establishment of a single debt registry to monitor subnational government debts and introduces a traffic light system of alerts to identify subnational governments at risk of high indebtedness.

[16] Structural current spending is broadly defined as programmable (or discretionary) expenditure.

[17] *Criterios Generales de Política Económica General para la Iniciativa de Ley de Ingresos y el Proyecto de Presupuesto de Egresos de la Federación Correspondientes al Ejercicio Fiscal 2018* (General Economic Policy Guidelines).

[18] Nonetheless, the fiscal balance remained outside what has been established in the law for several years.

Box 1. Overview of Mexico's Fiscal Rules

The following fiscal rules are set out in the Federal Law on Budget and Fiscal Responsibility (Chapter II, Articles 16-17):

Balanced budget rule (BBR) - a zero-balance target on the fiscal deficit, applied to the federal public sector, excluding investments by PEMEX and its subsidiaries.

PSBR target– annual target for the PSBR[1], which has a wider coverage than the BBR, is set each year in % of GDP in the General Economic Policy Guidelines which accompany the budget document.

Expenditure rule - a limit on the real rate of growth of structural current spending [2] (equal to potential output growth which is currently estimated at 2.5 percent a year).

Source: IMF staff based on Articles 16 and 17 of the FRL.

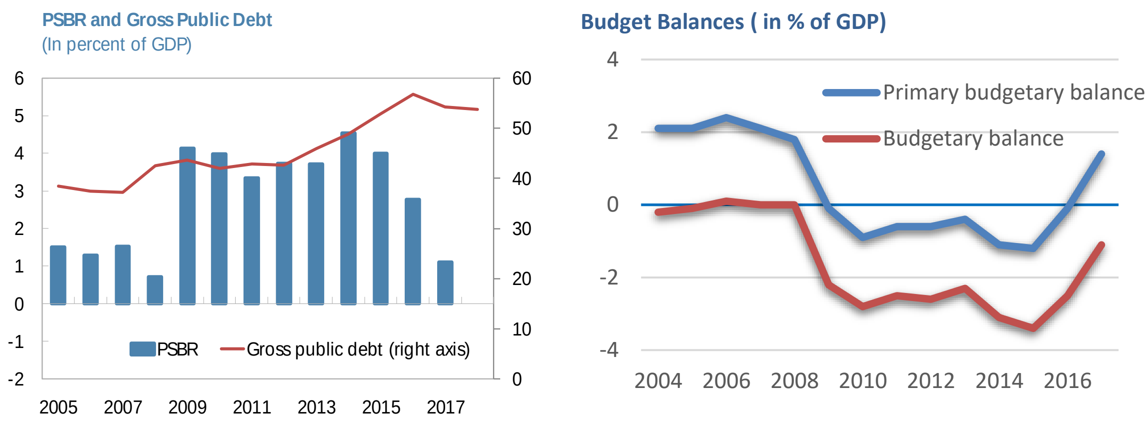
[1] Mexico's PSBR definition is wider than in other countries, as it includes extra-budgetary units and other public sector entities.

[2] Structural current spending excludes outlays governed by automatic rules (mandatory transfers to state and local governments, pensions, subsidies for electricity and subnational revenue-sharing).

29. There is no statutory limit or target set for public debt, and up until recently debt has been rising, however the authorities' fiscal consolidation plan has reduced the trajectory of debt. During the last two years, public debt has been on a downward trajectory (see Figure 22). The fiscal consolidation plan was in response to the authorities' invoking the balanced budget rule's exceptional circumstances clause in 2014 in response to a deterioration in the fiscal balance, following the fall in the oil price. To stabilize debt at around 54 percent of GDP, the government needs to meet its PSBR target of 2.5 percent over the medium term. This debt trajectory is, however, contingent on growth converging toward its potential of 2.7 percent and a steady path for interest rates.[19]

[19] IMF Article IV Report 2018.

Figure 22. Budget Balances, PSBR and Gross Public Debt



Sources: (left graph) *Mexico Staff Report for the 2018 Article IV Consultation*; (right graph), authorities and IMF.

30. However, fiscal policy has only a limited medium-term focus, potentially reducing the government's ability to plan and effectively use resources. The initial macro-fiscal analysis published in April to guide budget preparation (the pre-criteria report, published before budget preparation begins), focuses mainly on the coming budget year and contains medium-term projections for only broad aggregate fiscal indicators. As such, it would not be considered as a fully developed medium-term fiscal framework (MTFF). In addition, the PSBR, introduced as part of the amended fiscal rules in order to limit the pro-cyclicality of the deficit rule, effectively focuses on an annual, not a medium-term, target. While the Annual Financing Plan includes outer-year projections, they are projected to be at the same level as that for the coming budget year.

31. The MTFF could be strengthened by improving the information and analysis in the pre-criteria report. This could be achieved by broadening the scope of the pre-criteria report to include more elements of a medium-term fiscal strategy statement, specifically more in-depth discussion of fiscal policy objectives and analyses of medium-term fiscal parameters, including fiscal risks, as well as more disaggregated macro-fiscal projections, including expenditures over the medium-term. Restricting the exceptional-circumstances escape clause would provide further legal support for the maintenance of a sustainable debt path.

32. To improve quality, it would be helpful to have an independent body review the governments projections and compliance with fiscal rules and to assess the sustainability of the debt sustainability path. Currently, Congress' Center for Public Finance Studies, which is a technical support unit attached to the Chamber of Deputies, and the Belisario Domínguez Institute, attached to the Senate, review, but do not fully assess fiscal projections. This, or another body, could be re-constituted as a separate, independent (to government) and objective council to undertake this role.

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

33. National and sectoral planning is guided by the Law on Planning.[20] At the beginning of the new Presidential 6-year term, the incoming Administration must prepare and publish a National Development Plan (*Plan Nacional de Desarrollo*) (NDP) for the entirety of the term, with goals, objectives and non-financial performance measures. This is required to be done within 6 months of the new President taking office. Linked to the NDP are a series of 11 sectors and 3 cross-cutting strategic plans, which include objectives, strategies, lines of action, and non-financial performance indicators, comprising a mix of measurable output and outcome indicators. The strategic plans are not focused specifically on public investment, they do not include details of projects, and the plans are not required to be costed.

34. The National Infrastructure Plan (NIP, *Programa Nacional de Infraestructura*), prepared and published one year after the NDP, specifies projects and programmes in 6 sectors.[21] This has the strategic aim of promoting private sector participation in these projects. Of the types of strategies and plans prepared by the Federal government (see Box 2), the NIP is the only plan that contains information on public investment projects and an estimate of their costs (aggregate and by sector) neither the overarching NDP nor the sector strategies and plans include such information. The NIP includes information on Federally-funded projects administered by Federal-level budgetary entities (e.g. ministries) and some, but not all, projects funded by subnational governments, PPPs and SOEs, particularly those funded by what in Mexico is referred to as non-productive public corporations, as well as non-organic trust funds.[22] Donor-funded projects are not significant. Performance information in the NIP is provided at the sector level. For each sector, up to 6 measurable outcome indicators[23] are set out but there are no indicators for projects.

[20] *Ley de Planeación*, published in the Diario Oficial de la Federación (Official Gazette) on 5 January 1983; the date of most recent amendments is 16 February 2018.

[21] These are: communications and transport, energy, water, health, urban development and tourism.

[22] See Box 7 below and the recent *IMF Fiscal Transparency Evaluation (FTE) for Mexico* (2018).

[23] Four of the six sectors have only 2-3 indicators each. Examples of indicators in the NIP include: increase in the supply of water for human consumption and agricultural irrigation; increase in households with new housing having basic services; percentage of full vaccination coverage in children under one year (outcome); and the share of freight transported by rail system compared to land transport.

Box 2. Federal Government Planning Framework	
Federal-level Plans	**Coverage**
National Development Plan (NDP)	-Overarching national strategy, covers 6 years (2013-2018). -Includes broad goals, objectives and lines of action. -No cost information and no quantification of performance indicators.
National Development Financing Program (PRONAFIDE)	-Covers 6 years (2013-2018). -Includes public finance-related objectives, strategies and lines of action needed to implement the NDP. -Includes macro-fiscal projections and performance indicators for each objective -Does not include projects or any cost information.
National Infrastructure Plan (NIP)	-Linked to goals in NDP. Covers 5 years (2014-2018); -Contains aggregate estimates for total investment and estimates of total investment for each strategic objective (related to sectors) and disaggregated by the different sources of financing envisaged by the strategy and by main project. -An annex to the strategy contains cost estimates for each sector, disaggregated by individual projects.
Sector plans (11 *programas*)	-Linked to goals in NDP. Covers 6 years (2013-2018); -Includes sectoral objectives, strategies and lines of action; -Does not include projects or any cost information.
Cross-cutting plans (3 plans)	-Linked to goals in NDP. Covers 6 years (2013-2018); -Includes cross-cutting objectives, strategies and lines of action; -Includes performance indicators for each objective; -Does not include projects or any cost information.

Source: Mission team.

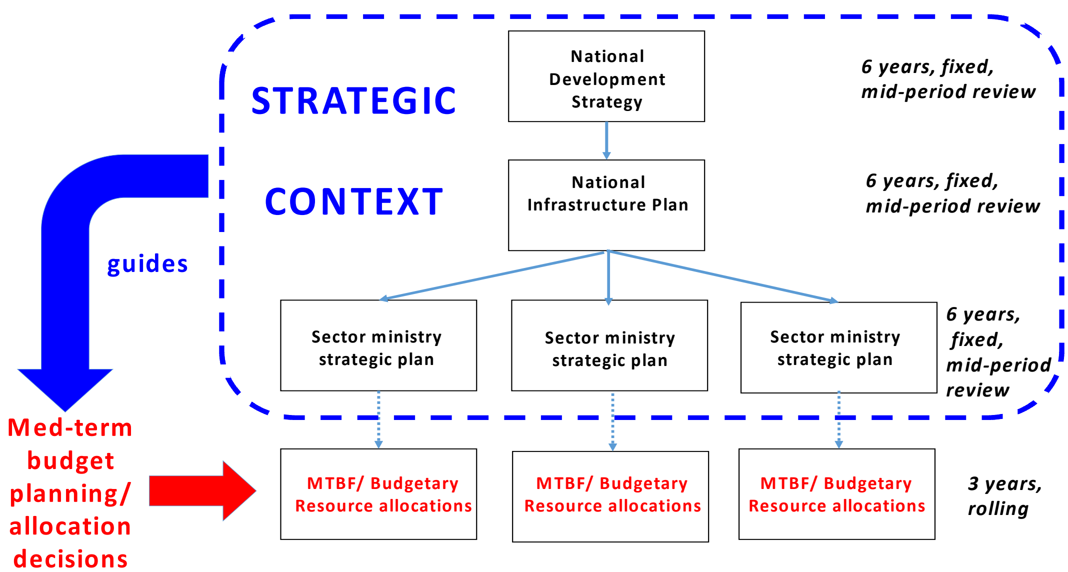
35. However, national and sector plans do not effectively guide ministries' investment project formulation and budget plans. The sector plans include very broad objectives and actions areas covering numerous and wide range policy areas. This suggests they are insufficiently targeted to provide effective guidance. The plans are not set within a realistic resource framework, meaning that the planned objectives and policy areas are not sufficiently prioritized to provide effective guidance for ministries to plan their investment budgets over the medium term. The plans are fixed for the whole period, meaning they are unable to reflect changes in economic or policy circumstance.

36. The performance targets (a single 2018 target for each objective) are also not set within a realistic resource framework; it is understandable that the targets are very conservative. In the absence of a mechanism to enable budgets to be planned with a medium-term focus, ministries are unable to plan their expenditures (both current and capital) to achieve their strategic objectives, which are medium-term by nature. The lack of a strong link between planning and budgeting is likely to contribute to the long wish-lists of projects ministries provide to SHCP throughout the year, as well as in their annual Planning Mechanism exercise prior to project selection for the budget.

37. In practice, there is currently no mechanism to link the sector plans with the budgets. This makes it difficult for ministries to use the plans to guide their public investment allocations towards achieving government's objectives. In the absence of a mechanism to enable budgets to be programmed with a true medium-term focus, combined with insufficiently-prioritized strategic objectives, ministries are unable to plan their expenditures (both current and capital) to achieve their medium-term strategic objectives. In many countries, a rolling medium-term budget framework (MTBF) provides this mechanism (see Figure 23).

38. The mechanism ensures that the strategic planning documents are used actively by ministries to guide their medium-term budget allocation decisions as part of effective fiscal management. The rolling nature of the medium-term budget framework provides the strategic link and fills the gap between planning (to meet medium-term strategic objectives) and annual budget allocations. This ensures that the strategic objectives and plans in the strategy documents are actively linked to the allocation of resources. Additional flexibility for helping the strategies to stay relevant over the entire time period of the plan is given through the option of reviewing the main strategic activities in the national and sector plans half-way through the period.

Figure 23. Illustration of Mechanism to Improve the Strategic Link Between Planning and Budgeting



Source: IMF Staff

3. Coordination between Central and Other Government Entities *(Institutional Strength — Low; Effectiveness — Low; Reform Priority — Medium)*

39. Inter-governmental relations between Federal and State levels center on a set of fiscal transfers to the States from the Federal budget. Federal transfers to subnational governments (SNGs) account for the overwhelming majority (more than 90%) of subnational government expenditures.[24] The types of transfers and the associated rules are set out in the Law on Fiscal Coordination. The transfers cover rule-based, non-discretionary revenue-sharing arrangements (*participaciones*) and discretionary resources for earmarked purposes (*aportaciones*).

40. *Participaciones* may be used by subnational governments for any purpose. By contrast, *aportaciones*, comprising 8 funds under Ramo 33, finance sector-specific spending, with the largest of such transfers targeting wages and salaries in the education, health and public security sectors. In addition, earmarked transfers for regional and local infrastructure projects (as well as for current expenditures) are allocated under Ramo 23. Finally, decentralization agreements (*convenios*) are matching grants used to finance programs of interest in specific sectors targeted by the federal government. They are negotiated on a case-by-case basis and executed by subnational governments. While some earmarked transfers may be used for investment projects, the overwhelming majority are not (see Annex 4). Table 3 shows the volume and value of earmarked transfers in the 2018 budget for capital investment.

