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R2020-0011/1

January 17, 2020

**Closing Date: Thursday, February 6, 2020  
at 6:00 p.m.**

FROM: Vice President and Corporate Secretary

**Mexico - Modernization of Public Financial Management Systems in Mexico  
Project**

**Project Appraisal Document**

Attached is the Project Appraisal Document regarding a proposed loan to Mexico for the Modernization of Public Financial Management Systems in Mexico Project (R2020-0011), which is being processed on an absence-of-objection basis.

Distribution:

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Report No: PAD3465

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED LOAN

IN THE AMOUNT OF US\$110 MILLION

TO THE

UNITED MEXICAN STATES

FOR A

MODERNIZATION OF PUBLIC FINANCIAL MANAGEMENT SYSTEMS IN MEXICO  
PROJECT

JANUARY 9, 2020

Governance Global Practice  
Latin America And Caribbean Region

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## CURRENCY EQUIVALENTS

(Exchange Rate Effective Jan 7, 2020)

Currency Unit = Mexican pesos (MXN)

MXN 18.8365 = US\$1

## FISCAL YEAR

January 1 - December 31

Regional Vice President: Humberto Lopez (Acting)

Country Director: Pablo Saavedra

Regional Director: Robert Taliercio

Practice Manager: Adrian Fozzard

Task Team Leader(s): Henry Forero, Alberto Leyton

## ABBREVIATIONS AND ACRONYMS

CONAC	National Council for the Harmonization of Accounting ( <i>Consejo Nacional de Armonización Contable</i> )
CPF	Country Partnership Framework
DGTSI	General Directorate of Technology and Information Security
ESCP	Environmental and Social Commitment Plan
ESS	Environment and Social Standards
GFSM	Government Finance Statistics Manual
GoM	Government of Mexico
GRM	Grievance Redress Mechanism
GRS	Grievance Redress Service
ICT	Information and Communications Technology
IFMIS	Integrated Financial Management Information System
IMF	International Monetary Fund
IRR	Internal Rate of Return
ISR	Implementation Status and Results
MAP	Budget Modification Module ( <i>Módulo de Adecuaciones Presupuestarias</i> )
NAFIN	National Financial ( <i>Nacional Financiera, S.N.C., I.B.D</i> )
NPV	Net Present Value
OM	Operational Manual
PAU	Project Administration Unit
PDO	Project Development Objective
PFM	Public Financial Management
PPSD	Procurement Strategy for Development
RAS	Reimbursable Advisory Services
SCG	Accounting System ( <i>Sistema de Contabilidad Gubernamental</i> )
SCI	Public Investment Portfolio System ( <i>Sistema de Cartera de Inversión Pública</i> )
SFP	Ministry of Public Administration ( <i>Secretaría de Función Pública</i> )
SHCP	Ministry of Finance and Public Credit ( <i>Secretaría de Hacienda y Crédito Público</i> )
SIAFF	Integrated Federal Financial Administration System ( <i>Sistema Integral de Administración Financiera Federal</i> )
SICOP	Accounting and Budgeting System ( <i>Sistema de Contabilidad y Presupuesto</i> )
STEP	Systematic Tracking of Exchanges in Procurement
SNA	National Anti-Corruption System
SNT	National Transparency System
TAL	Technical Assistant Loan
TESOFE	Federal Treasury
TFP	Total factor productivity
TOC	Transversal Operating Committee
UAF	Administrative and Financial Unit ( <i>Unidad de Administración y Finanzas</i> )
UCG	Government Accounting Unit
UI	Investment Unit
UPCP	Budget Policy and Control Unit



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## DATASHEET

**BASIC INFORMATION**

Country(ies)	Project Name	
Mexico	Modernization of Public Financial Management Systems in Mexico	
Project ID	Financing Instrument	Environmental and Social Risk Classification
P169959	Investment Project Financing	Low

**Financing & Implementation Modalities**

<input type="checkbox"/> Multiphase Programmatic Approach (MPA)	<input type="checkbox"/> Contingent Emergency Response Component (CERC)
<input type="checkbox"/> Series of Projects (SOP)	<input type="checkbox"/> Fragile State(s)
<input type="checkbox"/> Disbursement-linked Indicators (DLIs)	<input type="checkbox"/> Small State(s)
<input type="checkbox"/> Financial Intermediaries (FI)	<input type="checkbox"/> Fragile within a non-fragile Country
<input type="checkbox"/> Project-Based Guarantee	<input type="checkbox"/> Conflict
<input type="checkbox"/> Deferred Drawdown	<input type="checkbox"/> Responding to Natural or Man-made Disaster
<input type="checkbox"/> Alternate Procurement Arrangements (APA)	

Expected Approval Date	Expected Closing Date
06-Feb-2020	30-Apr-2025

Bank/IFC Collaboration

No

**Proposed Development Objective(s)**

To improve the coverage and timeliness of public financial information and its use by the Federal Public Administration.

**Components**

Component Name	Cost (US\$, millions)
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Strengthening Core Public Financial Management Systems	36.00
Designing and Implementing Resource Management Systems	23.00
Enhancing the Use and Transparency of Public Financial Management Information	10.00
Strengthening ICT and Capacity Building for SHCP	41.00

**Organizations**

Borrower:	United Mexican States
Implementing Agency:	Ministry of Finance and Public Credit (SHCP)

**PROJECT FINANCING DATA (US\$, Millions)****SUMMARY**

Total Project Cost	110.00
Total Financing	110.00
of which IBRD/IDA	110.00
Financing Gap	0.00

**DETAILS****World Bank Group Financing**

International Bank for Reconstruction and Development (IBRD)	110.00
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**Expected Disbursements (in US\$, Millions)**

WB Fiscal Year	2020	2021	2022	2023	2024	2025
Annual	0.00	7.47	33.79	35.89	24.96	7.90
Cumulative	0.00	7.47	41.26	77.14	102.10	110.00

**INSTITUTIONAL DATA**

Practice Area (Lead)	Contributing Practice Areas
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## Governance

### Climate Change and Disaster Screening

This operation has been screened for short and long-term climate change and disaster risks

### SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	● Moderate
2. Macroeconomic	● Moderate
3. Sector Strategies and Policies	● Moderate
4. Technical Design of Project or Program	● Substantial
5. Institutional Capacity for Implementation and Sustainability	● Moderate
6. Fiduciary	● Moderate
7. Environment and Social	● Low
8. Stakeholders	● Moderate
9. Other	
10. Overall	● Moderate

### COMPLIANCE

#### Policy

Does the project depart from the CPF in content or in other significant respects?

☐ Yes ☒ No

Does the project require any waivers of Bank policies?

☐ Yes ☒ No

**Environmental and Social Standards Relevance Given its Context at the Time of Appraisal**

E & S Standards	Relevance
Assessment and Management of Environmental and Social Risks and Impacts	Relevant
Stakeholder Engagement and Information Disclosure	Relevant
Labor and Working Conditions	Relevant
Resource Efficiency and Pollution Prevention and Management	Relevant
Community Health and Safety	Not Currently Relevant
Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Not Currently Relevant
Biodiversity Conservation and Sustainable Management of Living Natural Resources	Not Currently Relevant
Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Not Currently Relevant
Cultural Heritage	Not Currently Relevant
Financial Intermediaries	Not Currently Relevant

**NOTE:** For further information regarding the World Bank's due diligence assessment of the Project's potential environmental and social risks and impacts, please refer to the Project's Appraisal Environmental and Social Review Summary (ESRS).