Table 3. Earmarked Transfers to States for Capital Investment by Type, 2018 Budget

Type of transfers	Number of projects	Average value of projects[1] (million Pesos)
Transfers under Ramo 23	199	1,087,578
Aportaciones – Ramo 33	18	4,460,355
Total	**217**	**1,150,370**

1. Average may refer to groups of projects. Some projects are included in the database but not allocated funding in 2018.

Source: IMF Staff and SHCP

41. The Law on Fiscal Coordination sets out formulae for determining annually the amounts to be provided from the three funds supplying the main source of earmarked Federal support for infrastructure at subnational level.[25] The Law provides for the Federal government to use a transparent, formula-based system for making some capital transfers to subnational governments.[26] However, the law also specifies the end of January of the budget year as the deadline for informing the SNGs of the transfer amount they will receive that year which makes it difficult for SNGs to plan their capital expenditures efficiently.

42. In practice, there is very little coordination of public investment spending plans between Federal and SNGs, and communication of the transfer amounts is not timely, leading to inefficiencies in SNGs capital spending. The set of transfers provided to States from

[24] For the data and more details see World Bank, *Mexico Public Expenditure Review*, March 2016.

[25] Taken together, transfers from these 3 funds (FAIS, FAFEF and FAM; see Annex 4) to subnational government for infrastructure projects represent less than 10% of total transfers to subnational governments in 2018.

[26] Other Federal-level support for subnational capital spending is provided under specific agreements determined annually between the Federal and relevant subnational government on a project-by-project basis (see Annex 4).

the Federal budget for earmarked projects is complex and fragmented and is provided through a complicated series of funds (see Annex 4). SNGs do not receive notification of the exact amounts they will receive for each type of transfer, especially for discretionary transfers (*aportaciones*), until January of the budget year. This means that SNGs cannot finalize their budgets before the start of the budget year. The specific projects to be financed from the earmarked transfers are not decided until after the specific transfer amounts by fund have been communicated to the SNGs. For each specific project, SHCP's review and approval is required. SNGs have indicated that in some cases this review and approval process can take between 5-7 months, leaving subnational governments with less than half of the year to implement their projects.

43. There is no specific mechanism for collaboration in the production of public investment plans and projects. Central government ministries and agencies have no formal role in the development of state plans. The Federal government has no role in project planning by SNGs. While earmarked projects (i.e. most *aportaciones*, for education and health)[27] are agreed with the relevant line ministry and SHCP, the Federal government does not have a role in State level monitoring or implementation of these projects. In addition, SNGs are not legally required to report on their contingent liabilities to SHCP (except on PPPs); the same is true of public corporations, although there is some reporting from these entities.[28] SNGs account for around 35 percent of net public sector expenditure, these expenditures, including for investment, are not consolidated in any fiscal report.[29]

44. The Law on Subnational Fiscal Responsibility sets out the rules for contracting of subnational debt.[30] Subnational governments may take on short-term debt obligations without Federal (or local legislature) approval, but Federal guarantees require SHCP's approval. The Law requires that a single debt register be maintained by SHCP for subnational-level debts; and it instituted a traffic light early-warning system. States are classified as having manageable indebtedness (green), indebtedness in observation (yellow) or high indebtedness (red). Any subnational government classified as red is prohibited from borrowing.[31] The Federal government monitors subnational borrowing operations through the Secretariat of Fiscal Coordination in SHCP, whose primary role is to monitor subnational debt.

45. Ensuring efficient resource allocations to capital projects across government levels and avoiding duplication of investments is an important priority. While respecting the autonomy of the states, more information sharing and coordination is in the interest of citizens

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[27] For other transfers (e.g. FAIS, Ramo 23 and convenios), the rules of operation are on a case-by-case basis.

[28] The IMF's 2018 Mexico FTE stated that the external auditor (ASF) noted that there are limited accounting records for non-financial assets and corresponding depreciation, PPP arrangements, and contingent liabilities;

[29] *IMF 2018 Mexico Fiscal Transparency Evaluation*

[30] SNGs are not permitted to borrow from foreign nations, companies or individuals, or in foreign currencies.

[31] As of November 2018, the overall evaluation which summarizes three indicators had one state classified as overall red. Some states had red for some indicators and a number of states were classified as yellow overall.

and state and the federal governments. This is likely to involve improving the mechanism for coordination (e.g. through a forum like COPLADES -the State Committee for Development Planning- but between states and the Federal government) and increased transparency and information sharing on the medium-term public investment plans of Federal and subnational governments. In conjunction with the debt levels, the information communicated should be broadened to include the reporting of fiscal risks for both Federal non-budgetary entities and State level governments, including implicit and explicit contingent liabilities and consolidated data on public investment for general government, including Federal and subnational levels.

4. Project Appraisal *(Institutional Strength — High; Effectiveness — High; Reform Priority — Low)*

46. The main stages in Mexico's public investment planning and budgeting process are specified in the Federal Budget and Fiscal Responsibility Law. These include the four stages described in Box 3 and Figure 24 and 25.

Box 3. Mexico's Public Investment Planning and Budgeting Process

Stage 1: ***Planning and prioritizing of investment projects by ministries***. This includes the preparation of the Planning Mechanism (See figure 25), including the required documents for those projects under consideration in the upcoming budget, (but ministries can propose projects throughout the year). This must stage must be completed by the end of March.

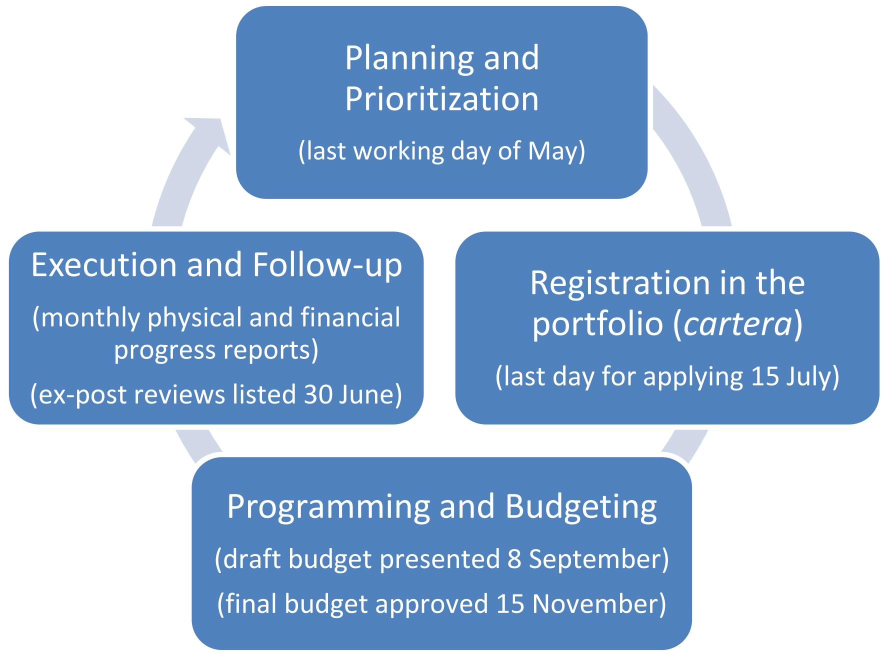
Stage 2: ***Registration of approved projects in the portfolio* (*cartera*)**. SHCP reviews the documents from ministries including socio-economic and financial analyses of each project, discussions with the line ministries and a Registration Code is issued for each approved project. For projects for potential inclusion in the coming budget this step must be completed by the 15th July.

Stage 3: Programming and Budgeting: This involves the initial selection of projects for inclusion in coming budget by the IU and the review and approval by the Interministerial Commission for Public Expenditure, Financing and Disincorporation. The deadline for presentation of the draft budget to the Chamber of Deputies is 8 September, the budget should be approved by 15 November.

Stage 4: Execution and Follow-up of the project upon completion. Figure 24 summarizes diagrammatically the steps in the cycle, and Figure 25 provides more detail on stages 1 and 2.

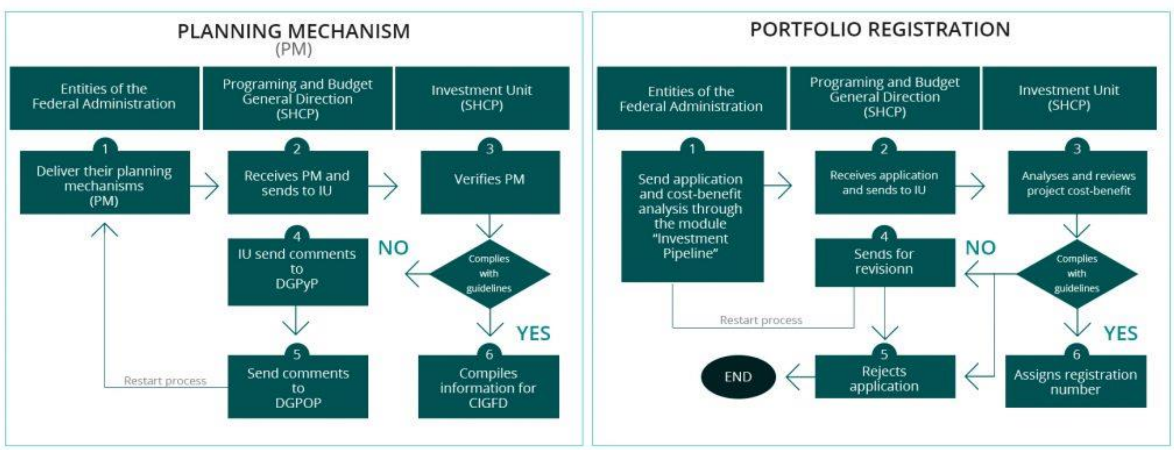
Source: SHCP

Figure 24. Investment Project Planning, Budgeting and Execution Cycle



Source: SHCP

Figure 25. Schematic Overview of the Planning Mechanism and Portfolio Registration Stages



CIGFD = Comisión Intersecretarial de Gasto Público, Financiamiento y Desincorporación.
DGPOP = Dirección General de Programación, Organización y Presupuesto (SHCP).
DGPyP = Dirección General de Programación y Presupuesto de la Secretaría de Hacienda y Crédito Público (SHCP).
SHCP = Secretaría de Hacienda y Crédito Público (Ministry of Finance).
IU = Unidades de Inversión (Investment Unit).

Source: Proyectos México, SHCP.

47. The requirement for project appraisals to be carried out as part of the public investment planning process is set out in Article 34 of the Federal Budget and Fiscal

Responsibility Law. Detailed socio-economic and financial analyses[32] are required to be prepared for all projects registered in the Investment Unit 's portfolio of projects, known as the *cartera*.[33] The details of the standardized methodology required for preparation of the appraisals is set out in separate Guidelines. The scope and level of detail of the analyses in the project appraisals are based on the size of the project according to thresholds stipulated in the law and in the *Lineamientos* published in 2013 (see Figures 26 and 27). The analytical requirements include an estimate of the future operation and maintenance costs of the infrastructure but not of non-infrastructure-related operating costs (e.g. personnel for a hospital). Central support to ministries preparing these evaluations includes a dedicated entity under SHCP (the Center of Studies for the Preparation and Socioeconomic Evaluation of Investment Projects CEPEP). Despite relatively limited staff, the central support unit provides ministries with a range of modalities of support, including on-line courses and training. Sector ministries did not express dissatisfaction with the level of support they received.

Figure 26. Types of Analytical Assessment for Investment Projects

Rigor in analysis (+) to (-)

Type of analysis	Type of Program and Investment Project (PPIs)	
Pre-investment Studies	• PPI > 1,000 (MXN mn)	
	At the level of pre-feasibility	**At profile level**
Cost-Benefit Analysis (CBA)	• PPI > 500 MNX mn • PIDIREGAS.	• Projects > 50 MXN mn y <500 MXN mn. • Program >150 MXN mn y <500 MXN mn .
Análisis Costo-Eficiencia (ACE) (Los beneficios son de difícil cuantificación y/o valoración)	• PPIs > 500 mdp	
Technical fiche	• Investment Projects < 50 MXN mn • Acquisition and maintenance programs < 150 MXN mn	

Source: IU, SHCP

[32] Socio-economic evaluation is the term used for cost-benefit and cost-effectiveness analyses in Mexico

[33] Ministries may submit projects to IU for review throughout the year, not just during the main investment budget planning process.

Figure 27. Analysis Required for Each Type of Project	
Type of *ex ante* project analysis	**Required Analysis**
Technical fiche	-General information about the project. -Strategic alignment with NDP/sectoral goals and objectives. -Analysis of current situation. -Analysis of situation without the project. -Justification of proposed solution against alternatives. -Analysis of the most important technical, environmental and legal aspects. -Estimated supply and demand factors. -Identification, quantification and valuation of costs and benefits (including, for large projects: NPV, IRR and immediate performance rate).
Simplified cost-benefit analysis	As for technical fiche, plus -Identification of the main risks associated with project execution and operation; and -Conclusion of the program/project's relative profitability.
Cost-benefit analysis	-More detailed analyses of each of the elements in the simplified cost benefit analysis, plus: -Main conclusions on technical, legal, economic and environmental feasibility; market and other specific feasibility based on sector and program/project; -Identification and classification (based on the feasibility of its occurrence) of the main risks associated with the program or investment project in its stages of implementation and operation; -Analysis of the impact of each of the risks on project implementation and operation; and -Actions required to mitigate the risks.
Simplified cost-efficiency analysis	-Socioeconomic assessment including all of the elements required for the cost-benefit analysis except for those related to the quantification of benefits and NPV calculations.
Cost-effectiveness analysis	-Carried out during pre-feasibility. Ensures the efficient use of resources when two alternative solutions are compared, assuming that they generate the same benefits. -Includes all of the elements required for the cost-benefit analysis, except for those related to the quantification of benefits and NPV calculations; plus: -Assessment of at least a second alternative program or project, to show that the chosen alternative is the least cost alternative.

Source: Mission team. based on "Guidelines for the Selection of Investment Projects" (Article 34 of the FRL).

48. In practice, appraisals are carried out for all projects funded from the budget, including those added by Congress after the draft budget has been submitted, plus the PPPs with payments from the budget or from FONADIN. Project appraisals of those projects in the project pipeline are made public. They show good coverage of the socio-economic and financial issues and a good depth and rigor of analysis, in line with the analytical requirements for thresholds of project size set out in the legislation. In particular, these reports include an analysis of various risk factors and some appraisals for major projects identify factors to mitigate these risks.[34] While projects funded by public corporations and extra-budgetary units without Federal funding (e.g. projects funded by EPEs public corporations [e.g. PEMEX and CFE] and FONADIN projects receiving no grants) are not required to submit appraisals for their projects, EPEs carry out their own appraisals, which are uploaded to the relevant system as part of being registered in the *cartera*, but their appraisals are not approved by SHCP but by the EPEs themselves.[35]

49. Good-quality projects require high-quality socioeconomic assessments. There are currently around 2000 projects in the *cartera* with foreseeable funding in the short term. Around 1700 *cartera* projects received funding in 2018. During the year, IU receives around 500 projects to review (it received 544 in 2017), and it approves around 200 on average. Given the sheer number of projects being reviewed, additional quality control of the assessments would be usefully conducted through an independent review of project appraisals for a limited number of key projects. The IU faces a challenge which is common in many countries that it depends on the evaluations commissioned and provided by spending ministries, who have a vested interest in promoting their projects and ensuring they receive positive evaluations.

5. Alternative Infrastructure Financing *(Institutional Strength — Medium; Effectiveness — Medium; Reform Priority — Medium)*

50. Recent reforms, focusing on oil and energy but also addressing other infrastructure, improved access to infrastructure markets, promoted competition, established regulators, and defined a framework for private investment in infrastructure. Sectoral regulators have been established such as Instituto Federal de Telecomunicaciones (IFT) and Comisión Reguladora de Energía (CRE), and the Competition Authority (Comisión Federal de Competencia Económica, COFECE) was given a new and much more relevant role. Major reforms are being implemented which are introducing competition in infrastructure markets, creating conditions for modernization, expansion of service and ultimately price reduction. A published clear framework for the preparation, selection, and management of public-private partnerships (PPP) is in place, including legislation, regulations, and a PPP Unit in SHCP. PPP projects using budget funds or trust-fund grants (e.g. FONADIN) are subject to socioeconomic evaluation and a detailed assessment of the PPP option. A plethora of public corporations (PC) and trust funds (fideicomisos) are involved in public investment in infrastructure, with the SHCP reviewing and overseeing most of the investment projects, but not all of them.

[34] However, some major project appraisals reviewed did not include risk mitigation measures.

[35] As indicated above, Federal Government entities (e.g. ministries, extra-budgetary units and public corporations) may register projects in the *cartera* at any point during the year, not just during the Planning Mechanism stage of the investment planning/budgeting stage (Stage 1 above).

Box 4. Promoting Competition in Infrastructure Markets

The telecommunications sector is now experiencing the benefits of pro-competition reforms. A 2017 OECD review praised the recent reforms of the sector as leading to new players entering the market, significant price decreases and better access. Persevering in these structural reforms including in the energy sector reforms and opening up to private sector investment in infrastructure, is essential for promoting growth and reducing poverty and inequality. As in telecommunications, the energy and infrastructure reforms need perseverance and good regulation for the population and economic activity to reap the ultimate benefits.

Mexico's Federal Competition Authority, COFECE, has been advising public entities on legislation and practices to promote competition in infrastructure markets, and punishing anti-competitive practices. These activities cover a broad range of activities, from the national markets for electricity, gas, and oil-related products, to local access to port, rail, and airport services.

In January 2018 COFECE presented to CFE a set of recommendations (see *Reporte Mensual Enero*) for opening the electricity infrastructure market, including: (a) effective unbundling of CFE horizontally and vertically; (b) elimination of preferential treatment of CFE's electricity generating companies by CFE Energía in the access to natural gas, namely by not awarding directly gas contracts; (c) elimination of discriminatory access of new electricity generators and distributors to transmission and distribution networks under CFE management; and (d) open access by all competitors to CFE information on energy demand and needs. With contributions from COFECE, a 2018 OECD report includes a set of recommendations for adopting competitive procurement of CFE's activities.

In June 2018, COFECE presented to the Energy Regulator (Comisión Reguladora de Energía, or CRE) a report focusing on the regulation of underused infrastructure for gas storage and distribution, the infrastructure is in the hands of PEMEX and a few private entities, in conditions that preclude the entry of competitors. COFECE has also been applying fines for anti-competitive behavior, including a recent fine of 418 million Pesos to PEMEX TRI for not implementing previous commitments for opening the market for marine diesel and other fuel oils (see *Reporte Mensual Agosto*).

Sources: OECD (2016) A review of the procurement rules and practices of PEMEX in Mexico; (OECD (2017) Telecommunication and Broadcasting Review of Mexico 2017; OECD (2018) Fighting bid rigging in Mexico: a *review of CFE procurement rules and practices*; COFECE (2018) *Reporte Mensual – Enero*; COFECE (2018) *Reporte Mensual – Agosto*; COFECE (2018) *Transición hacia Mercados Competidos de Energía: Gas LP*.

51. **The largest PCs have an EPE status that gives them significant autonomy, namely in preparing and procuring their investment projects**. It is the same case with regard to several trust funds. Therefore, the government has no consolidated report on the investment plans and financial performance of PCs or *fideicomisos*.

52. The development of effective competition in infrastructure markets and in public service delivery requires continue support for the reform, allowing regulations and oversight institutions to take the required next steps. In several infrastructure markets (such as the energy markets where the former public monopolies in practice still have dominant positions) new steps will be needed to make efficient use of current infrastructure and attract new investors, to fully reap the benefits in terms of modernization, expanded supply and price reductions. Regulatory institutions have been active in promoting these next steps and in discouraging anti-competitive behavior. The role of the regulators has been strengthened and the competition authorities have been empowered to deter collusion and other anti-competitive practices.[36]

53. The PPP framework has been effective in reviewing PPP proposals, and there is evidence that some projects have been filtered out. The framework includes specific legislation and regulations, including recent strategic guidance published by the SHCP. Further improving the framework, by removing the "PPP promotion" goal of the PPP Unit (a clear conflict of interest regarding its "PPP filtering" goal) and by reviewing the PPP selection methodology to ensure consistency with the latest international experience and best practices. This would foster efficiency and fiscal-risk mitigation. The PPP Unit's materials focus on the benefits of PPPs and do not present their drawbacks, this does not help government entities to understand where PPP do present good value and where they do not. The evaluation of PPPs suitability is still too focused on quantitative value-for-money, meaning that some recent lessons from global experience have not yet been applied. There are still PPP projects (for instance, some of the projects promoted by FONADIN) that do not follow the standard SHCP assessment and prioritization processes.

54. Infrastructure efficiency and fiscal-risk management can be improved by developing uniformed processes and procedures. To obtain an overall picture of public investment, the IU should be able to coordinate with key providers to obtain information on all investment projects using federal funds including those from trust funds. All public investment projects (PPP or non-PPP) that use federal funds (including funds managed by non-organic trust funds) should be registered in the SHCP investment portfolio and undergo socioeconomic evaluation and rigorous assessment of the procurement options (if PPP).

55. The individual assessment of PPPs fiscal risks should be extended to include implicit fiscal risks, using tools like the PPP Fiscal Risk Assessment Model (PFRAM).[37] This information should be integrated into the overall fiscal risk management process. There is still no systematic identification of explicit and implicit fiscal risks arising from all PPPs awarded at the federal level. There is no evidence of any risk management unit monitoring aggregate PPP fiscal risks. As has happened in other countries, subnational governments' fiscal risks arising from infrastructure and PPPs[38] do create implicit fiscal risks for the federal government, and mechanisms should be put in place (by agreements with the states) for fiscal risks assessment to be conducted at state and municipal level and communicated to the SHCP for review and register. To help review and manage fiscal risks, the SHCP, PPP Unit could see its role extended

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[36] See OECD (2018) *Getting it Right: Strategic Priorities for Mexico*, https://dx.doi.org/10.1787/9789264292062-10-en

[37] The PFRAM, developed by the IMF and the World Bank, is an analytical tool to assess the potential fiscal costs and risks arising from PPP projects. For more information, see https://www.imf.org/external/np/fad/publicinvestment/

[38] These fiscal risks come from subnational governments' direct commitments to pay (such as in the case of Madeira Regional Government's road PPPs that had to be rescued by Portugal's central government when Madeira recognized it could not afford the availability payments) and from subnational contingent liabilities (such as in the case of YongIn's Everline light rail system PPP, in South Korea, where the municipal government accepted minimum-revenue guarantees it ultimately could not afford). In both cases, the explicit liabilities of SNGs were implicit liabilities of central government.

to major infrastructure projects, as it has happened in other countries (see Box 5).

Box 5. The Trend Towards Broadening Infrastructure Governance

Countries with large infrastructure programs have been introducing changes to their institutional framework for governing infrastructure. A few countries, such as Chile, have for many years published a yearly Report on Contingent Liabilities. Chile's report (see http://www.dipres.gob.cl/598/w3-propertyvalue-16136.html) covers explicit contingent liabilities arising from a variety of fields, including the pension system and PPPs, and presents itemized information of those risks and sensitivity analysis. In recent years, many other governments have created fiscal risk units and started publishing Fiscal Risk Statements where public investment and infrastructure are highly visible. As a matter of fact, infrastructure is a major source of fiscal risk in many countries.

Some countries with large infrastructure programs, and where the Ministries of Finance had PPP Units, have in recent years broadened the scope of those teams: Partnerships-UK was replaced by Infrastructure-UK; the French MAPPP, Mission d'Appui aux PPP, is now FinInfra, Mission d'Appui au Financement des Infrastructures, addressing all types of Infrastructure Finance. South Africa's PPP Unit was incorporated into GTAC, the Government Technical Advisory Centre, with a mandate for providing specialized procurement support, advice on the feasibility of infrastructure projects, and knowledge management for projects undertaken.

Source: Mission team

C. Allocating Investments to the Right Sectors and Projects

6. Multiyear budgeting *(Institutional Strength — Medium; Effectiveness — Low; Reform Priority — High)*

56. The Mexican government does not forecast capital spending over a multi-year period or establish multi-year ceilings for capital spending. Two macro-economic overviews are developed as part of the government's fiscal framework. The first, the *Pre-Criteria* report, is submitted to Parliament no later than April 1;[39] and the second, the General Economic Policy Guidelines report (the *Criteria* report), accompanies the budget on September 8th, other than in years of Presidential transition when the budget is submitted by December 15th. The *Pre-Criteria* document describes the macro-economic outlook, but only considers spending in the aggregate as a percentage of GDP. The General Economic Policy Guidelines report provides multiyear spending aggregates for the budget year and five outer years. It identifies capital spending as a percent of GDP over that period. However, no detailed budget estimates are developed by minister or program, and no data is provided, for the outer years. Capital spending is not divided between ongoing and new projects or allocated by function, agency or program. There are no budget ceilings for the outyears.

[39] Article 42 of the Federal Budget and Fiscal Responsibility Law.

57. All budget decisions in Mexico are made on an annual basis. Budget policy and spending priorities are developed each year. The budget and related reports that comprise the annual budget present data for the budget year and provide summaries by function, agency, and economic classification, but do not provide outer-year estimates.

58. The Mexican government does publish information on the total costs of individual projects. The project database that supports the investment budget does have substantial detail on project costs. This includes, the total project cost, amounts spent to date, current budget year funding and estimates for three outer years at the project level. The general public has open access to that database and are able to create lists of projects (for instance, by region or by public entity) and to obtain detailed information on each project, including the socioeconomic evaluation studies.

59. Implementing a medium-term budget framework would provide more information on the medium-term costs of public investment and facilitate better decision making. A medium-term approach to budgets (see Institution 3 above) provides a framework for informing public investment policy making. Many public investment programs extend beyond one budget year, some over multi-year horizons. Decisions to undertake a project should reflect the full cost of that project through its completion. An initial step, to obtain some basic information on medium-term costs could include summing the total of investment project outyear costs from the current *cartera* and providing summary outyear totals by sector, agency and program. The cost data for the outyears in the *cartera's* project database may not currently be rigorous or of high quality especially for the outyears. Building medium-term budget estimates for current and capital expenditures is a first step to improve the realism of budget requests and visibility of funding commitments for forward years. Medium-term projections should be updated annually together with the macro-economic projections. Binding decisions would still be for the budget year with indicative ceilings of the outer year.

7. Budget Comprehensiveness and Unity *(Institutional Strength – Medium; Effectiveness – Medium; Reform Priority – Low)*

60. The federal government's budget provides information on capital spending from most financial sources; some spending by trust funds is not included, as well as funding from subnational sources. There are different approaches for programs using alternative financing arrangements such as EPEs (PEMEX and CFE) and PPPs**.** The Federal government includes government entities, two social security funds (Instituto Mexicano del Seguro Social [IMSS]) for non-government workers, and Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado [ISSSTE]) for government workers and PCs. The PSBR target expands the budget coverage to include the extra-budgetary units (non-organic trust funds which comprise a set of accounts within a government ministry or entity which process transactions but have no separate legal/corporate identity); Fondo de Estabilizacion de los Ingresos Presupuestarios (FEIP), Fondo de Estabilización de Ingresos de las Entidades Federativas (FEIEF), Fideicomiso para la Infraestructura en los Estados (FIES), Mecanismo Financiero Piloto (MFP), Fondo Nacional de

Infraestructura (FONADIN), Fondo de Estabilizacion para la Inversión en Infraestructura de Petróleos Mexicanos (FEIPEMEX), and Fondo de Apoyo para la Reestructura de Pensiones (FARP)[40], the development banks, the IPAB, PIDIREGAS and the debt support program. The capital projects of these entities are not separately identified in the investment budget. Detailed tables in Tomo VIII show current and capital expenditure, including investment programs and projects by agency of government. PEMEX and CFE tables present similar information but are included as an annex in Tomo VIII. PPPs are also listed in a separate annex in Tomo VIII.