**Legal Covenants****Sections and Description**

The Borrower, through SHCP, shall no later than 30 days after the Effective Date, establish and thereafter operate and maintain at all times during Project implementation a Project Administration Unit (PAU) with resources, staffing, and functions all acceptable to the Bank as set forth in the Operational Manual. (Schedule 2, Section I.A.1(a))

**Sections and Description**

The Borrower, through SHCP, shall operate and maintain at all times during Project implementation a steering committee (Steering Committee) with composition and functions acceptable to the Bank as set forth in the Operational Manual. (Schedule 2, Section I.A.1(b))

**Sections and Description**



The Borrower, through SHCP, shall no later than 30 days after the Effective Date, establish and thereafter operate and maintain a Transversal Operating Committee (TOC) with composition and functions acceptable to the Bank as set forth in the Operational Manual. (Schedule 2, Section I.A.1(c))

#### Conditions

Type Effectiveness	Description The Contrato de Mandato has been duly executed by the parties thereto. (Article V. 5.01(a))
Type Effectiveness	Description The Operational Manual has been adopted in a manner and with contents acceptable to the Bank. (Article V. 5.01(b))



## I. STRATEGIC CONTEXT

1. **The current Mexican administration has launched an ambitious modernization program to align to its public financial management practices and systems with international best practice.** After nearly two decades of public financial management (PFM) reforms, Mexico still faces significant challenges in the coverage, timeliness and quality of public financial information. These shortcomings result, in large part, from the fragmentation of information systems across the Federal administration. Improvements in financial information are needed to align resources with the Government's policy agenda for inclusive growth and fulfill commitments to deliver public services and public infrastructure sustainably, transparently, efficiently, and equitably. Whole-of-government PFM reforms are technically challenging, particularly so when these require the integration of multiple information systems. The Government of Mexico (GoM) has turned to the World Bank to support its PFM reforms so that it can draw on the Bank's global experience gained through the implementation of integrated PFM solutions across 145 projects in 81 countries.

### A. Country Context

2. **Mexico is an upper-middle income country with a diversified economy, but moderate economic growth has limited poverty reduction and income convergence.** Growth averaged about 2 percent between 1980 and 2018, or close to 1 percent on a per capita basis. Today Mexico's per capita gross domestic product (GDP) stands at 34 percent of the U.S.A.'s per capita GDP, compared with 49 percent back in 1980. On average, over the last 25 years, total factor productivity (TFP) growth has been negative. The official multidimensional poverty rate fell from 44.4 percent of the population in 2016 to 41.9 percent in 2018, while the share of the population living below the monetary poverty line in 2018 was 48.8 percent, close to the level observed in 2008. Moreover, regional inequality is high. After a decline in 2010–14, the annualized growth rate of median per capita income was 1.8 percent in 2016–18, well below the average in the Latin America and the Caribbean (LAC) region.
3. **Improving public sector institutions is a critical challenge.** Dealing with institutional shortcomings requires a long-term strategy involving targeted and multiple reforms and interventions across policies, sectors, agencies, programs, and even projects. To meet the aspirations for inclusive growth, the authorities are committed to improving the government's ability to deliver public services and public infrastructure sustainably, transparently, efficiently, and equitably. Public finance management is an important element of the institutional strengthening in Mexico. Better integration and functional responsibilities, controls, timely-information to more efficiently allocate and save resources, and overall more effective public finance management processes would help safeguard public resources and enable more transparency.
4. **The deceleration in economic activity underway since Q2 2018 continued in 2019, but Mexico maintains a prudent macroeconomic policy framework.** On the demand side, despite real wage growth and strong remittance inflows in 2019, private consumption growth dipped to its slowest pace in the last years. Dragged by wage and other recurrent spending cuts in public administration, government consumption also slowed significantly over the first half of 2019. A degree of uncertainty around the trajectory of some of the new administration's sectoral policies, slowed investment further, which had been weak since 2016. In this context, inflation pressures continue to subside even with the significant minimum wage increase enacted at the beginning of the year. The policy rate has helped the local currency to hover below 20 pesos per dollar, as Mexico remains attractive to portfolio investors, but with less positive effects for fixed capital formation. Fiscal consolidation enabled the achievement of public debt stabilization. Mexico led emerging markets in stabilizing and then reducing public debt as a share of GDP, which stood at 53.6 percent in



2018 for gross public-sector debt (44.9 percent on a net basis as reported by the government). Expenditure rationalization measures together with the use of its revenue stabilization fund enabled the authorities to compensate for lower than expected revenue collection during 2019. Adherence to fiscal prudence is expected to continue as the administration presented its 2020 budget with a primary surplus and an overall fiscal deficit in line with the objective of stabilizing the public debt-to-GDP ratio. The budget emphasizes categorical social programs (minimum pension, student grants and stipends for youth) and a moderate public investment increase, which are financed by program consolidation and cuts in public wages, goods and services, and discretionary transfers to states.

## B. Sectoral and Institutional Context

5. **Strengthening public sector institutions is a critical challenge for Mexico.** Dealing with institutional shortcomings requires a long-term strategy involving targeted and multiple reforms across policies, sectors, agencies, programs, and projects. To meet the aspirations for inclusive growth, the authorities are committed to improving the government's ability to deliver public services and public infrastructure sustainably, transparently, efficiently, and equitably. Public financial management is an important element of the institutional strengthening in Mexico. Better integration of functional responsibilities, strengthened controls, the generation of timely-information and overall more effective public finance management processes will help safeguard public resources, improve transparency and improve efficiency in the allocation and application of public resources.
6. **Over the last two decades Mexico, has made important strides in strengthening public financial management systems.** Mexico launched its Integrated System for Financial Administration (SIAFF) in the late 1990s. SIAFF still supports core budgetary and treasury functions for the Central Sector of Federal Ministries. The Federal Budget and Fiscal Responsibility Law of 2006 and General Law of Government Accounting of 2008 provided a framework for accounting harmonization and a transition to accrual accounting. Constitutional reforms in transparency and accountability in 2014 and 2015 led to the creation of a National Transparency System (SNT) in 2014 and a National Anti-Corruption System (SNA) in 2015. The Transparency Law mandates the disclosure of all official documents produced by the government. Notwithstanding significant progress to date, Mexico's PFM system still faces challenges in the policy alignment, coverage, timeliness and quality of public financial information which hinder effective financial management.
7. **The budget process is robust, but further work is needed to integrate a medium-term, strategic perspective in financial management.** Budget is formulated by spending ministries based on the legal framework issued by SHCP and the Government's strategic priorities which are reflected in the National Development Plan. A performance information system has been established at federal level. SHCP prepares forecasts of fiscal aggregates on a five-year rolling annual basis through a Medium-Term Fiscal Framework (MTFF) and budget documents include projections of expenditures at an aggregate level. However, forecasts are unreliable and not subject to independent review. They do not encompass long-term medium-to-long risks such as climate change (see Box 1). Furthermore, agencies are not engaged in the medium-term budgeting exercise and projections are not used as the basis for agency level planning. The Performance Evaluation System (SED) was established to inform government decision-making, encouraging agencies to align resources with their objectives. SED has been institutionalized throughout the Federal administration. While performance information is available, further work is needed to ensure that performance information and analysis of the effectiveness of spending is used for planning purposes.
8. **Significant progress has been made in the harmonization of budget classifications and accounting standards across Federal, State and Municipal levels of government but these are only partially aligned with international**



**standards.** The budget classification includes administrative, economic, functional and program classification but economic and functional classification do not comply entirely with Government Finance Statistics Manual (GFSM) standards and SHCP has developed bridge tables to produce reports consistent with GFSM standards. The National Council for the Harmonization of Accounting (CONAC) established in 2008 has played a leading role in the development of budget and accounting standards, which are now shared by the federal state, and local levels of government. In principle accrual concepts have been adopted for public sector accounting in Mexico: the General Law of Government Accounting stipulates that, starting on 2012, the Government must prepare consolidated financial statements on an accrual basis and Subnational Governments from 2013. The transition to accrual accounting has been slower than planned and the path is still uncertain. CONAC's Government Accounting Conceptual Framework establishes that the national regulations take precedence over international standards, though national standards are incomplete. Information systems continue to apply modified cash principles. This is of material consequence. The IMF's 2018 Fiscal Transparency Evaluation<sup>1</sup> argues that cash-to accrual and coverage adjustments would increase the Mexican public sector deficit by 3.5 percent of GDP in 2016 largely because of significant under-registration or delayed registration of payment obligations.

9. **Fiscal reports cover only entities included in the Federal budget thereby excluding a significant part of the public sector.** SHCP issues monthly and quarterly financial reports which contain detailed information on revenue and expenditure budget execution, as well as public debt. These reports are made public through the SHCP's internet website. Annual public accounts prepared by SHCP are submitted to the Legislature within four months after the end of each fiscal year. There are 119 Extra Budgetary entities at the Federal level for which summary information on the revenues, spending and financing is included in the budget documents. These account for 6 percent of the Federal budget. More than 246 federal trust funds, some of them with "organic structure"<sup>2</sup> make transactions largely outside the budget. There is no consistent framework for reporting by state-owned enterprises. Fiscal reports in Mexico are compiled and disseminated and regularly published online by SHCP. SHCP launched the Budget Transparency Portal in 2011.
10. **Significant progress has been made in strengthening financial information systems, but systems for key functions are fragmented, limiting the coverage of financial information and the effectiveness of controls.** The SIAFF was developed internally by SHCP to support core treasury functions. The Accounting and Budget System (SICOP) was developed to support accounting reforms and integrate the budgeting and accounting functions through linkages to SIAFF. Additionally, Government has put in place a public procurement system (Compranet). These systems allow recording of financial transactions, including payments, budget and accounting information. However, information on debt, revenues, and some treasury functions are still managed through different systems. Systems have been designed following a function-by-function approach, focused on budgetary expenditures, rather than with a view to achieving process integration. Consequently, the systems do not ensure consistency across information sources. Management processes are isolated, limiting effective control over all stages of the expenditure cycle such as setting ceilings, estimation of budget availability and arrears. Fragmentation hinders timely consolidation of financial information and effective control.
11. **The resource management systems used by Federal budget entities are poorly articulated with core PFM systems.** The Federal administration had not developed shared information systems to support budget entities' financial and

<sup>1</sup> Pattanayak, Sailendra, Eliko Pedastar, Alpa Shah, Concha Verdugo, Richard Allen, Felipe Bardella, and Rolando Ossowski. *Mexico Fiscal Transparency Evaluation*. IMF: Washington, DC, 2018.

<sup>2</sup> Trust funds with an "organic" structure have staff and administrative budget; "non-organic" funds comprise essentially a set of accounts within a government ministry or entity which processes transactions but has no separate corporate identity.



administrative functions such as goods, asset, human resource and payroll management. This has led to the proliferation of systems and administrative solutions, including sophisticated off-the-shelf resource planning solutions, in the various Ministries and their corresponding budget implementing units. SICOP has facilitated information flows between agencies and SHCP through data interface mechanisms which help consolidate information at the central level. However, inter-operability with SICOP remains a challenge. Most budget units use manual or semi-manual procedures to migrate data from individual transactions to SICOP for reporting purposes.

#### Box 1: Mexico's PFM Reforms and Climate Change

Mexico is particularly vulnerable to observed and anticipated impacts of global climate change. According to the Special Climate Change Program (PECC 2014-2018), 319 municipalities - 13 percent of all municipalities - have significant vulnerability to impacts of climate change. Climate related impacts include increases in temperatures and temperature extremes, sea level rise affecting coastal areas, intensification of hurricanes, and changes in water precipitation cycles.

Mexico has made ambitious commitments to tackle climate change through its National Strategy on Climate Change. A commitment to transition to net-zero carbon emissions by 2050 is currently under discussion. The 2012 Climate Change Law put in place an institutional framework for climate change, including a requirement for the SHCP to review budget proposals from a perspective of climate change. Subsequently, in April 2019 Mexico became signatory to the Helsinki Principles as a founding member of the Coalition of Finance Ministers for Climate Action. Under this initiative, Mexico is committed to integrate climate change into its macro-fiscal planning, budgetary, public investment and public procurement practices.

The climate change activities under the proposed project focus on the integration of climate change considerations in the public investment and expenditure management cycles through the adoption of screening and appraisal methodologies. This potentially includes the development of tools for: (i) assessment of fiscal risks arising from short and long-term physical climate change impacts and from the transition to a low to net zero economy; (ii) budgeting and reporting on public expenditures with adaptation, mitigation and adverse climate impacts; earmarking resources through the Climate Change Fund; (iii) assessing and evaluating the policy alignment fiscal policy and expenditures with climate change objectives, using spending reviews, expenditure reviews and program evaluations; (iv) project screening, appraisal and evaluation to address physical and transition risks; (v) establishing guidelines that integrate energy efficiency and GHG emissions in investment appraisal, including the use of shadow price of carbon; and (vi) establishing disaster resilience standards for public infrastructure and management of physical assets.

This leads to delays and inconsistencies in data, prevents automation of controls and hinders monitoring of fiscal information across the stages of expenditure.

12. **The information technology supporting core information systems is outdated and in need of a comprehensive upgrade.** Mexico's technological platform for core public financial management functions was developed in-house over the years by the SHCP. The platform uses various applications which are connected to one another through data interface applications and web services. While the system is currently strong enough to support federal government transactions, modules are becoming outdated. Key challenges include the need to ensure operational stability, harmonize catalogues and workflows, and develop a comprehensive system architecture strategy as well as enhancing security standards. In this regard, migrating the currently coexisting multiple information platforms to an integrated centralized solution through a shared-services approach would help to ensure the integrity of the



information and enable real time recording of administrative and financial transactions.

13. **GoM has decided to undertake a major overhaul of its federal PFM processes and systems with the goal of improving the quality and timeliness of financial information, expanding systems coverage by fully adopting international best practices and principles.** Reforms will support a transition towards accrual accounting principles in order to improve the quality of financial information and strengthen fiscal accountability. The key elements of this strategy are: (i) expanding coverage of public expenditure management controls and systems; (ii) improving the timeliness and consistency of PFM information; (iii) reducing the fragmentation of PFM information to support fiscal management; and (iv) strengthening the supporting technological platforms for PFM systems. This strategy provides the framework for the proposed project.

### C. Relevance to Higher Level Objectives

14. **The proposed project is aligned with the third objective of the Country Partnership Framework (CPF) for the period FY2020–FY2025,<sup>3</sup> to enhance the management of public resources.** GoM is committed to improving the government's ability to deliver public services and public infrastructure sustainably, transparently, efficiently, and equitably in order to meet aspirations for inclusive growth. In public finance policy, this will require opening fiscal space for investment through tax policy and improvements in the policy alignment and efficiency of public spending. The proposed Project complements policy measures by strengthening the Federal Government's public financial management functions and systems, improving the quality of information for decision-making, strengthening controls and transparency.

## II. PROJECT DESCRIPTION

### A. Project Development Objective

#### PDO Statement

15. The objective of the proposed Project is to improve the coverage and timeliness of public financial information and its use by the Federal Public Administration.

#### PDO Level Indicators

16. Successful achievement of the Project Development Objective (PDO) above will be measured with the following outcome level indicators:
- a) Share of the federal budget executed directly through the Integrated Financial Management Information System- (IFMIS) (coverage)
  - b) Reduction in the time to produce consolidated budget execution information (timeliness)
  - c) Share of units in SHCP using information from a common data warehouse primarily fed by the FMIS (use of information)

### B. Project Components

17. The proposed Investment Project Financing (IPF) operation comprises four components.

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<sup>3</sup> CPF to be discussed at the Board of Executive Directors on February 27, 2020.





### **Component 1 - Strengthening Core Public Financial Management Systems (US\$36 million)**

18. This component supports the designing, modernization and implementation of information systems for core public financial management, as well as the consolidation of practices on core budgeting, accounting, treasury and public debt management functions as part of an integrated PFM model under the responsibility of the SHCP and the modernization of PFM information systems. The component has three sub-components.
19. **Subcomponent 1.1 Updating of the Public Financial Management Information System and Governance Model.** This subcomponent will support implementation of an updated PFM model following an integrated approach through: (i) updates to budgeting, accounting, treasury, public debt and other core PFM processes; (ii) implementation of a PFM and the data governance model to support PFM functions; and (iii) capacity building and dissemination of information within the SHCP and agencies of the federal public administration.
20. **Subcomponent 1.2 Strengthening of Public Financial Management Processes and Controls.** This subcomponent will support: (i) design and implementation of a strategy to modernize information systems supporting core PFM functions incorporating strengthened processes and controls; (ii) systems for timely registration and enhanced control over expenditure execution across the stages of commitment, accrual, and payment; (iii) revision and recommendations to move towards the application of accrual accounting and international accounting standards (IPSAS) principles; (iv) improved controls on extrabudgetary expenditures; (v) enhanced budgetary controls on personnel services; and (vi) strengthened treasury and debt management processes and controls.
21. **Subcomponent 1.3 Increasing the Efficiency and Sustainability of Public Expenditure.** This subcomponent will: (i) strengthen the use of planning instruments, such as Medium Term Expenditure Framework, as well as using results informed budgeting, and their integration into the expenditure cycle; (ii) strengthen instruments to monitor performance and evaluation, including the development and implementation of analytical tools; (iii) strengthening of the public investment management model as part of the expenditure cycle and expansion of coverage of the public investment system; and (iv) integration of climate-change related considerations into the public investment and expenditure management cycles (See Box 1).