61. Capital spending is not integrated with current spending in policy discussions. Capital spending of SNGs is not considered spending of the Federal government, even if funded by funds transferred from the Federal government and is not included in the public investment budget. Capital spending is only integrated with current spending in summary tables, but not in budget policy discussions. There is a separate process for considering current and capital spending in the budget and ministries initially present their capital projects separately as part of the planning mechanisms. Capital spending priorities are developed by the IU of SHCP and current spending priorities are developed by DGs for expenditure. Agencies' capital project data are reviewed by the IU. PEMEX and CFE develop comparable registers of data, which are included in the SHCP database, but which are not reviewed by the IU. Substantial capital spending is undertaken by extra-budgetary entities, but most public investment is presented in the budget.

62. Budget detail is generally comprehensive, but budget documents do not integrate infrastructure funded from all sources. The omission from the budget of information on Federally funded investment projects of SNGs and non-organic trust funds' financed investment projects understates the scope of public investment. Information could be added to the budget on these activities in annexes presenting their unique characteristics, comparable to the treatment of PPPs in Tomo VIII. Investment project details could be organized by agency, function, and program. The budget would be improved by including more details on the spending of trust funds.

8. Budgeting for Investment *(Institutional Strength — Medium; Effectiveness — Medium; Reform Priority — Low)*

63. Investment programs are partially protected during budget formulation and implementation, but not over the medium term. The budget is developed within the context of a resource envelope for the budget year. Spending decisions are allocated between programmable and non-programmable spending. The budget requests for all spending reflect historical spending patterns, national planning goals, and government budget policy. Allocations between current and capital spending and among policy divisions by sector, agency, and program are made for the budget year. As described below under Institution 10, investment spending decisions are based on a prioritized ranking of capital projects. For investment

[40] See the IMF 2018 Fiscal Transparency Evaluation page 19 on including the non-organic funds: REIP, FEIEF, FIES, MFP, FONADIN, FEIPEMEX, and FARP.

spending, cost-benefit analyses, project status and future requirements are considered. The annual requirements for multi-year contracts and prior-year commitments are recognized and funded as part of the annual budget. Budget decisions are made, however, for the budget year only. During budget implementation, funding can be transferred from capital projects to current spending with approval of the SHCP.[41]

64. Multi-year capital projects are not protected directly, but funding requirements for on-going programs are recognized. Funding requirements for existing contracts ("plurianuales") are treated as non-programmable obligations and are protected in budget allocations. Outer-year costs of multi-year projects funded by annual contracts ("multianuales") are not protected but are considered by the IU in establishing priorities for funding public investment. The Mexican budget process does not provide separate allocations for ongoing and new investment projects. Some countries take this approach to give priority to completion of works in progress. Mexico, however, has devoted the great majority of its investment budget over recent years to making progress on or completing on-going projects.

65. More recognition should be given to the total cost and outer-year funding requirements of ongoing capital projects. The budget process has worked in Mexico to support investment project completion. Nevertheless, more emphasis should be given to total project cost and multi-year requirements. A medium-term approach to budgeting would facilitate a more strategic approach (see discussion under institution 6 above). Budget documents should highlight the full requirements of projects to inform decision makers and the public. This emphasis should result in a more realistic understanding of the funding and time requirements of proposed projects. This could be done by highlighting project completion in budget documents.

9. Maintenance Funding *(Institutional Strength — Medium; Effectiveness — Low; Reform Priority — High)*

66. Maintenance funding provisions are not in place in Mexico's budgeting. The adequate maintenance of public infrastructure is both a matter of keeping its ability to deliver service to users and optimizing the value of the assets (see Box 6). Maintenance and operations costs are required to be included in project proposals. Maintenance costs, along with other recurrent costs, are considered during project assessment. There is, however no mechanism for creating allowances for maintenance in future budget years as new capital expenditure is being approved. It is even common for maintenance programs to compete for resources against new construction projects. As the consequences of poor maintenance may not be as obvious or politically attractive as proposed benefits from new construction work, sectoral departments and agencies need to present evidence of the need for adequate standards for maintenance and capacity for implementing them. Without this information it will be difficult for SHCP to protect

[41] Article 59 (a) of the Federal Budget and Fiscal Responsibility Law.

maintenance funding in future budgets. Conversely, PPP projects are structured in such a way that funds for maintenance will be available for the long term.

Box 6. Public Infrastructure Maintenance

In Mexico, the Public Works Law requires that project preparation includes a study on maintenance, and that maintenance manuals are available upon construction completion. Several departments and agencies have developed standards for maintenance. Adequate maintenance allows public infrastructure to keep delivering service to users over its (usually long) life and protects those users from malfunctions. Potholes in roads, poor lighting in schools, and leaks in water pipes, are usual results from inadequate maintenance; but it may also lead to life-threatening results, such as the failure of critical equipment in a hospital.

Adequate maintenance is also critical for optimizing the life-cycle cost of infrastructure. A review of road maintenance by the South African National Roads Agency indicates that delaying road maintenance for three years leads to cost increases of 6 times the original costs of preventive maintenance; if maintenance is delayed for five years, costs rise to 18 times the preventive cost.

Source: South African National Roads Agency, *Annual Report 2004*, *www.nra.co.za/content/sanralAR04.pdf*

67. Standard methodologies for determining requirements for routine maintenance and major improvements exist for some but not all types of infrastructure assets. SHCP does not establish guidelines for maintenance funding. Some ministries responsible for fixed assets have established program-specific maintenance standards. The Secretaries of Health and Energy have developed maintenance standards for assets they operate. The Secretary for Communication and Transport has developed a road conservation program to identify maintenance and improvement requirements. In some instances, this ministry has used PPPs to rehabilitate, operate and maintain some of its highways. FONADIN maintains and operates 46 highways taken over from failed PPPs. PEMEX has a five-year maintenance program, which is updated annually and is funded by PEMEX. A subjective perception from operating agencies was that maintenance was being underfunded. Maintenance projects are visible in the investment budget; all are coded with a standard code (K027) which is identifiable in the project listings. There is no comparable coding to identify maintenance in the budget for current operations. Maintenance and improvement requirements and funding are not highlighted or summarized in the tables of the budget.

68. Developing a standard methodology for determining maintenance requirements for all types of infrastructure assets, and budgeting for them, is a high reform priority. This will ensure savings over the life cycle cost of the facility. Current practices for determining routine maintenance are not credible and may result in poorly maintained facilities. A top-down approach for capital budgeting should protect adequate minimum funding for maintenance of the stock of public infrastructure. When implementing a top-down approach to the budget, it is important to increase the share of the budget directed toward maintenance and rehabilitation expenditure to prevent degradation of the existing capital stock. In the budget process, it is important to identify the level of spending required to maintain infrastructure at a steady-state level, using a regularly updated register of infrastructure assets to determine appropriate maintenance levels.

10. Project Selection *(Institutional Strength — High; Effectiveness — Medium; Reform Priority – Low)*

69. The process for the selection of public investment projects for the Federal budget is governed by Article 34 of the Federal Budget and Fiscal Responsibility Law. The Law is supplemented by Project Selection Guidelines. Following the criteria set out in the Law, selection[42] is carried out in two phases; the first-level prioritization is for what is called "irreductible investment" (e.g. pluri-annual projects, on-going projects and maintenance for productive infrastructure, followed by administrative acquisitions and maintenance; and then new projects). The second level of prioritization (primarily for new or re-formulated projects) uses the following criteria: (i) progress on feasibility studies; (ii) Net Present Value (NPV); (iii) regional impact; (iv) extensiveness of beneficiaries; and (v) support to the Green Budget initiative. Each project is ranked following a valuation of all projects based on weights assigned to each of these 5 criteria.[43] The project ranking relative to the total expenditure budget ceiling (see discussion of the ceiling below) generates the list of selected projects. This IU approved list of projects is reviewed and formally approved by the Inter-ministerial Commission for Public Expenditure, Financing and Disincorporation (*Comisión Intersecretarial de Gasto Público Financiamiento y Desincorporación*).

70. While the selection of projects by the IU for inclusion in the budget is primarily a technical exercise,[44] project selection follows a clear, criteria-based and consistent process. This process is applied to all ministry submitted projects approved by IU and registered in the project portfolio. Nonetheless, additional projects of up to 10% may be proposed by Congress for inclusion in the budget. These projects must be registered in the *cartera* and thus go through the same review and selection process by IU required for ministry submitted projects, including the carrying out of socioeconomic and financial analyses. In principle, the IU can reject poor projects. Active project selection by the IU is limited to projects funded by the Federal budget; other projects funded by non-budgetary sources, e.g. EPE public corporations such as PEMEX or CFE, or extra-budgetary sources and from some trust funds are not part of the selection process (see Box 7).

[42] Project selection is Stage 3 of the Investment Planning/Budgeting process discussed in Box 3.
[43] The criteria for the two phases are set out in the FRL but not the weights assigned to each.
[44] For the incoming administration, the president-elect announced that 10 investment projects and social programs would be submitted to a public consultation to be included in the 2019 budget.

Box 7. Classification of Investment Projects by Extent of Coverage in IU Process

1. **Projects included in IU-managed process and in the portfolio (*cartera*)** (est MXN 403 bn)	2. **Projects reported to the IU for inclusion in the portfolio (*cartera*)** (est MXN 250 bn)	3. **Projects not in IU-managed process, not reported to IU and not in the *cartera***
Projected funded by Federal ministries	Projects funded by EPE public corporations (PEMEX and CFE)	Projects funded by non-EPE public corporations – Paraestatales
Projects funded by sub-national governments using earmarked Federal grants	PPP projects funded by EPE public corporations (PEMEX and CFE)	Projects funded by autonomous government agencies
PPP projects partnered by Federal ministries		Projects funded by extra-budgetary entities (including Trust Funds), excluding the non-reimbursable portion of Fonadin
Projects funded by the non-reimbursable portion of Fonadin		Projects funded by sub-national governments using *participaciones* (revenue-sharing) or their own revenues
		PPP projects funded by the above types of institutions

Sources: IMF Staff based on information provided by SCHP.

71. **While a pipeline of good quality-assessed projects is in place and active projects in the pipeline are eligible for funding for three years, the focus of funding is the coming budget year, rather than a forward focus for project planning**. As such, while the project portfolio (*cartera*) contains projects covering multiple years, it is not a true tool for selecting projects for funding over the medium term, which would require the inclusion of projects that were not scheduled to begin in outer years (e.g. budget year plus 2). The introduction of a medium-term focus to budgeting (see Section B) would address this issue.

D. Delivering Productive and Durable Public Assets

11. Procurement *(Institutional Strength — High; Effectiveness — Medium; Reform Priority — High)*

72. **The legal framework requires all public investment to be tendered competitively, and relevant information must be disclosed to the public.** The requirement for competitive procurement is a constitutional principle in Mexico and has been inserted into several pieces of legislation, with major projects being open and transparently procured. Nevertheless, the Public Procurement Law and Public Works Law regulations allow for too many exceptions to the competitive route, resulting in most smaller projects being directly awarded. Detailed information on the procurement process, including the procurement plan, information notices, and award notices, is publicly disclosed through CompraNet, the electronic procurement portal that serves also as mandatory registry (and disclosure portal) for Federal government procurement. The general public can browse and download procurement data from CompraNet, which has hundreds of thousands of public contracts in a single file, however no procurement statistics or analyses are provided. Procurement complaints follow an independent and

transparent review process, controlled by the Ministry of Public Administration, and conducted in a fair and timely way, with final decisions published in CompraNet.

73. Most major investment projects are transparently and competitively procured, however most smaller projects are not competitively procured. For contracts above one million pesos, direct award is used for 33% of the contracts which amounts to 58% of the financial value of all contracts (see Table 4). However, the picture is very different for smaller projects which make up the majority of projects, in number, but not financial value. Out of the 228,000 public contracts awarded in 2017, only 12% were subject to public tender, with 78% directly awarded, and the remaining 10% subject to the negotiated procedure (invitation to at least three suppliers). Projects which are subject to public tender (even large projects) face some restrictions to effective competition. For instance, terms of reference are designed to restrict competition and many bids not accepted, either based on small legal technicalities or "abnormally low prices". Despite the abundance of information on public procurement, there is no evidence that it is being used by the contracting authorities or the procurement system to guide reform and promote better practices. Late budget allocation tends to concentrate bidding in the second half of each year, creating pressure for shorter work completion deadlines (which lead to lower competition, as some potential bidders cannot cope with too short deadlines) and procurement activities are sometimes also adversely affected by slow budget reallocations.

Table 4. Percentage of Contracts by Procurement Type, in 2017

Procurement type	For all contracts	For contracts above 1 million pesos
Direct award	78%	33%
Negotiated procedure (invitation to at least 3 suppliers)	10%	29%
Open public tender	12%	38%

Source: Computation by COFECE based on CompraNet data. See COFECE (2018) *Agenda de Competencia para un ejercicio íntegro en las Contrataciones Públicas*.

74. The Mexican Competition Authority, COFECE, has presented a good portfolio of concrete recommendations for the implementation of effective competition in public procurement. These recommendations (see Box 8) address mainly the introduction of good practices in designing and implementing procurement plans. This can be put in practice immediately, without requiring changes to the legislation. Recommendations also identify loopholes in the legal framework that may be corrected in a future revision of the public procurement legislation. For instance, the too permissive exceptions to mandatory public tender in the Public Works Law and regulations (e.g. Articles 41-43), and in the PEMEX Act and others. Mandatory standard procurement documents (bidding documents, contracts, evaluation criteria, evaluation reports, etc) should be developed.

Box 8. Recommendations for Competition in Public Procurement

Several reports published by COFECE and OECD produce a very useful set of recommendations to help make Mexico's public procurement more competitive. Some of those recommendations require changes in law, but most can be implemented under the current legal framework. A sample of recommendations include:

a) Limit the use of exceptions to open tender procedures;

b) Avoid charging potential bidders for the tender documents required to present a bid;

c) Increase the use of functional requirements instead of prescribing technologies and materials;

d) Avoid physical clarification meetings (opportunities for bidders to collude);

e) Eliminate prequalification procedures which restrict participation to preselected bidders only;

f) Do not exclude bids under a certain price threshold (exclude only if bidders cannot justify their prices);

g) Avoid changes of scope and contract modifications;

h) Set up regular training of public procurement officials on how to avoid collusion;

i) Create incentives for public procurement officials to fight bid rigging;

j) Temporarily exclude bidders convicted for having participated in bid rigging;

k) Create a hotline and a system to report suspicions of bid rigging;

l) Establish closer co-operation between procurement authorities and COFECE.