### **Component 2 – Designing and Implementing Resource Management Systems (US\$23 million)**

22. This component supports the design, modernization and implementation of information systems for administrative functions of federal government agencies including payroll, procurement, and asset management. The component will develop procedures and instruments for more effective integration of resource management functions into core PFM information systems. This component has two sub-components.
23. **Subcomponent 2.1 Optimization of Resource Management Processes.** This subcomponent supports: (i) the reengineering and optimization of resource management processes, such as payroll, public procurement, and assets management at the federal level; and (ii) design, development and implementation of resource management supporting tools, including payroll management systems for the federal public administration.
24. **Subcomponent 2.2 Integration of Resource Management Systems into the Financial Management Cycle.** This subcomponent will support: (i) design of integration and interoperability frameworks between resource management and core PFM information systems; (ii) harmonization of concepts, definitions and catalogs, and



establishing links across administrative and expenditure cycles; and (iii) development of standardized interoperability tools for the exchange of information between resource management and core PFM information systems

### **Component 3 – Enhancing the Use and Transparency of Public Financial Management Information (US\$10 million)**

25. This component seeks to design and implement information systems that strengthen SHCP's analytical capacity for policy-making using fiscal statistics and information generated by the public financial management system, enhance fiscal transparency practices and strengthen accountability mechanisms. The component has two sub-components.
26. **Subcomponent 3.1 Implementation of Public Financial Management Intelligence Tools.** This subcomponent will support: (i) design and implementation of tools to support evidence-based decision-making for fiscal and financial management including thematic dashboards; (ii) promotion and capacity building to establish an institutional culture for the use of information; and (iii) development of a fiscal and public financial management innovation laboratory.
27. **Subcomponent 3.2 Strengthening Fiscal Transparency.** This subcomponent will support: (i) streamlining of fiscal transparency practices; (ii) updating and roll out of fiscal transparency platforms; design of institutional mechanisms to curate and classify information for external users; and (iii) development and implementation of an outreach strategy on fiscal transparency for stakeholders.

### **Component 4 – Strengthening ICT and Capacity Building for SHCP (US\$ 41 million)**

28. This component aims to strengthen ICT infrastructure and capacity building within the SHCP to enable the implementation of information systems. This will be done through the strengthening of the SHCP's technological infrastructure, the development integrated platform structure to underpin the enhanced public financial management system and change management activities. The component has three sub-components.
29. **Subcomponent 4.1 Strengthening and Expansion of SHCP's Technological Infrastructure.** This subcomponent will support: (i) updating of the technological architecture underlying SHCP's PFM system; (ii) design and implementation of the SHCP's service cloud to support shared services within the Federal Public Administration; (iii) design and implementation of enhanced information security policies; and (iv) design and implementation of a business continuity plan; and the execution of information technology certification and audits.
30. **Subcomponent 4.2 Support platforms for the Public Financial Management Information Systems.** This subcomponent will support: (i) development and implementation of a unified helpdesk for core PFM information systems; design and implementation of a capacity building strategy for core PFM functions and systems; and (ii) development of a single document repository of legal, procedural and operational information.
31. **Subcomponent 4.3 Change Management and project implementation.** This subcomponent will support: (i) design and implementation of a change management strategy; (ii) design and implementation of a knowledge management and capacity building program; (iii) development and implementation of a communication campaign engaging internal and external stakeholders; and (iv) project coordination, administration, and risk management.

## **C. Project Beneficiaries**

32. **The Project has three categories of beneficiaries.** First, SHCP will benefit from more efficient and effective systems



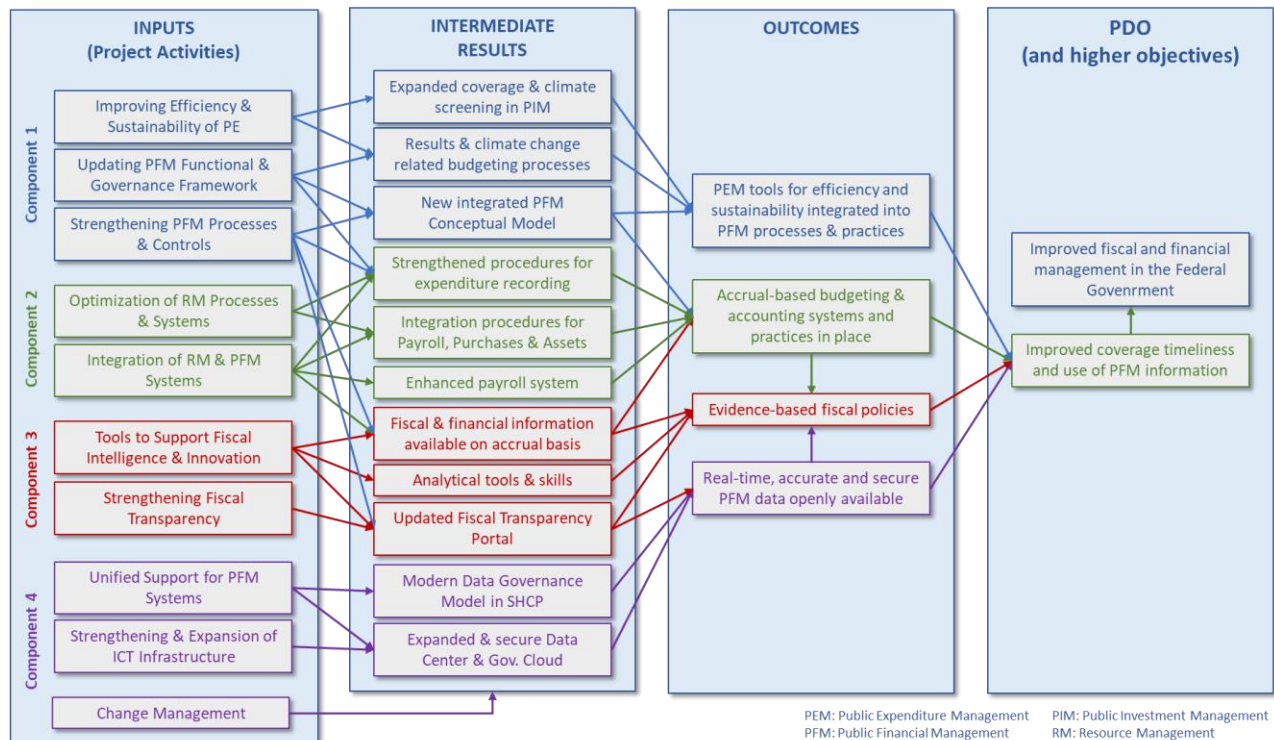
for overseeing and managing public finances, access to and management of high quality and timely financial information upon which to make decisions, enhanced technical capacity to manage and utilize that information for decision-making. The project will strengthen SHCP's institutional role as coordinator of the PFM system. Second, federal government agencies will benefit from being able to carry out administrative management tasks more efficiently and effectively thanks improvements in public administrative processes and integration of administrative systems into the financial management cycle. Third, civil society organizations and academics undertaking fiscal analysis will benefit from access to better quality and more timely information on public finances that they can use for accountability, advocacy and management purposes. Indirect beneficiaries are firms and households in Mexico who will benefit from improved fiscal policy decisions based on more complete, accurate and timely financial information and improved policy analysis.

#### D. Results Chain

33. **The Project seeks to bring about a significant improvement in the timeliness of public financial information, the way in which this information is used in evidence-based decision-making and thereby contribute to improvements in fiscal and financial management outcomes for the Federal Government.** Figure 1 presents a summary of the project theory of change. The Project will support the adoption of international standards and best practices, notably in accounting and budgeting. It will also address climate change related risks and further the integration of performance and climate change considerations in fiscal planning, budgeting and public investment management. The Project will upgrade business processes and information systems and foster the use and transparency of public financial information. The results chain rests on a number of assumptions: (i) the timely acquisition of project inputs, including consultancies, capacity building, goods and IT equipment; (ii) successful implementation of training and capacity building programs across the Federal institutions supporting all project components; (iii) timely development and roll-out of software solutions for core PFM and agency resource management systems; (iv) successful implementation of change management activities to overcome resistance to change, particularly reforms to agency resource management practices; and (v) continued support for the project and reform agenda, with champions among political leadership and at the higher levels of the civil service.