Sources: OECD (2016) *Fighting bid rigging in Mexico: A review of the procurement rules and practices of PEMEX in Mexico* (*http://www.oecd.org/mexico/fighting-bid-rigging-mexico-pemex-review-2016.htm*); OECD (2017) *Public Procurement Review of Mexico's PEMEX: Adapting to Change in the Oil Industry* (http://dx.doi.org/10.1787/9789264268555-en); OECD (2018) *Fighting bid rigging in Mexico: A review of CFE procurement rules and practices* (http://www.oecd.org/competition/fighting-bid-rigging-mexico-cfe-report-2018.htm); COFECE (2018) *Agenda de Competencia para un ejercicio íntegro en las Contrataciones Públicas* (https://www.cofece.mx/wp-content/uploads/2018/07/CPC-ContratacionesPublicas.pdf#pdf).

12. Availability of Funding *(Institutional Strength – Medium; Effectiveness – Medium; Reform Priority – Medium)*

75. Although monthly cashflow forecasts are prepared, ministries are not provided with commitments ceilings for the full fiscal year. The system distinguishes between "*multianuales*" — projects whose scope is multi-annual but the contracting is done on an annual basis only and funding is determined yearly — and the very few "*plurianuales*" — projects whose contracts are signed for at least two years and funding legally assured for the duration of the contract (FRL article 32). Ministries are authorized to commit capital projects expenditure up to the full budget allocations. SHCF's Treasury centralizes all payments. Ministries submit payment orders to the SHCF's Treasury which makes payments on their behalf.[45] The Treasury ensures cash availability. The Treasury is responsible for mobilizing resources to meet government obligations, including through debt issuance when needed.[46] Donor funding is fully integrated

[45] Request are made through TESOFE's "Sistema Integral de Administracion Financiera Federal" – SIAAF.

[46] See art.51 and 52 of the Federal Budget Law *Ley Federal de Presupuesto y Responsabilidad Hacendaria* (LFPRH)

into the main government bank account structure (FRL article 36). It is earmarked for capital spending, and the chart of account allows to track it and report it in *Cuenta Pública*.

76. Ministries do not have commitment ceilings and sometimes experience unscheduled cutbacks, including to ongoing projects. Annual commitment ceilings enable ministries to plan and commit capital projects expenditure in an efficient and timely manner. Lack of certainty over available funding, delays in payments and cutbacks in-year impact project implementation. In the past few years, there was significant in-year cutbacks to a number of ongoing projects due to fiscal consolidation efforts**.** When cutbacks happen, for instance as a result of lower than expected revenue performance or other factors, "*plurianuales*" are protected but "*multianuales*" may not be. The Supreme Audit Institution has documented cases of cutbacks during project implementation leading to unfinished projects.[47]

77. Although the Treasury strives to pay within 48 hours following receipt of a payment order from a ministry, there is no systematic monitoring of payment delays. Ministries reported that it is common for them to return to Treasury significant unspent balances at the end of the year due to delays in project approvals. Once Ministries' projects are approved, cash is generally released fast.[48] This was echoed by SNGs for whom projects funded by the federal government take too long to approve – generally between five to seven months – leaving only less than half of the year to implement projects, which leaves them with significant unspent balances to be returned at the end of the year. The practice of returning unspent balances at the end of the year also concerns ongoing projects - in particular the "*multianuales*" for which funding is not guaranteed beyond one year - this may hamper their smooth implementation. Only amounts committed before the end of the year are allowed to be paid during the first quarter of the next year. Furthermore, procurement plans are prepared after budget approval, which contributes to delaying project implementation.

78. Updating treasury systems to provide annual commitment ceilings to ministries would make funding for capital spending more predictable. Commitment ceilings should be provided for a full fiscal year to allow better planning of capital projects expenditure by ministries. Monthly cashflow forecasts by ministries should take into account the spending patterns, beyond the mere budget allocations. This information is crucial for the SHCP's Treasury in consolidating the government's cashflow forecast. A provisional procurement plan, and a commitment plan, should be prepared two to three months prior to the beginning of the fiscal year in order to speed up project implementation as soon as the budget is passed.

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[47] For example, the Supreme Audit Institution's 2012 report, reviewed 80 contracts and found incomplete/unfinished projects, which it attributed to among other things budget reductions during the implementation period.

[48] But in the absence of a monitoring system for payment delays, there is no evidence that TESOFE's service standard of making payments within the stated 48 hours is always observed, or if there were any exceptions.

13. Portfolio Management and Oversight *(Institutional Strength — Medium; Effectiveness — Medium; Reform Priority — Medium)*

79. The SHCP Investment Unit has a strong centralized portfolio management system. Project monitoring is conducted at the agency level, however information on cost and physical progress of the entire portfolio is centralized. The SHCP's IU maintains a database of projects, and ministries access it to report financial and physical progress of capital projects in their respective sectors, on a monthly basis, as required by current guidelines.[49] The database includes projects with federal funding. Whereas adjustment procedures for individual projects are well-defined (see Institution 14), there are no procedures for funds reallocation between projects within the portfolio. During project implementation, ministries and other implementing entities can request reallocation of funds between projects which require the approval of the SHCP. They are considered on a case-by-case basis, due to the lack of portfolio-wide review procedures. Ex-post reviews of some major projects[50] are undertaken, often by independent experts, and their results published, but these reviews are limited in scope. The SHCP's IU selects projects for ex-post reviews from its centralized database and communicates the list to ministries which are responsible for conducting the reviews. In other countries, a challenge with spending ministries conducting reviews of their own projects is that these reviews tend to be always positive.

80. Despite the existence of a centralized monitoring system for financial and physical progress, consolidated data on cost over/underruns, and on implementation delays, is not readily available, nor used for decision-making or learning purposes. There are examples of cost overruns, delays in project implementation and changing project scope.[51] If needed, information on cost overruns and implementation delays can be obtained on a project-by-project basis, but it is not presented in summary tables for use in decision-making. The few ex-post reviews of completed major projects conducted each year focus generally on project cost and deliverables, and rarely on output and impact or alternative ways of project delivery. The results of ex-post reviews are not an important input into the budget process but may sometimes lead to adjustments of project management guidelines issued by the SHCP's IU each year.

81. Developing a system to track and report on consolidated project cost over/underruns and implementation delays can significantly improve the usefulness of the centralized project monitoring system. There is a need to move the focus of project monitoring beyond compliance towards efficiency. This can be achieved by (i) systematically

[49] Guidelines for monitoring the execution of investment programs and projects, long-term productive infrastructure projects and PPP projects of the Federal Public Administration (Lineamentos para el seguimiento del ejercicio de los programas y proyectos de inversión, proyectos de infraestructura productiva de largo plazo y proyectos de asociaciones público-privadas, de la Administración Pública Federal).

[50] The operational definition of "major project" is any investment project above 500 million pesos.

[51] The Supreme Audit Institution has reported cost overruns and implementation delays, see for example the 2012 report.

conducting ex-post reviews for most major projects; and (ii) improving the scope of ex-post reviews to cover not only costs and deliverables, but also output and impact when possible.

14. Management of Project Implementation (*Institutional Strength — Medium, Effectiveness — Medium; Reform Priority – Medium)*

82. Detailed financial plans are prepared prior to budget approval, but implementation plans are prepared after budget approval. Senior project managers are systematically identified for major projects, and ministries submit financial plans every year, before budget preparation. Project implementation plans also are prepared annually for major projects, but only after budget approval. Standardized rules and procedures for project adjustments exist for major projects and if needed can require a fundamental review and reappraisal of a project's rationale, and expected outputs.[52] Furthermore, extensive audits of ministries' accounts and of the government's consolidated financial statements are undertaken annually by the Supreme Audit Institution, which covers project spending as part of its financial audits. They also examine separately some investment projects, but there is no evidence that most major capital projects systematically undergo an ex-post external audit.[53]

83. Preparation of implementation plans after budget approval by Congress can lead to delays in project implementation. Despite the existence of standardized procedures for project adjustments, ministries generally limit project adjustments so that they are below the cost ceiling that would trigger a fundamental review and resubmission of project. Thus, fundamental changes such as on project rationale, objectives, and expected outputs, do not often trigger a fundamental review. The lack of systematic ex-post external audits of all major capital projects limits legislative scrutiny. For example, the 2017 audit report of the Supreme Audit Institution includes findings related to public works such as differences between estimated, paid and actual volumes; payments made on the basis of incorrect unit costs, payments for unexecuted or undocumented works, lack of environmental assessments, etc. but there is no evidence that all major projects are systematically subjected to such audits.

84. Requiring ministries to prepare implementation plans for major projects prior to budget approval can help to speed up implementation as soon as the budget is approved. Implementation plans could be prepared and submitted at the same time as the project's financial plan. Implementation plans for major capital projects should be communicated to the

[52] The existing procedures consider that an investment program or project has modified its scope when the total amount of investment varies by more than 25 percent in real terms, with respect to the amount foreseen in the last cost-benefit analysis presented to register the program or project in the SHCP's portfolio. Beyond this margin, a project has to be reappraised and resubmitted for SHCP's review. Below this margin, a request for reallocation of funds has to be submitted for SHCP's approval. See procedures on "Reallocation and Budgetary Adjustments for Public Investment Projects" (Reasignaciones y adecuaciones presupuestarias para Programas y Proyectos de Inversión - Ampliaciones y reducciones MAP)

[53] For example, for 2017 the ASF audit program included: 13 projects by CFE and PEMEX; 2 projects in the energy sector; and 58 projects in the transport sector.

Supreme Audit Institution for inclusion in its audit plan, which would allow for systematic ex-post audits to be programmed and conducted and reported to the legislature.

15. Monitoring of Public Assets *(Institutional Strength – Medium; Effectiveness – Low; Reform Priority – Medium)*

85. Since 2012, Mexico has been implementing accrual-based accounting.[54] Asset registers exist in ministries and entities but are not consolidated. Non-financial assets are recognized at historical cost. Government financial statements include the value of some non-financial assets, which are updated only irregularly based on major events such as disposals and new acquisitions. The Organic Law on Federal Public Administration requires the SHCP to maintain a register of federal fixed assets. An institute for the valuation of government assets exists within the SHCP (*Instituto de Administración y Avalúos de Bienes Nacionales*). Government fixed assets are not depreciated despite the recent introduction of accrual accounting.

86. Non-financial assets reported in the government financial statements are incomplete. They include only assets such as buildings, cars — so-called immovable and movable assets — but exclude large assets such as airports and highways which are recorded as expenditure instead of non-financial assets. Expensing large assets understates government's non-financial assets, which may hamper their monitoring. There are mechanisms to value and revalue government assets through the Valuation Institute within the SHCP, but these are not integrated with government accounting, which only uses historical cost, with no depreciation. In addition, assets registers are dispersed in government entities with no single register of government assets. The absence of comprehensive information on the government's assets may prevent the development of an optimal maintenance program or the determination of changes in the nation's patrimony from year to year as a result of investment expenditure.

87. There is a need to review the current accounting practices to better reflect the value of non-financial assets. This can be done by: (i) recognizing airports, highways and other large assets as non-financial assets in the government's balance sheet; and (ii) introducing assets-specific assumptions to guide the depreciation of fixed assets. Also, integrating the work of the Valuation Institute within the SHCP with the Government Accounting Unit can help capture the value of the government's assets based on actual valuations and/or revaluations.

[54] Public Sector accounting standards in Mexico are issued by the National Council for Accounting Harmonization 'Consejo Nacional de Armonizacion Contable' - CONAC, instituted by the Government Accounting Law (*Ley General de Contabilidad Gubernamental*).

IV. RECOMMENDATIONS

88. This section presents the mission's recommendations on how to strengthen public investment management in Mexico based on the analysis in this report. The recommendations discussed below are grouped according to the priorities.

A. High Priority Recommendations

Recommendation 1: Strengthen fiscal discipline by improving the medium-term fiscal framework, the application of fiscal rules and the independent oversight of fiscal planning

Issue: Fiscal policy has mostly focused on the annual horizon; a more medium-term orientation would improve planning, predictability and decision making. The frequent use of the deficit rule's escape clause has the potential to undermine the rule. Independent external review of the government's medium-term macro-fiscal projections and compliance with fiscal rules is limited.

Recommendation: Strengthen fiscal discipline by improving the medium-term fiscal framework, the application of fiscal rules, and the independent oversight of fiscal planning.

Implementation measures:

Short-term measures

- Amend the FRL to restrict the use of the escape clause to exceptional circumstances, that is cases of very significant output shocks, including due to significant disruptions in the oil price.
- Establish a provision requiring the specification of a clear and swift path back to the fiscal rule after the exceptional circumstance clause is invoked.
- Introduce an independent body to review and assess the quality of the macro-fiscal projections, including compliance with fiscal rules and the realism of the debt sustainability path.

Medium-term measures

- Strengthen the medium-term fiscal framework by expanding the coverage and the analysis in the *Pre-Criteria* report and include more information on the fiscal strategy, including more in-depth discussion and analyses of fiscal policy objectives and medium-term fiscal parameters, including fiscal risks.
- Require public corporations and entities with PPP contracts to provide annual reports of their fiscal risks (including contingent liabilities) to SHCP.
- Provide more disaggregated expenditure projections over the medium-term.
- Consider establishing or setting a medium-term debt limit initially for internal purposes, then externally.

Recommendation 2: Improve the effectiveness of national and sector strategies to guide investment project planning

Issue: A clear national and sectoral planning framework with strategic objectives is in place but the plans do not effectively guide ministries' investment planning. Strategies are not based on likely resource availability, and costing information is very limited.

Recommendation: Improve the effectiveness of national and sector strategies to guide investment project planning.

Implementation measures:

Short-term measures

- Prepare national and sector plans within a realistic medium-term resource framework.
- Concentrate in the national and sector plans on a limited number of high priority strategic objectives that can realistically be achieved within the available resources.
- Provide realistic desired outcomes and targets for key strategic objectives over the medium-term, based on likely available resources.
- Link the strategic objectives in the national/sector plans to the investment project allocations in the rolling medium-term budgetary framework.

Medium-term measures

- Review the national and sector plans at the mid-point (after 3 years) to reflect changes in economic or policy circumstances.
- Train SHCP and ministries staff on the development of results framework for investment projects and its linkage to the sector/institutional programs.