Figure 1 – Project Theory of Change



## E. Rationale for Bank Involvement and Role of Partners

34. **The GoM requested the Bank's support in the proposed Project in order to leverage the Bank's experience in public financial management reforms in Mexico and access its global expertise on complex PFM information system reforms.** The World Bank has worked with GoM in its public financial management reforms, through which it has gained an important understanding of the reform process and the challenges arising from the trajectory of reforms and Mexico's federal structure<sup>4</sup>. The Bank has extensive experience working on 145 complex PFM information system reform projects in 81 countries across all regions. Drawing on this experience the Bank can advise on implementation options, ensure that support is well-suited to the country's needs, and help address the policy, technical and change management challenges that may arise during implementation. The Government's choice of an investment operation allows it to benefit from technical support and advice on procurement and contract management procedures.

## F. Lessons Learned and Reflected in the Project Design

35. **The World Bank's engagement in PFM reforms in Mexico has demonstrated the importance of ensuring strong coordination mechanisms and leadership from high level officials at the SHCP.** Drawing on this experience, the proposed project uses a two-level governance structure designed to increase coordination across SHCP and ensure effective leadership of the reform process.

36. **The World Bank's international experience highlights the importance of effective change management, simple**

<sup>4</sup> Four Reimbursable Advisory Services (RAS) projects (P108417, P120790, P126616, and P132084) and a Technical Assistant Loan (TAL) on Results-Based Management and Budgeting (P106528).



**design and effective contract management.** The Bank's assessment identifies the most frequent factors contributing to the failure of public financial management projects in the region: organizational resistance and complex design with too many contracting processes<sup>5</sup>. The proposed project will support a change management strategy that will increase awareness of the need reform among key stakeholders, identify and address challenges to the reform process and strengthen the capacity of managers, policy makers and external stakeholders to use the information generated through the Integrated Financial Management Information System (IFMIS reforms). The proposed implementation strategy for IFMIS development will build on in house capacity, promote the integration of existing systems and minimize the acquisition of IT solutions that require heavy customization.

### III. IMPLEMENTATION ARRANGEMENTS

#### A. Institutional and Implementation Arrangements

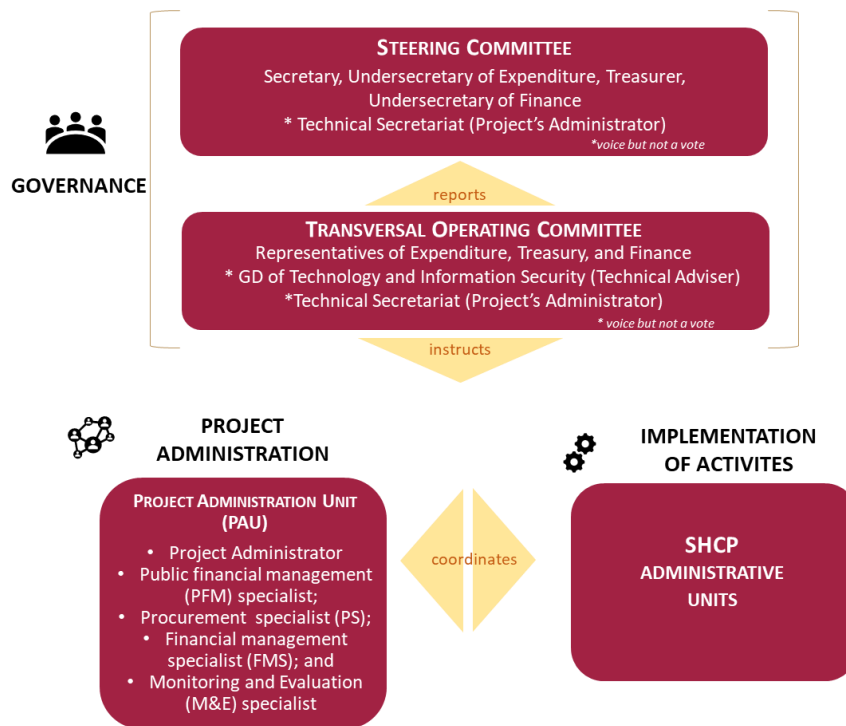
37. **The Project will be implemented over five years by SHCP.** The Project Administration Unit (PAU) will be located within SHCP's Under-Secretariat for Expenditures. The PAU will be led by a Project Administrator and will include fiduciary and monitoring and evaluation staff. The PAU will be responsible for: (i) operationalizing the strategic guidance from the Project's Steering and Transversal Operating Committees; (ii) overseeing implementation in coordination with the project execution units; and (iii) carrying out the Project's fiduciary, environmental and social risk management, administrative, and monitoring duties including the preparation of technical and financial monitoring reports required by the Steering and Transversal Operating Committees and the World Bank. No later than thirty days after the Effective Date, SHCP will establish and thereafter operate and maintain at all times during Project implementation the PAU with resources, staffing, and functions all acceptable to the Bank as set forth in the Operational Manual (OM).

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<sup>5</sup> Cem Dener, Joanna Watkins and William Dorotinsky. *Financial Management Information Systems: 25 Years of World Bank Experience on What Works and What Doesn't*. World Bank: Washington, DC. 2011.



Figure 2 - Project Implementation Arrangements



38. **A Steering Committee will set the project's strategic direction and Operational Committee will oversee implementation.** Figure 2 illustrates the institutional arrangements for the project. The Steering Committee (SC) will be chaired by the Secretary of Finance and comprise the Undersecretary for Expenditures, Undersecretary of Finance, and the Treasurer. The Administrator of the PAU will act as Technical Secretariat. The Steering Committee will define the overall public financial management reform's scope and priorities, approve and supervise the Government's reform agenda, resolve technical issues that cannot be addressed at an operational level and facilitate dialogue with other secretaries. SHCP will operate and maintain, at all times during Project implementation, a Steering Committee with composition and functions acceptable to the Bank as set forth in the OM. A Transversal Operating Committee (TOC) will oversee the implementation of the Project and will make decisions related to Project activities involving multiple undersecretaries. The TOC will comprise representatives from the Undersecretary for Expenditures, Undersecretary of Finance, and the Treasury. The General Directorate of Technology and Information Security (DGTSI) will serve as Technical Advisor, while the Project Administrator will serve as the Committee's Technical Secretariat. No later than 30 days after the Effective Date, SHCP will establish and thereafter operate and maintain a TOC with composition and functions acceptable to the Bank as set forth in the OM.
39. **Loan Financial administration.** *Nacional Financiera, S.N.C., I.B.D* (NAFIN) will act as the financial agent appointed by the borrower for the loan. In that capacity, NAFIN will manage loan disbursement process and provide overall implementation support and oversight.
40. **The OM details the processes and procedures for Project implementation.** The OM lays out: (i) procedures for Project implementation, monitoring and evaluation; (ii) the organizational structure of the Project, including the





functions and responsibilities of the PAU; (iii) Project procurement and financial management requirements and procedures; (iv) material measures and actions to comply with relevant ESS; (v) the Project's chart of accounts and internal controls; and (vi) the indicators to be used for Project monitoring and evaluation.

## B. Results Monitoring and Evaluation Arrangements

41. The PAU will be responsible for monitoring and reporting on Project results to the Bank and the SHCP through six-monthly progress reports. A dashboard for monitoring Project implementation and results will be developed to strengthen use of information and will serve to provide feedback to the Project both during implementation and beyond. Section VII presents the Project's PDO and intermediate indicators. These have been agreed upon with the Government for supervision purposes. The PAU is responsible for progress reports on Project implementation, outputs, and performance indicators, to the Bank. The Bank will conduct semi-annual supervision missions to evaluate the achievement of results and agree on adjustment or corrective measures when necessary. The achievement of the annual targets and implementation progress will be documented in Aide Memoires and Implementation Status and Results (ISR) report, and the results framework will be carefully monitored to ensure indicators' continuing relevance.

## C. Sustainability

42. **The sustainability of the Project's advances derives the broad involvement of all relevant stakeholders in SHCP and high level of political commitment to the public financial management modernization agenda.** Strong support is expected to be maintained beyond Project implementation, reinforced by the reform activities which will institutionalize these agendas within the Government's structure and processes. SHCP's decision to strengthen processes within federal agencies and expand access to financial information further reinforce the basis for project sustainability over time by creating new constituencies for reform.