Recommendation 3: Strengthen medium-term budgeting and planning

Issue: There are only weak links between investment planning and budgeting, and sector plans do not effectively guide ministries' strategic investment budget allocations. This results in a long wish-list of projects submitted to SHCP for potential budget financing, leading to significant time spent by staff on projects which end up not getting funding. Since investments are typically medium-term in length, the current annual focus for the budget is inconsistent with efficient planning.

Recommendation: Introduce a rolling medium-term budget framework for both capital and current expenditures, which will support more strategic and efficient investment planning.

Implementation measures:

Short-term measures

- Develop the methodology for preparing a rolling medium-term budget framework process to cover both current and capital expenditures.
- Draft Guidelines for the preparation of the rolling MTBF.
- Train staff in SHCP and in sector ministries in the new methodology.

Medium-term measures

- In conjunction with the strengthened medium-term fiscal framework, consider developing top-down medium-term ceilings by ministry earlier in the process (at the beginning of budget preparation).
- Develop a methodology and a simple model for ministries to prepare expenditure baseline projections for their programs, covering both current and capital expenditures.
- Develop baselines estimates of existing project spending and identify available fiscal space for new projects.
- Train SHCP and sector ministries' staff in the preparation of baseline projections.
- Begin implementation of the rolling MTBF including baseline projections.
- Establish a rolling investment costing exercise linked to the MTBF and consistent with expected results and investment goals for overall federal investment.

Recommendation 4: Improve coordination between the Federation and states

Issue: Federal transfers (*Ramo 33, 23* and *Convenios*) are a significant and valued source of funding for public investment at the subnational level. However, as currently defined, they also introduce distortions in budget management and investment performance. There is a lack of effective and sound coordination within a longer-term perspective. Late budget allocations and a short period for budget execution generates fragmentation. Current coordination mechanisms are ad hoc and not effective. Federal and subnational plans are not shared or aligned as needed, and investment planning decisions are independent at each level.

Recommendation: Improve the mechanisms for coordination of the medium-term public investment plans of federal and subnational levels. Improved coordination will help to enhance efficiency and synergies in the planning and prioritization of investments.

Implementation measures:

Short-term measures

- Consider establishing a joint federal and state investment coordination committee(s) to promote strengthening medium-term planning, encouraging active consultation, transparency and regular sharing of information between Federal and SNGs, particularly in terms of their medium-term and annual investment plans (particularly, State plans), and fostering capacity building in subnational governments for budgeting and planning.

- Require State-level governments accessing Federal funds to provide annual reports on their fiscal risks, including explicit and implicit contingent liabilities.

Medium-term measures

- Review the *Convenios* structure and the operating rules for *Ramo* 23.[55,56]
- Include in the registry all investment projects funded under *Ramo 33*, using the *cartera* to structure investment pipelines per State and then agreeing with SNGs on priority and strategic projects that require federal funding.
- Ensure that SHCP investment systems (SEFIR, RFT, Modulo Cartera) are interrelated and allow for a comprehensive perspective of federal public resources transferred to States as well as for a systematic follow up.

Recommendation 5: Develop a standard methodology for determining maintenance funding requirements, for all types of infrastructure assets, and budget for them

Issue: Maintenance of assets created from capital spending remains underfunded due to the lack of systematic assessment of needs. Neglecting maintenance needs risks impairments to assets, ultimately resulting in a loss of asset productivity and in lower service/revenue generation potential. Postponing maintenance may also mean higher future maintenance costs and, in many cases, lower value from future maintenance.

Recommendation: Implement a top-down approach for maintenance of capital assets to provide adequate minimum funding for asset maintenance. When implementing a top-down approach for maintenance of capital assets, increase the share of the budget directed toward maintenance and rehabilitation expenditure to prevent degradation of the existing capital stock. In the budget process, try to identify the level of spending required to maintain infrastructure at a steady-state level, using a regularly updated register of infrastructure assets to determine appropriate maintenance levels.

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[55] Additional the following elements should be identified, consistency with the state´s results framework, development of an implementation plan, the full budget cost of the project and expected delivery calendar for the full period, definition of budget allocations according to the implementation plan and approval date of the *Convenio* identifying resources allocated in the current fiscal year and expected allocations in future fiscal year, over the lifetime of the project.

[56] The operating rules for *Ramo 23* should consider a long-term perspective for project investment; ensure alignment of federal-state results frameworks; requiring a sustainability path for investments projects; providing transparency and certainty on budget allocation; establishing a calendar of allocations according to the approval date and lifetime of the investment project; and to register and prioritize budget needs and commitments for the completion of the approved project in the next fiscal year as required by the lifetime of the project.

Implementation measures:

Short-term measures

- SHCP should require agencies to establish program appropriate maintenance standards.
- Agencies should regularly survey their capital stock to determine maintenance needs and funding requirements.
- Agencies should report to SHCP annually on maintenance: operations, needs, and funding requirements.
- SHCP should provide summary presentation on maintenance highlighting expenditures by agency and program.

Medium-term measures

- SHCP should review maintenance (operations, needs and expenditures) to determine whether appropriate resources are being allocated to maintain public capital stock.
- Expand registers of infrastructure assets and ensure that they are updated on a regular basis to support determination of appropriate maintenance levels.

Recommendation 6: Promote more competitive tendering and pro-competition culture among public procurement officials

Issue: According to COFECE, in 2017 only 12% of contracts registered in CompraNet were subjected to competitive tender; among contracts above one million pesos, only 38% were subjected to competitive tender. Competition authorities and regulators have raised the need for effective competition in public procurement and in infrastructure markets and have proposed methods for fostering competition.

Recommendation: Procurement procedures and regulations should be revised to promote open and competitive procurement. Review and implement reform proposals that do not require legislative changes and disseminate them among contracting authorities. Develop an extensive training program to re-train all procurement officials, creating a culture of competition in public procurement. The standardization of tender documents, already initiated by some government departments, should be extended to all main procuring entities. In the medium-term, a review of public procurement should lead to a codification of federal public procurement into a single Public Procurement Law.

Implementation measures:

Short-term measures

- Review and compile the concrete recommendations on public procurement presented by COFECE, OECD and other entities, identifying the ones that can be implemented without changes in law.
- Disseminate those recommendations among procurement officials.
- Structure, with support from COFECE and OECD experts, a training program for procurement officials, aiming at pro-competitive innovation in public procurement.

- Implement the training program.
- Establish deadlines for each main government procuring entity to produce standardized tender documents and submit them to COFECE for review.

Medium-term measures

- Define performance indicators for public procurement and use electronic procurement platforms to monitor them and publish periodic analytical reports on the performance of public procurement.
- Make the use of standard procurement documents mandatory.
- Review public procurement practices and results, identifying opportunities for improvement within the current legal framework, and legal rules that should be revised to promote more competitive, fair, transparent and efficient public procurement.
- Compile the legislation addressing federal public procurement into a single Public Procurement Law incorporating the results of the procurement review.
- Invite SNGs to share public procurement experiences and best practices with the federal government and public corporations, and promote the harmonization of the legal frameworks across levels of government.

B. Medium Priority Recommendations

Recommendation 7: Improve the comprehensiveness and quality of public investment planning

Issue: With the extent of the investment planning process actively managed by IU limited to projects funded by the Federal budget (notwithstanding the reporting by some entities to IU of their projects for inclusion in the *cartera*), the overall transparency of public investment is not comprehensive. Non-comprehensive information makes it difficult to assess the trade-offs of investments across the Federal government and hence the extent to which public investment is contributing to achieving the government's strategic objectives.

Recommendation: Increase the comprehensiveness of public investment project information in the *cartera*.

Implementation measures:

Short-term measures:

- Require extra-budgetary entities (non-organic funds) and all public corporations to provide to the IU with information on their planned public investment projects and upload relevant related documents to the IU portal (including financial and socioeconomic assessments). This data would be for information purposes and would not undermine the legal independence of these entities.

Medium-term measures

- Introduce a process of external reviews of cost-benefit analyses for key investment projects.
- Include in the registry all public corporations' and extrabudgetary units' investment projects funded under *Ramo 33*.
- Standardize the formulation and evaluation requirements for projects funded through *Ramo 23*.

Recommendation 8: Improve the predictability of funding for major capital projects

Issue: The availability of resources over the lifetime of the project, and sometimes during the year, is not certain, except for the so-called "*plurianuales*". Although previous year commitments are paid during the three to four months of the following year, there are no multi-year appropriations, and ministries are not provided cash commitment ceilings covering the full fiscal year, with which they could plan and commit their capital projects expenditures.

Recommendation: Make funding for major capital projects more predictable to allow ministries, agencies to plan and implement projects as effectively as possible.

Implementation measures:

Short-term measures

- Update treasury systems to provide commitment ceilings to ministries for the full fiscal year in order to allow them to prioritize major capital projects within the ceilings (this is a best practice).
- Prepare a provisional procurement plan and a commitment plan, two to three months prior to the beginning of the fiscal year in order to speed up project implementation as soon as the budget is passed.

Medium-term measures

- Introduce carry-forward of budget authority for multi-year capital projects within established, clear and transparent limits.

Recommendation 9: Strengthen the monitoring of cost overruns and project delays

Issue: Consolidated data on cost over/underruns, as well as on implementation delays, is not readily available, nor used for decision-making or learning purposes. This is despite the existence of a centralized monitoring system for financial and physical progress. The current system can capture information on cost overruns and implementation delays on a project-by-project basis but it does not present aggregate figures in summary tables which could facilitate decision-making. The few ex-post reviews of major projects conducted each year focus generally on project cost and deliverables, and rarely on output and impact or alternative ways of project delivery. The results of ex-post reviews are not an important input into the budget process.

Recommendation: Develop a system to track and report on project cost over/under-runs and implementation delays; use this information to identify areas of risk and to improve implementation; and move the focus of project monitoring beyond compliance towards efficiency.

Implementation measures:

Short-term measures

- Prepare quarterly summary tables on cost over/underruns and implementation delays for policy makers, pulling data from information provided by ministries in the current database.
- Systematically conduct ex-post reviews for most major projects, identify areas of risk, and use the results in the budget process.

Medium-term measures

- Improve the scope of ex-post reviews for major projects to cover not only costs and deliverables, but also output, impact and alternative ways for project delivery.

Recommendation 10: Enhance capital projects management and control during the execution stage

Issue: Detailed financial plans are prepared prior to budget approval, but implementation plans are prepared after budget approval, which can lead to delays in project implementation. Furthermore, legislative scrutiny is limited by the lack of systematic ex-post external audits of all major capital projects.

Recommendation: Require ministries to prepare implementation plans for major projects prior to budget approval to help speed up implementation as soon as the budget is passed by Congress.

Implementation measures:

Short-term measures

- Prepare and submit project implementation plans for major projects at the same time as the project's financial plan.

- Communicate project implementation plans to the Supreme Audit Institution for inclusion in its ex-post projects audit plan.

Recommendation 11: Improve the accounting and evaluation of assets

Issue: Non-financial assets reported in the government financial statements are incomplete. They include only assets such as buildings, cars and exclude large assets such as airports and highways which are recorded as expenditure instead of non-financial assets. There are mechanisms to value and revalue government assets, but these are not integrated with government accounting, which only uses historical cost, with no depreciation.

Recommendation: Review the current accounting practices to reflect better the value of non-financial assets.

Implementation measures:

Short-term measures

- Review the current accounting practices to reflect better the value of non-financial assets by: (1) recognizing airports, highways and other large assets as non-financial assets in the government's balance sheet; and (2) introducing assets-specific assumptions to guide the depreciation of fixed assets.

Medium-term measures

- Integrate the work of the Valuation Institute within the SCHP with the Government Accounting Unit in order to capture the value of government assets based on actual valuations and/or revaluations.
- Review the accounting standards for non-financial assets valuation and revaluation.

Annex I. PIMA Questionnaire

A. Planning Sustainable Levels of Public Investment				
1. Fiscal targets and rules: Does the government have fiscal institutions to support fiscal sustainability and to facilitate medium-term planning for public investment?				
1.a.	Is there a target or limit for government to ensure debt sustainability?	There is no target or limit to ensure debt sustainability.	There is at least one target or limit to ensure central government debt sustainability.	There is at least one target or limit to ensure general government debt sustainability.
1.b.	Is fiscal policy guided by one or more permanent fiscal rules?	There are no permanent fiscal rules.	There is at least one permanent fiscal rule applicable to central government.	There is at least one permanent fiscal rule applicable to central government, and at least one comparable rule applicable to a major additional component of general government, such as subnational government (SNG).
1.c	Is there a medium-term fiscal framework (MTFF) to align budget preparation with fiscal policy?	There is no MTFF prepared prior to budget preparation.	There is an MTFF prepared prior to budget preparation but it is limited to fiscal aggregates, such as expenditure, revenue, the deficit, or total borrowing.	There is an MTFF prepared prior to budget preparation, which includes fiscal aggregates and allows distinctions between recurrent and capital spending, and ongoing and new projects.
2. National and Sectoral Planning: Are investment allocation decisions based on sectoral and inter-sectoral strategies?				
2.a.	Does the government prepare national and sectoral strategies for public investment?	National or sectoral public investment strategies or plans are prepared, covering only some projects found in the budget.	National or sectoral public investment strategies or plans are published covering projects funded through the budget.	Both national and sectoral public investment strategies or plans are published and cover all projects funded through the budget regardless of financing source (e.g. donor, public corporation (PC), or PPP financing).