## IV. PROJECT APPRAISAL SUMMARY

### A. Technical, Economic and Financial Analysis

#### Technical

43. **PFM and Project Technical Capacity.** While the proposed Project lays out a challenging set of PFM reforms, SHCP has a track record of successful reform implementation, leadership and a technical cadre to support the reform. Recent reforms have sought to align PFM practices with international accounting standards, introduce result-oriented budgeting practices and automate budgeting, accounting and treasury processes. The technical staff of SHCP have gained solid conceptual knowledge of PFM and experience in the management of PFM reform projects. Nonetheless, successful Project implementation will require the strengthening of capacity in key areas such as accounting and PFM technical reforms, ICT contract management and project management, monitoring and evaluation. The proposed project adds additional complexity to these reforms by supporting the inter-operability of the internal administrative systems of Federal agencies and core PFM systems. SHCP leadership will play an important role in mobilizing support for these reforms.
44. **Information Systems.** SHCP expects to apply a combination of tailor-made and pre-existing software solutions to cover financial management information system's needs. This strategy is considered to pose the least technical risk.



Tailor-made software solutions will be applied to cover core public financial management systems while pre-existing solutions (commercial off-the-shelf or open-source off-the-shelf) will be used to cover some of the administrative functions such as payroll management and business intelligence functions. In the past, SHCP has opted to adopt a tailor-made strategy to build the core financial management information systems (including most of the core systems such as SIAFF, SICOP, SCG, and the Budget Modification Module -MAP-) with significant success rate.

45. **IT Hardware.** The proposed project will require the acquisition of hardware infrastructure. Implementation of new information systems based on international best practices and the decentralization of registration will require enhanced IT capacity to process and store huge number of transactions. As part of the national ICT strategy, DGTSI expects cover the mentioned hardware infrastructure needs through the implementation of private cloud computing. This is in line with best practices of ICT infrastructure administration.
46. **Climate Change.** The Project will contribute to climate change mitigation, resilience and adaptation by integrating climate change into the public investment and expenditure management cycles through the adoption of risk management, screening and appraisal methodologies (See Box 1 page 8).
47. **Citizen Engagement.** The Project will contribute to citizen engagement through improvements in the quality, timeliness and accessibility of information on public finances, through improved reporting at Federal level on public policy and implementation. The results framework includes an indicator aimed at capturing and incorporating feedback to improve the fiscal transparency platform, by surveying user satisfaction on three specific dimensions quality, timeliness and accessibility of information provided.
48. **Gender.** The project focuses on back-office PFM processes and IT systems and builds capacity for all public workers engaged in public financial management functions, irrespective of gender. The Project is not gender tagged because it does not identify or address relevant gender gaps between women and men in human endowments. However, the Project does provide for the review and implementation of tools to improve the budgeting process and expenditure management which may include a gender focus. While current project design does not identify specific gender related budgeting and planning tools these may be defined after an initial assessment. There is scope within the project to incorporate a gender approach into budgeting and expenditure management during project implementation.
49. **Economic Analysis.** The Project is expected to yield fiscal savings stemming from more effective expenditure control and predictability of the budget, more resilient public investment, better cash management, modernized and streamlined administrative systems, and from operational and administrative efficiencies from the modernization of the ICT infrastructure. While, it is not possible to arrive at a comprehensive monetary value of benefits given the nature of the project, a specific subset of benefits is being quantified to shed light on the economic relevance of this project. Financial benefits are related to: (i) improvements in investment project management that will allow greater predictability of the execution of the project, a more efficient and comprehensive transaction system to manage the implementation of the projects, and greater and more effective monitoring that will support timely remedy actions during project execution; (ii) more efficient management of cash balances, and specifically from the introduction of optimized overnight deposits of idle cash balances; and (iii) savings from cost overrun of the investment portfolio through the introduction of tools and standards that will increase the quality of the appraisal and the effectiveness of the implementation of the projects. The economic analysis with an investment horizon of fifteen years, including ten years of operation before the system undergoes a major upgrading process and a discount rate of 10 percent (current EOCK for Mexico), suggests that project is feasible with a Net Present Value (NPV) in real terms of US\$57.61





million and an Internal Rate of Return (IRR) of 19.12 percent. Annex 2 presents details of the economic analysis.

## B. Fiduciary

### (i) Financial Management

50. **The FM risk for this project is deemed Moderate.** SHCP, the implementing entity has no recent experience in implementing World Bank financed operations. However, PFM in the Mexican Federal Administration has sound budgeting, treasury, accounting and control systems, which will be strengthened and supported under the scope of this Project. These FM country systems will be applied to Project transactions, as Bank financed operations are incorporated in the Mexico's federal budget framework and are executed accordingly. In addition, NAFIN will be appointed as Financial Agent for this Project and provide implementation and fiduciary support and oversight. Modifications in the implementing entity's organizational structure might create additional complexities for overall Project coordination and implementation, both within its different administrative units, and with other entities (for the adoption and implementation of PFM systems and regulatory updates). ICT investments will compete with other investment priorities and budget availability will need to be ensured. The adoption of new practices and systems will require extensive capacity building for a large number of systems users. This Project will also require cooperation of stakeholders to implement PFM reforms.
51. **To mitigate identified risks, the Project's institutional arrangements foresee a Steering Committee to define the overall PFM reform scope, a Transversal Operating Committee to oversee the operational implementation of the Project and a PAU to support and coordinate overall project implementation.** The PAU will be led by staff of SHCP and will be strengthened, as needed, with external staff financed with loan (Project) proceeds, to ensure that the implementation and fiduciary arrangements are satisfactorily maintained and implemented. The governance structure, rules for the operation of these Committees and administrative procedures will be described in detail in the OM, in terms acceptable to the Bank. This Project will support a change management and communication strategy to facilitate and externalize envisaged reforms and will include capacity building for staff that will utilize and operate enhanced PFM systems.

### (ii) Procurement

52. **After mitigation measures are considered, residual procurement risk is considered as Moderate.**
53. **Procurement will be conducted per the World Bank Procurement "Regulations for Borrowers under Investment Project Financing" dated July 1, 2016, revised on November 2017 and August 2018 for the supply of civil works, goods, consultants, and non-consultant services.** Procurement activities under Components 1 through 4 will be undertaken directly by the PAU.
54. **A procurement capacity assessment carried out for SHCP concluded that there is a lack of experience in dealing with procurement activities under World Bank Procurement Regulations and procedures** and there are many complex consultancy contracts to be implemented in the beginning of the project. A mitigation plan has been prepared and a close follow up will be provided by the WB to make sure that SHCP is able to develop procurement activities since the beginning of project implementation.
55. **A Project Procurement Strategy for Development (PPSD) was prepared by SHCP and identifies procurement**



**objectives, implementation risks, appropriate selection methods, market analysis, market approach and type of review by the WB.** The Borrower also prepared the Procurement Plan to be included in the new Systematic Tracking of Exchanges in Procurement (STEP) system covering at least the first 18 months of project implementation.

56. **Most project activities will be carried out via Request for Bids or similar methods for the purchase of goods and non-consulting services.** The contracting of Consulting Services for firms will be carried out via the following methods: Quality- and Cost-Based Selection Method (QCBS), Quality-Based Selection (QBS); Selection under a Fixed Budget (SFB); Least- Cost Selection (LCS); Selection Based on Consultants' Qualifications (CQS); exceptionally Direct Contract Selection (DC); and ,for individuals, via comparing CVs.
57. **The World Bank's Standard Procurement Documents will govern the procurement of World Bank financed Open International Competitive Procurement.** For procurement involving National Competitive Procurement, the harmonized procedures and documents agreed with the Ministry of Public Administration (SFP) and the Inter-American Development Bank will be used or any other document agreed with the Bank through the Procurement Plan.
58. Fiduciary risks and mitigation actions are described in Annex 1.

### C. Legal Operational Policies

	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

### D. Environmental and Social

59. **Environmental and social risks are rated low.** The Project will finance consulting and advisory services, capacity building and training to help improve and consolidate Mexico's technological platform for public financial management. Investment in hardware and software programming are expected and related e-waste and energy efficiency aspects need to be considered. No activity will finance or lead to physical displacement, construction works, negative impacts on social inclusion, or negative impacts on vulnerable populations. The strengthening of fiscal transparency and citizen participation initiatives considered under Component 3 are expected to enhance public accountability and transparency.
60. **Relevant Environmental and Social Standards (ESS) are ESS1 (Assessment and Management of Environmental and Social Risks and Impacts), ESS2 (Labor and Working Conditions), and ESS3 (Resources Efficiency and Pollution Prevention and Management) and ESS10 (Stakeholder Engagement and Information Disclosure).** The SHCP will incorporate environmental and social risk management processes and procedures consistent with ESS1, ESS2 and ESS3 in the Project's OM. Regarding ESS2, the applicable national legal framework is aligned with the principles of the standard, and the Project will be implemented primarily by government staff from the SHCP. Consultancy firms will be requested to ensure that their working conditions are in line with ESS2. This requirement will be reflected in the OM, bidding documents, and the actual contracts between the SHCP and its providers. SHCP has prepared satisfactory Labor Management Procedures (LMP) that will be part of the Project's OM. The OM will provide guidance on labor requirements to be incorporated in terms of reference, contracts, and reporting mechanisms to ensure that



the activities and outputs are in line with the national laws and regulations and ESS2 for labor management. SHCP will establish, maintain, and operate a Grievance Redress Mechanism (GRM) for their employees and consultancy firms will be requested to provide documented evidence of the existence and use of GRM. Regarding ESS3, the OM will include relevant national regulations and institutional practices for e-waste management and potential actions needed to secure full compliance with the national regulations and ESS3. An E-Waste Management Plan will be developed prior to preparation of the first electronic equipment acquisition process and will be then implemented throughout the Project period. Regarding ESS10, considering that the Project has Low environmental and social risk and no other directly Project-affected parties than few individuals and consultancy firms, the main stakeholder engagement activities have been included in the Environmental and Social Commitment Plan (ESCP) instead of preparing a stand-alone Stakeholder Engagement Plan (SEP). The ESCP was disclosed on December 12, 2019<sup>6</sup>. Starting at year one, the SHCP will disclose information on Project actions and progress to stakeholders within SHCP and establish a mechanism to ensure effective communication with them. Workshops and dissemination material will be developed to inform on the Project results during the last year of Project implementation. Project activities on fiscal transparency are planned for the third year of implementation and will engage relevant civil society stakeholders. SHCP has a GRM and transparency channels that will be used throughout Project implementation to address any complaints related to the Project. The GRM will be described in the OM and the SHCP website.

## V. GRIEVANCE REDRESS SERVICES

61. **Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS).** The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit <http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service>. For information on how to submit complaints to the World Bank Inspection Panel, please visit [www.inspectionpanel.org](http://www.inspectionpanel.org).

## VI. KEY RISKS

62. Overall, the operation is deemed to have a **moderate** risk level.
63. **Technical Design of Project or Program: Substantial.** PFM projects that entail whole-of-government reforms are technically challenging, particularly so when these involve the development of information systems. Technical risks related to reform management are mitigated by the technical capabilities of SHCP and their experience in implementing reforms over the last two decades, together with technical support foreseen under the project. Technical risks related information systems are mitigated by SHCP's preference for a combination of tailor-made and pre-existing software solutions, rather than the adoption of large, integrated systems that require heavy customization, and the provision of support for IT development under the project. The adoption of the new practices and systems will require the training of a large number of public employees with public financial management responsibilities, the project design will include technical assistance and capacity building activities to meet these

<sup>6</sup> <https://projects.worldbank.org/en/projects-operations/document-detail/P169959>



needs. The average timeframe for implementation of PFM projects with significant information technology components is over seven years. The current time frame, reflecting GoM programming priorities, is tight.

64. **Stakeholders: Moderate.** The stakeholder risk rating is not related to the Environmental and Social Framework. Both environmental and social risks are rated low. The project requires cooperation of stakeholders within SHCP and across Federal government agencies. The integration of core public financial management and agencies' internal administrative systems might be challenging, given that agencies have customized solutions to meet their needs and vested interests in maintaining current operating procedures may be possible. In anticipation of possible resistance, the Project provides for a change management and communications strategy work that will work with stakeholders across the Federal administration. Change management activities seek to internalize reforms within the operational teams - an observed weakness in past reform efforts - and secure a high level of commitment to the reforms from the highest level of the SHCP and across Government.



**VII. RESULTS FRAMEWORK AND MONITORING**

**Results Framework**

**COUNTRY: Mexico**

**Modernization of Public Financial Management Systems in Mexico**

**Project Development Objectives(s)**

To improve the coverage and timeliness of public financial information and its use by the Federal Public Administration.

**Project Development Objective Indicators**

Indicator Name	DLI	Baseline	End Target
<b>Improved coverage of public financial information</b>			
Share of federal budget directly executed through the IFMIS (Percentage)		75.00	88.00
<b>Improve timeliness of public financial information</b>			
Reduction in the time to produce consolidated budget execution information (Days)		30.00	7.00
<b>Improved use of public financial information by the Federal Public Administration</b>			
Share of units in SHCP using information from a common data warehouse primarily fed by the FMIS (Percentage)		0.00	100.00



### Intermediate Results Indicators by Components

Indicator Name	DLI	Baseline	End Target
<b>Strengthening Core Public Financial Management Systems</b>			
Core PFM sub-systems are conceptually integrated and technologically connected on-line (Text)		Core PFM processes and IT solutions are fragmented (MAP, SIAFF, SICOP, etc)	All PFM core processes and information systems were reviewed and are technologically interconnected
Expenditure cycle stages registered on time (Text)		A baseline will be constructed as part of project activities during the first year of the project.	An end target will be constructed as part of project activities during the first year of the project.
Stages of the public investment cycle (planning, formulation, registry, budget execution, monitoring, evaluation and transparency) that are integrated within public investment management system (Text)		PIM stages, core processes and workflows of information, are fragmented and not integrated to the FMIS.	All PIM stages, core processes and workflows of information, have been integrated and are technologically interconnected with the FMIS.
Share of central government infrastructure projects that are formulated under climate resilience methodologies (Percentage)		0.00	70.00
Share of budgetary programs with revised program structure and medium-term financial and performance projections aligned with medium-term expenditure framework (Percentage)		0.00	100.00
<b>Designing and Implementing Resource Management Systems</b>			
Share of Secretariats managed by a standardized payroll management system (Percentage)		0.00	70.00
Interoperability between administrative and core financial management processes implemented (Text)		Not integrated	Resource management information systems are integrated to core PFM systems based on interoperability standards
<b>Enhancing the Use and Transparency of Public Financial Management Information</b>			
Integrated dashboard with strategic and operational information of the following PFM areas has been implemented: budgeting, cash management, accounting, debt management and public investment (Number)		0.00	5.00
Data analytics tools for PFM information have been implemented and used for producing fiscal statistics and reports (Yes/No)		No	Yes
Integrated PFM transparency tools are publicly available combining at least information about program results,		None. SHCP is well scored in terms of budget transparency. SHCP has different portals about budget, public investment	Transparency tools are harmonized and integrated and respond to a citizen perspective that allows to better



Indicator Name	DLI	Baseline	End Target
budgeting, public investment and budget execution (Text)		and procurement, and have done important efforts to publish fiscal information. However, these initiatives are not harmonized nor integrated and are heterogenous in terms of incorporating the citizen perspective	understand the PFM cycle.
Improved user satisfaction related to accessibility, timeliness and quality of information provided by the fiscal transparency platform (Percentage)		0.00	70.00
<b>Strengthening ICT and Capacity building for SHCP</b>			
Percentage of core PFM information systems have successfully passed external cyber security audit, during the last 18 months (Percentage)		0.00	100.00
Percentage increase of core PFM information systems' up-time (Text)		There is no data about information systems up-time, but there are users complains about stability. An up-time review will be done during the first year of the project, and generate a business standard for up-time	An end target will be defined through the up-time review.
Unified IFMIS help desk for internal and external users is in place (Yes/No)		No	Yes
Share of administrative units certified on conceptual and operational aspects of integrated PFM processes (Number)		0.00	90.00