2.b.	Are the government's national and sectoral strategies or plans for public investment costed?	The government's investment strategies or plans include no cost information on planned public investment.	The government's investment strategies include broad estimates of aggregate and sectoral investment plans.	The government's investment strategies include costing of individual, major investment projects within an overall financial constraint.
2.c.	Do sector strategies include measurable targets for the outputs and outcomes of investment projects?	Sector strategies do not include measurable targets for outputs or outcomes.	Sector strategies include measurable targets for outputs (e.g., miles of roads constructed).	Sector strategies include measurable targets for both outputs and outcomes (e.g., reduction in traffic congestion).
3.	**Coordination between Entities: Is there effective coordination of the investment plans of central and other government entities?**			
3.a.	Is capital spending by SNGs, coordinated with the central government?	Capital spending plans of SNGs are not submitted to, nor discussed with central government.	Major SNG capital spending plans are published alongside central government investments, but there are no formal discussions, between the central government and SNGs on investment priorities.	Major SNG capital spending plans are published alongside central government investments, and there are formal discussions between central government and SNGs on investment priorities.
3.b	Does the central government have a transparent, rule-based system for making capital transfers to SNGs, and for providing timely information on such transfers?	The central government does not have a transparent rule-based system for making capital transfers to SNGs.	The central government uses a transparent rule-based system for making capital transfers to SNGs, but SNGs are notified about expected transfers less than six months before the start of each fiscal year.	The central government uses a transparent rule-based system for making capital transfers to SNGs, and expected transfers are made known to SNGs at least six months before the start of each fiscal year.
3.c	Are contingent liabilities arising from capital projects of SNGs, PCs, and PPPs reported to the central government?	Contingent liabilities arising from major projects of SNGs, PCs, and PPPs are not reported to the central government.	Contingent liabilities arising from major projects of SNGs, PCs, and PPPs are reported to the central government, but are generally not presented in the central government's budget documents.	Contingent liabilities arising from major projects of SNGs, PCs, and PPPs are reported to the central government, and are presented in full in the central government's budget documents.

4.	**Project Appraisal: Are project proposals subject to systematic project appraisal?**			
4.a.	Are major capital projects subject to rigorous technical, economic, and financial analysis?	Major capital projects are not systematically subject to rigorous, technical, economic, and financial analysis.	Major projects are systematically subject to rigorous technical, economic, and financial analysis.	Major projects are systematically subject to rigorous technical, economic, and financial analysis, and selected results of this analysis are published or undergo independent external review.
4.b.	Is there a standard methodology and central support for the appraisal of projects?	There is no standard methodology or central support for project appraisal.	There is either a standard methodology or central support for project appraisal.	There is both a standard methodology and central support for project appraisal.
4.c.	Are risks taken into account in conducting project appraisals?	Risks are not systematically assessed as part of the project appraisal.	A risk assessment covering a range of potential risks is included in the project appraisal.	A risk assessment covering a range of potential risks is included in the project appraisal, and plans are prepared to mitigate these risks.
5.	**Alternative Infrastructure Financing: Is there a favorable climate for the private sector, PPPs, and PCs to finance in infrastructure?**			
5.a.	Does the regulatory framework support competition in contestable markets for economic infrastructure (e.g., power, water, telecoms, and transport)?	Provision of economic infrastructure is restricted to domestic monopolies, or there are few established economic regulators.	There is competition in some economic infrastructure markets, and a few economic regulators have been established.	There is competition in major economic infrastructure markets, and economic regulators are independent and well established.
5.b.	Has the government published a strategy/policy for PPPs, and a legal/regulatory framework which guides the preparation, selection, and management of PPP projects?	There is no published strategy/policy framework for PPPs, and the legal/regulatory framework is weak.	A PPP strategy/policy has been published, but the legal/regulatory framework is weak.	A PPP strategy/policy has been published, and there is a strong legal/regulatory framework that guides the preparation, selection, and management of PPP projects.

5.c.	Does the government oversee the investment plans of public corporations (PCs) and monitor their financial performance?	The government does not systematically review the investment plans of PCs.	The government reviews the investment plans of PCs, but does not publish a consolidated report on these plans or the financial performance of PCs.	The government reviews and publishes a consolidated report on the investment plans and financial performance of PCs.
B.	**Ensuring Public Investment is Allocated to the Right Sectors and Projects**			
6.	**Multi-Year Budgeting: Does the government prepare medium-term projections of capital spending on a full cost basis?**			
6.a.	Is capital spending by ministry or sector forecasted over a multiyear horizon?	No projections of capital spending are published beyond the budget year.	Projections of total capital spending are published over a three to five-year horizon.	Projections of capital spending disaggregated by ministry or sector are published over a three to five-year horizon.
6.b	Are there multiyear ceilings on capital expenditure by ministry, sector, or program?	There are no multiyear ceilings on capital expenditure by ministry, sector, or program.	There are indicative multiyear ceilings on capital expenditure by ministry, sector, or program.	There are binding multiyear ceilings on capital expenditure by ministry, sector, or program.
6.c.	Are projections of the total construction cost of major capital projects published?	Projections of the total construction cost of major capital projects are not published.	Projections of the total construction cost of major capital projects are published.	Projections of the total construction cost of major capital projects are published, together with the annual breakdown of these cost over a three-five-year horizon.
7.	**Budget Comprehensiveness and Unity: To what extent is capital spending, and related recurrent spending, undertaken through the budget process?**			
7.a.	Is capital spending mostly undertaken through the budget?	Significant capital spending is undertaken by extra-budgetary entities with no legislative authorization or disclosure in the budget documentation.	Significant capital spending is undertaken by extra-budgetary entities, but with legislative authorization and disclosure in the budget documentation.	Little or no capital spending is undertaken by extra-budgetary entities.
7.b.	Are all capital projects, regardless of financing source, shown in the budget documentation?	Capital projects are not comprehensively presented in the budget documentation, including PPPs, externally financed, and PCs' projects.	Most capital projects are included in the budget documentation, but either PPPs, externally financed, or PCs' projects are not shown.	All capital projects, regardless of financing sources, are included in the budget documentation.

7.c	Are capital and recurrent budgets prepared and presented together in the budget?	Capital and recurrent budgets are prepared by separate ministries, and/or presented in separate budget documents.	Capital and recurrent budgets are prepared by a single ministry and presented together in the budget documents, but without using a program or functional classification.	Capital and recurrent budgets are prepared by a single ministry and presented together in the budget documents, using a program or functional classification.
8. Budgeting for Investment: Are investment projects protected during budget implementation?				
8.a.	Are total project outlays appropriated by the legislature at the time of a project's commencement?	Outlays are appropriated on an annual basis, but information on total project costs is not included in the budget documentation.	Outlays are appropriated on an annual basis, and information on total project costs is included in the budget documentation.	Outlays are appropriated on an annual basis and information on total project costs, and multiyear commitments is included in the budget documentation.
8.b	Are in-year transfers of appropriations (virement) from capital to current spending prevented?	There are no limitations on virement from capital to current spending.	The finance ministry may approve virement from capital to current spending.	Virement from capital to current spending requires the approval of the legislature.
8.c	Is the completion of ongoing projects given priority over starting new projects?	There is no mechanism in place to protect funding of ongoing projects.	There is a mechanism to protect funding for ongoing projects in the annual budget.	There is a mechanism to protect funding for ongoing projects in the annual budget and over the medium term.
9. Maintenance Funding: Are routine maintenance and major improvements receiving adequate funding?				
9.a	Is there a standard methodology for estimating routine maintenance needs and budget funding?	There is no standard methodology for determining the needs for routine maintenance.	There is a standard methodology for determining the needs for routine maintenance and its cost.	There is a standard methodology for determining the needs for routine maintenance and its cost, and the appropriate amounts are generally allocated in the budget.
9.b	Is there a standard methodology for determining major improvements (e.g. renovations, reconstructions, enlargements) to existing assets, and are they included in national and sectoral investment plans?	There is no standard methodology for determining major improvements, and they are not included in national or sectoral plans.	There is a standard methodology for determining major improvements, but they are not included in national or sectoral plans.	There is a standard methodology for determining major improvements, and they are included in national or sectoral plans.

9.c	Can expenditures relating to routine maintenance and major improvements be identified in the budget?	Routine maintenance and major improvements are not systematically identified in the budget.	Routine maintenance and major improvements are systematically identified in the budget.	Routine maintenance and major improvements are systematically identified in the budget, and are reported.
10. Project Selection: Are there institutions and procedures in place to guide project selection?				
10.a	Does the government undertake a central review of major project appraisals before decisions are taken to include projects in the budget?	Major projects (including donor- or PPP-funded) are not reviewed by a central ministry prior to inclusion in the budget.	Major projects (including donor- or PPP-funded) are reviewed by a central ministry prior to inclusion in the budget.	All major projects (including donor- or PPP-funded) are scrutinized by a central ministry, with input from an independent agency or experts prior to inclusion in the budget.
10.b	Does the government publish and adhere to standard criteria, and stipulate a required process for project selection?	There are no published criteria or a required process for project selection.	There are published criteria for project selection, but projects can be selected without going through the required process.	There are published criteria for project selection, and generally projects are selected through the required process.
10.c	Does the government maintain a pipeline of appraised investment projects for inclusion in the annual budget?	The government does not maintain a pipeline of appraised investment projects.	The government maintains a pipeline of appraised investment projects but other projects may be selected for financing through the annual budget.	The government maintains a comprehensive pipeline of appraised investment projects, which is used for selecting projects for inclusion in the annual budget, and over the medium term.
C. Delivering Productive and Durable Public Assets				
11. Procurement				
11.a	Is the procurement process for major capital projects open and transparent?	Few major projects are tendered in a competitive process, and the public has limited access to procurement information.	Many major projects are tendered in a competitive process, but the public has only limited access to procurement information.	Most major projects are tendered in a competitive process, and the public has access to complete, reliable and timely procurement information.
11.b	Is there a system in place to ensure that procurement is monitored adequately?	There is no procurement database, or the information is incomplete or not timely for most phases of the procurement process.	There is a procurement database with reasonably complete information, but no standard analytical reports are produced from the database.	There is a procurement database with reasonably complete information, and standard analytical reports are produced to support a formal monitoring system.

11.c	Are procurement complaints review process conducted in a fair and timely manner?	Procurement complaints are not reviewed by an independent body.	Procurement complaints are reviewed by an independent body, but the recommendations of this body are not produced on a timely basis, nor published, nor rigorously enforced.	Procurement complaints are reviewed by an independent body whose recommendations are timely, published, and rigorously enforced.
12. Availability of Funding: Is financing for capital spending made available in a timely manner?				
12.a	Are ministries/agencies able to plan and commit expenditure on capital projects in advance on the basis of reliable cash-flow forecasts?	Cash-flow forecasts are not prepared or updated regularly, and ministries/agencies are not provided with commitment ceilings in a timely manner.	Cash-flow forecasts are prepared or updated quarterly, and ministries/agencies are provided with commitment ceilings at least a quarter in advance.	Cash-flow forecasts are prepared or updated monthly, and ministries/agencies are provided with commitment ceilings for the full fiscal year.
12.b	Is cash for project outlays released in a timely manner?	The financing of project outlays is frequently subject to cash rationing.	Cash for project outlays is sometimes released with delays.	Cash for project outlays is normally released in a timely manner, based on the appropriation.
12.c	Is external (donor) funding of capital projects fully integrated into the main government bank account structure?	External financing is largely held in commercial bank accounts outside the central bank.	External financing is held at the central bank, but is not part of the main government bank account structure.	External financing is fully integrated into the main government bank account structure.
13. Portfolio Management and Oversight: Is adequate oversight exercised over implementation of the entire public investment portfolio				
13.a	Are major capital projects subject to monitoring during project implementation?	Most major capital projects are not monitored during project implementation.	For most major projects, annual project costs, as well as physical progress, are monitored during project implementation.	For all major projects, total project costs, as well as physical progress, are centrally monitored during project implementation.
13.b	Can funds be re-allocated between investment projects during implementation?	Funds cannot be re-allocated between projects during implementation.	Funds can be reallocated between projects during implementation, but not using systematic monitoring and transparent procedures.	Funds can be re-allocated between projects during implementation, using systematic monitoring and transparent procedures.

13.c	Does the government adjust project implementation policies and procedures by systematically conducting ex post reviews of projects that have completed their construction phase?	Ex post reviews of major projects are neither systematically required, nor frequently conducted.	Ex post reviews of major projects, focusing on project costs, deliverables and outputs, are sometimes conducted.	Ex post reviews of major projects focusing on project costs, deliverables, and outputs are conducted regularly by an independent entity or experts, and are used to adjust project implementation policies and procedures.
14. Management of Project Implementation: Are capital projects well managed and controlled during the execution stage?				
14.a.	Do ministries/agencies have effective project management arrangements in place?	Ministries/agencies do not systematically identify senior responsible officers for major investment projects, and implementation plans are not prepared prior to budget approval.	Ministries/agencies systematically identify senior responsible officers for major investment projects, but implementation plans are not prepared prior to budget approval.	Ministries/agencies systematically identify senior responsible officers for major investment projects, and implementation plans are prepared prior to budget approval.
14.b.	Has the government issued rules, procedures and guidelines for project adjustments that are applied systematically across all major projects?	There are no standardized rules and procedures for project adjustments.	For major projects, there are standardized rules and procedures for project adjustments, but do not include, if required, a fundamental review and reappraisal of a project's rationale, costs, and expected outputs.	For all projects, there are standardized rules and procedures for project adjustments and, if required, include a fundamental review of the project's rationale, costs, and expected outputs.
14.c	Are ex post audits of capital projects routinely undertaken?	Major capital projects are usually not subject to ex post external audits.	Some major capital projects are subject to ex post external audit, information on which is published by the external auditor.	Most major capital projects are subject to ex post external audit information on which is regularly published and scrutinized by the legislature.
15. Monitoring of Public Assets: Is the value of assets properly accounted for and reported in financial statements?				

15.a	Are asset registers updated by surveys of the stocks, values, and conditions of public assets regularly?	Asset registers are neither comprehensive nor updated regularly.	Asset registers are either comprehensive or updated regularly at reasonable intervals.	Asset registers are comprehensive and updated regularly at reasonable intervals.
15.b	Are nonfinancial asset values recorded in the government financial accounts?	Government financial accounts do not include the value of non-financial assets.	Government financial accounts include the value of some non-financial assets, which are revalued irregularly.	Government financial accounts include the value of most nonfinancial assets, which are revalued regularly.
15.c	Is the depreciation of fixed assets captured in the government's operating statements?	The depreciation of fixed assets is not recorded in operating statements.	The depreciation of fixed assets is recorded in operating statements, based on statistical estimates.	The depreciation of fixed assets is recorded in operating expenditures, based on asset-specific assumptions.
Cross-cutting issues				
A	**IT support.** Is there a comprehensive computerized information system for public investment projects to support decision making and monitoring?			
B	**Legal Framework.** Is there a legal and regulatory framework that supports institutional arrangements, mandates, coverage, procedures, standards and accountability for effective PIM?			
C	**Staff capacity.** Does staff capacity (number of staff and/or their knowledge, skills, and experience) and clarity of roles and responsibilities support effective PIM institutions?			

Annex II. PIMA Detailed Scores for Mexico

The following color coding is used in presenting the scores.

Score	1	2	3
Color	Low	Medium	High

A. Planning		
	Institutional Strength	Effectiveness
1.a	Low	Medium
1.b	High	Medium
1.c	Medium	Medium
2.a	Medium	Medium
2.b	Medium	Low
2.c	Medium	Low
3.a	Low	Low
3.b	Medium	Low
3.c	Low	Low
4.a	High	High
4.b	High	High
4.c	Medium	High
5.a	Medium	Medium
5.b	High	Medium
5.c	Low	Low

B. Allocation		
	Institutional Strength	Effectiveness
6.a	Low	Low
6.b	Low	Low
6.c	High	Medium
7.a	Medium	Medium
7.b	Medium	Medium
7.c	Medium	Medium
8.a	Medium	Medium
8.b	Medium	Medium
8.c	Medium	Medium
9.a	Low	Medium
9.b	Low	Low
9.c	Medium	Medium
10.a	Medium	Medium
10.b	High	High
10.c	High	Medium

C. Implementation		
	Institutional Strength	Effectiveness
11.a	High	Medium
11.b	Medium	Low
11.c	High	High
12.a	Medium	Medium
12.b	Medium	Medium
12.c	High	High
13.a	High	Medium
13.b	Medium	Medium
13.c	Medium	Medium
14.a	Medium	Medium
14.b	High	Medium
14.c	Medium	Medium
15.a	Medium	Low
15.b	Medium	Medium
15.c	Low	Low

Annex III. Cross Cutting Issues

IT Support

Public Investment Management (PIM) processes use computerized information systems that allow for information to be shared across different units from planning to budgeting to procurement and follow-up activities. The integration of individual information systems is gradually moving ahead. In the meanwhile, crossing information from different systems is a costly activity. The general public has access to a large volume of information, although not necessarily presented in ways that facilitate comprehension and interpretation. Regarding public procurement, the electronic portal (CompraNet) provides the technical support for mandatory registration and disclosure of public contracts (although its use for procurement is not mandatory). A major area where improvements would add significant value is the automated production of analytical information, on budgeting, financial reporting, and procurement.

Legal Framework

Recent wide changes in the legislation and regulations, promoting competition, innovation, and transparency, are currently being implemented. In recent years, a major legal reform[1] (including amendments to the Constitution) addressed a diversity of areas, some of which have a direct impact on the Public Investment Management framework, such as the infrastructure regulatory reforms and the new framework for PPPs and private investment in infrastructure. Also relevant is the General Transparency Law and the legislation on Open Data. Mexico has undertaken a legislative transformation of the entitlements of each government authority[2] and initiated cooperation agreements with subnational entities.

The legal and regulatory reforms, some of which are still being implemented, have in general reinforced the effectiveness and transparency of Public Investment Management processes, and promoted competition and transparency. The legislation on procurement provided benefits such as the integration of different laws into a comprehensive Public Procurement Law[3] and the elimination of loopholes (for instance, the diversity of legal opportunities to avoid competitive tender). The pro-competitive application of current legislation is paramount, more than any

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[1] The OECD, in its 2017 report *Towards a stronger and more inclusive Mexico: An assessment of recent policy reforms*, describes the recent legal and regulatory reforms in Mexico as "the most ambitious reform package of any OECD country in recent times."

[2] For implementation of this multi-level framework, federal agreements were signed with 32 state governments and the 169 municipalities that include the 90 largest cities. The "Agreements of Coordination Framework," among other goals, aim at fostering cooperation on investment plans and projects.

[3] Currently, public procurement is regulated by the public procurement law, the public works law, the PPP law, and a diversity of sectoral legislation, e.g. the law for energy, the law for hydrocarbons, and specific laws for PEMEX and CFE.

lengthy improvement to the legal framework. Considering the federal character of Mexico, the diversity of subnational legal frameworks and their heterogeneity, the homogenization of the national legislation on procurement would create legal clarity, improve legislation, and attract domestic and foreign investment.[4]

Staff Capacity

The efforts, in recent years, to control the growth of personnel expenditure, may have affected the sizing of some PIM units, but most relevant is current staffing and retaining capacity. In SHCP departments, staff demonstrate ability to understand the issues and an active involvement in developing new systems for improving the effectiveness of PIM processes, transparency and accountability. The major concern here relates to the need for retaining capacity, maintaining and reinforcing career attractiveness. On the downstream side of PIM, public procurement, corruption concerns and the lack of a pro-competition approach suggest that procurement officials should engage in a comprehensive training program addressing not only procurement principles and practices but also integrity standards for procurement.[5] Staff capacity varies widely with spending ministries with some having much more experience with PIM institutions and process than others. Capacity of staff at the state and especially at municipality level is generally much weaker.

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[4] COFECE had even suggested the amendment of Article 73 of the Constitution in order to create a General Law on Public Procurement establishing the principles and main procedures to be obeyed at every level of government in Mexico. (See COFECE, 2018, *Agenda de competencia para un ejercicio íntegro en las contrataciones públicas*)

[5] OECD, in its cooperation with Mexican authorities, has been promoting its 2015 recommendations on public procurement, addressing procurement officials' professional standards, certification, regular training, and the provision of attractive, competitive, and merit-based career options for procurement officials. (See OECD (2015) *Recommendation of the Council on Public Procurement*, www.oecd.org/corruption/recommendation-on-public-procurement.htm)

Annex IV. Source of Funding for Public Investment in the States of Mexico

The States in Mexico have three important sources of funding for public expenditure and for the development of public investment: State, Federal and Internal Financing.

1. State Fiscal Resources

State fiscal resources are those that are generated in each state. These resources are generated as a result of: a) direct state taxes (e.g. income taxes, raffles, lotteries, public shows, possession or use of vehicles, lodging services, purchase of used vehicles, staff payroll); b) rights (use, enjoyment and exploitation of public goods such as cultural spaces), provision of services (registration of public property, transit, health, etc.); c) products generated by sale of goods and financial products; d) incentive benefits derived from tax collaboration (tax on new vehicles, inspection, etc.); and e) social security contributions.

In this fiscal category of own incomes, Ramo 28 "Participaciones Federales a Entidades Federativas y Municipios" (*Participaciones*) is also included. *Participaciones* are unconditional revenue-sharing transfers. The *Participaciones* are part of the fiscal coordination agreement between the subnational and the federal governments, which is established in the Fiscal Coordination Law, and it is based on GDP and State's own collection effort criteria. *Ramo* 28 is state-own revenue source and has no restrictions on use.

These funds are distributed mainly through the following funds:

- General Fund for *Participaciones*;
- Municipal Development Fund:
- Special Tax on Production and Services;
- Fiscalization Fund;
- Compensation Fund;
- Hydrocarbons Extraction Fund; and
- New Automobile Tax Compensation Fund.

All state fiscal resources are considered own-incomes and may be used freely. These resources are mainly used to fund recurrent expenses and, to a lesser extent, public investment. In the case of public investment, if it is funded through state resources, the processes and procedures for the evaluation and execution of investment projects are in accordance with the norms and guidelines established at the State level.

2. Federal Resources

They are fiscal resources as subsidies, budget allocations and funds derived from the Federal Income Law or from the Federal Expenditure Budget, which are transferred to State or Municipal Governments. These resources are grouped into three: (a) *Ramo* 33 (*Aportaciones*), (b) *Ramo* 23 (ad hoc federal transfers) and (c) Agreements (federal allocations based on agreements with federal line-agencies and departments).

a) *Ramo* 33 (*Aportaciones*)

***Ramo* 33 "Federal Contributions to Federative Entities and Municipalities" (*Aportaciones*) is the most important component of federal resources that States receive to fund government actions.** These are earmarked resources that are distributed in the areas of education, health, educational and social infrastructure, and public security, based on formulas, indicators/criteria and timetables established in the Fiscal Coordination Law. The total amount of resources to be transfer to the States is defined with the approval of the federal budget, which occurs at the end of the calendar year prior to the year of its execution.

In order to fulfill its purpose, *Ramo* 33 is structured through the following funds:

- Earmarked Transfer Fund for the Education Payroll and Operating Expenses (Fondo de Aportaciones para la Nómina Educativa y Gasto Operativo – FONE);
- Earmarked Transfer Fund for Health Services (Fondo de Aportaciones para los Servicios de Salud – FASSA);
- Earmarked Transfer Fund for Social Infrastructure (Fondo de Aportaciones para la Infraestructura Social – FAIS):
  - State Social Infrastructure Fund (Fondo Infraestructura Social Estatal – FISE)
  - Municipal Social Infrastructure Fund (Fondo Infraestructura Social Municipal – FISM);
- Earmarked Transfer Fund for Multiple type of Contributions (Fondo de Aportaciones Múltiples – FAM);
- Earmarked Transfer Fund for Strengthening Federative Entities (Fondo de Aportaciones para el Fortalecimiento de las Entidades Federativas – FAFEF);
- Earmarked Transfer Fund for the Strengthening of the Municipalities and Territorial Demarcations of the Federal District (Fondo de Aportaciones para el Fortalecimiento de los Municipios y de las Demarcaciones Territoriales del Distrito Federal);
- Earmarked Transfer Fund for Technological and Adult Education (Fondo de Aportaciones para la Educación Tecnológica y de Adultos – FAETA);
- Earmarked Transfer Fund for Public Security of the States and the Federal District (Fondo de Aportaciones para la Seguridad Pública de los Estados y del Distrito Federal – FASP).

Although these earmarked funds are mostly used to finance current expenditure, it is also an important funding source for public investment, which is mainly financed through FAIS, FAFEF and FAM. The public investment projects funded through Ramo 33 are carried out according to the State's public investment process and allows for a certain degree of planning along the budget cycle.

b) *Ramo* 23 "Salary and Economic Forecasts"

***Ramo* 23 represents the most important source of federal government funding to subnational governments in Mexico for public investment.** It is a flexible, ad hoc source of resources, administered by the SHCP. The SHCP is responsible to define the purpose of it and controls its execution. *Ramo* 23 supports both contingency and public investment programs. It is considered a source of extrabudgetary funds for the federation since its use is not fully defined in the expenditure budget approved by the congress. Final definitions and decisions about the allocations of this funding are being done during the fiscal year.

***Ramo* 23 also has many funds that may or may not have continuity and may or may not transfer from one government administration to the other.** Therefore, each government administration defines the focus of this *Ramo*. Its structured is defined yearly. Thus, the rules of operation of the *Ramo* and funds are published annually. The main funds of this *Ramo* in 2017 were:

- Fund for Financial Strengthening
- Regional Programs
- Regional Development Projects
- Metropolitan Fund
- Regional Fund
- Fund for the Strengthening of the State and Municipal Infrastructure
- Border Fund
- Implementation of the Criminal Justice System
- Infrastructure and Productivity Support Fund
- Guerrero Fund

The main funds that support general public investment at the subnational level are: Regional Development Projects (Proyectos de Desarrollo Regional, PDR), Metropolitan Fund, Regional Fund and Fund for the Strengthening of State and Municipal Infrastructure. The protocol for accessing the resources of each of these funds for public investment projects is different. None of these funds follows the guidelines of the SHCP IU for the approval of the investment projects and allocation of the respective resources. Investment projects under these funds are defined along the fiscal year. The approval process occurs in the actual fiscal year. For purposes of approval, projects must be registered in the Investment Funds Evaluation System of Ramo 23 (Sistema de Evaluación de Fondos de Inversión del Ramo 23 – SEFIR). SEFIR is a different system from the "Investment Portfolio Module" of the System for the Integral Process for

Programming and Budgeting (Proceso Integral de Programación y Presupuesto – PIPP) and the process and guidelines for the approval of these projects are also different. The evaluation is done in the Policy and Budget Control Unit (Unidad de Política y Control Presupuestal – UPCP) of SHCP and not in IU. The evaluation guidelines are not standardized, and each fund may have different criteria and levels of rigor for the approval of the projects (mostly index cards or technical notes), so the process and results of the evaluation may have greater degrees of uncertainty for the States.

The degree of formalization of the approval of the investment projects and the methodology for the transfer of resources also varies depending on the fund. Transfers can be made based on project´s calendar or based on execution criteria. The formalization of the approval of the project also changes according to the fund. In the case of Regional Development Projects, which includes projects prioritized by legislators, agreements are usually signed to ensure their development and confirm their financing.

The funds of *Ramo* 23 are those that provide the greatest margin to the states for financing public investment, but they are also the least structured, with the least amount of control over their execution, and generate an important degree of unpredictability for state budgets. In addition to this, there is a significant uncertainty for SNGs on the amount of funding they will finally receive to complete their short or long-term projects, and what funding, if any, they will have to cover operational costs once the projects are completed. Considering the importance of this source of funding for SNGs' public investment, these issues generate serious challenges for the budget management and performance of public investment at a state level.

c) Agreements

The state governments also have a financing mechanism for their investment projects through Agreements (*Convenios*).[1] Agreements are established between the state government and the federal government for the execution of a specific investment project. An Agreement formalizes the funding that the federal government, through the budget of a federal Agency, will grant to the state government for the development of a specific investment project that is in the interest of a corresponding State government.

The investment projects of the state governments that are funded through Agreements follow the same procedure of approval and registration in the public investment portfolio as the projects of the federal agencies. The state government must conduct the formulation and evaluation of the project and process its registration. Once this project has being registered in the federal public investment portfolio, the agreement may be signed, and the full resources required by the project for its execution in the respective year may be transferred to the state government.

[1] Convenios are matching transfers and can be used to co-finance specific spending.

The investment projects of the state governments that are financed through Agreements are entered into the budget process of the Federal government (as part of its investment portfolio, which was previously reviewed and prioritized in conjunction with the IU) and therefore these projects are approved by Congress. The execution of the Agreements start with the beginning of the fiscal year for which they were approved.

3. Internal Financing

Internal financing are resources from obligations contracted with national creditors (issuance of bills and bonds, and credits of banks and private financial system) and payable in national currency. By law, States cannot access external financing and resources coming from this type of obligations must be earmarked for public investment.