#### Monitoring & Evaluation Plan: PDO Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Share of federal budget directly executed through the IFMIS	Percentage of federal budget that is directly executed including payment	Annual	Budget Expenditure Reports	The budget directly executed will be measured as the sum of	PAU / UCG/ UPCP



	to final beneficiary through the Integrated Financial Management Information System (IFMIS)			federal budget executed by the central government, that does not include trusts, the expenditure directed contributions to civil associations, among others. Considering the nature of the expenditure, only budget of Secretariats ( <i>Ramos Administrativos</i> ) are subject to be measured by this indicator. It will be calculated in May for the previous year.	
Reduction in the time to produce consolidated budget execution information	This indicator measures the time reduction, in number of days, in having internally available consolidated budget execution information of the Federal Public Administration.	Semiannual	Internal budget reports	Scope of the indicator: Budget execution information of the Federal Public Administration excluding State Owned Enterprises. Stages required for expenditures: commitment, executed ( <i>Ejercido</i> ) and payment	PAU / UCG/ UPCP
Share of units in SHCP using information from a common data warehouse primarily	This indicator measure the percentage of public	Semmiannual	Project Reports	The PAU shall report the units subject	PAU / DGTSI





fed by the FMIS	financial management units involved in the Public financial Management cycle in SHCP using information from a common data warehouse primarily fed by the FMIS.			to be counted on this indicator 30 days after effectiveness at the latest and shall report any changes to the WB thereafter.	
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#### Monitoring & Evaluation Plan: Intermediate Results Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Core PFM sub-systems are conceptually integrated and technologically connected on-line	Core PFM processes that were reviewed to ensure a systemic perspective, reflecting a functional and integrated PFM ecosystem, and are technologically operating as an integrated solution, which produce consistent and timely information.	Annual	SHCP's PFM systems	The core PFM processes are described in the OM.	PAU
Expenditure cycle stages registered on time	Expenditure transactions that are registered by spending units according to the occurrence of the events. Expenditure execution cycle stages refers to commitment, accrual and payment stages, commonly known as	Annual	Project Reports	Scope of the indicator: Federal Public Administration excluding State Owned Enterprises.	PAU / UCG



	“compromiso, ejercido y pagado”, registraton of these stages is in charge of spending units.				
Stages of the public investment cycle (planning, formulation, registry, budget execution, monitoring, evaluation and transparency) that are integrated within public investment management system	Identification of the stages of the public investment management cycle that are automatized, functionally integrated with a full transactional perspective, and that are producing information in an integrated manner as part of the FMIS.	Annual	Reports from the public investment management system		PAU / UI
Share of central government infrastructure projects that are formulated under climate resilience methodologies	This indicator measures the percentage of infrastructure projects of central government that were formulated using methodologies with climate resilience and climate change adaptation criteria, if these are located disaster-prone location based on the updated disaster risk map.	Annual	Reports from the public investment management system		PAU / UI
Share of budgetary programs with revised program structure and medium-term financial and performance projections aligned with medium-term expenditure framework	Percentage of budgetary programs that were subject to a program structure review and have a consistent medium-term financial and performance projection and aligned to	Annual	Project reports	Scope: Given the nature of different type of Budgetary Programs in Mexico, only Programs with social and infrastructure will be considered as base for	PAU / UPCP



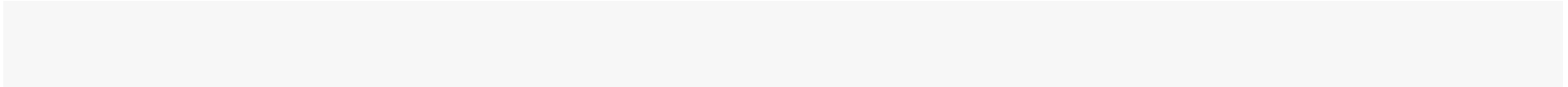
	the medium-term expenditure framework. Given the nature of different type of Budgetary Programs in Mexico, only Programs with Social Impact and Infrastructure oriented will be considered as base for measuring this indicator.			measuring this indicator.	
Share of Secretariats managed by a standardized payroll management system	Percentage of payroll units of the central government that are implementing a standardized payroll management system				
Interoperability between administrative and core financial management processes implemented	This indicators measures whether the resource management information systems for: a) payroll, b) procurement, and c) asset management, are integrated to core PFM systems based on interoperability standards.	Annual	Project reports	The indicator allows to report progress on either of the three, although the target is for all o f them to be integrated.	PAU / DGTSI
Integrated dashboard with strategic and operational information of the following PFM areas has been implemented: budgeting, cash management, accounting, debt management and public investment	PFM areas (budgeting, cash management, accounting, debt management, and public investment) that have implemented strategic and operational dashboards based on a common data warehouse.	Annual	Project reports		PAU



Data analytics tools for PFM information have been implemented and used for producing fiscal statistics and reports	Identification of new data analytic tools that were adopted to produce fiscal statistics and reports along the PFM cycle using information from the common data warehouse.	Annual	Project reports		PAU
Integrated PFM transparency tools are publicly available combining at least information about program results, budgeting, public investment and budget execution	Transparency tools are citizen oriented, allowing for an integrated perspective of the PFM cycle: planning and results, public investment, budgeting, and budget execution (including procurement).	Semi-annual	Project reports		PAU
Improved user satisfaction related to accessibility, timeliness and quality of information provided by the fiscal transparency platform	This indicator measures the level of satisfaction, in percentage, of participating civil society organizations in a consultation process, with SHCP's fiscal transparency platform on three dimensions: accessibility, timeliness and quality of information provided.	Semi-Annual	Satisfaction survey to be carried out by SHCP.	SHCP will define the channel to implement the satisfaction survey. The survey should include at least three separate questions on each of the dimensions: accessibility, timeliness, and quality.	PAU
Percentage of core PFM information systems have successfully passed external cyber security audit, during the last 18 months	Percentage of external cyber security audits to core PFM information systems (budgeting, cash management, accounting, debt, public investment) that were successfully	Annual	External audits		PAU / DGTSI



	passed during the last 18 months.				
Percentage increase of core PFM information systems' up-time	Measures the level of stability of core PFM information systems, as the lowest daily information systems' up-time measured during the last month.	Semi-annual	Project reports	Uptime is a metric that represents the percentage of time that hardware and IT system together are successfully operational. It refers to when an information system is working, versus downtime, which refers to when an information system is not working.	DGTSI / PAU
Unified IFMIS help desk for internal and external users is in place	An integrated IFMIS help desk following unified standards for core PFM systems	Semi-annual	Project reports		PAU
Share of administrative units certified on conceptual and operational aspects of integrated PFM processes	Percentage of Administrative and Financial Units (UAFs or equivalent) that are certified on all conceptual and operational aspects of integrated PFM processes, under a train of trainers approach, where UAFs will be the trainers.	Semi-annual	Project reports	The project will train and certify UAFs or equivalent. Certification will demand personnel trained in all sub-systems defined in the Conceptual Model.	PAU





## **ANNEX 1: Implementation Arrangements and Support Plan**

### **COUNTRY: Mexico**

### **Modernization of Public Financial Management Systems in Mexico**

#### **Strategy and Approach for Implementation Support**

1. **The implementation strategy for the Project was developed based on the risks and mitigation measures related to the operation and targets the provision of flexible and efficient implementation support to the client.** It also considers the lessons learned from the Results-Based Management and Budgeting TAL (P106528). The implementation support strategy focuses primarily on the implementation of risk mitigation measures as follows:
  - (a) **Inter-institutional coordination.** To ensure coordination within the different areas of the SHCP and between SHCP and the other institutions and agencies involved, the Bank will carry out a close supervision to support planning and results monitoring. Bank supervision will include but will not be limited to semiannual supervision missions.
  - (b) **Technical support.** The Bank technical and fiduciary teams will have continuous dialogue with SHCP and, specifically, the PAU to support implementation and the use performance information, including progress report mechanisms. Implementation support missions will include public sector specialists with expertise in ICT policy and PFM to help guide the PAU with project implementation and policy dialogue.

#### **Financial Management (FM) Assessment**

2. **The FM risk for this project is deemed Moderate.** SHCP, the implementing entity has no recent experience in implementing World Bank financed operations. However, Public Financial Management (PFM) in the Mexican Federal Administration relies on sound budgeting, treasury, accounting and control systems, which will be strengthened and supported under the scope of this Project. These FM country systems will be applied to Project transactions, as Bank financed operations are incorporated in the Mexico's federal budget framework and are executed accordingly. In addition, NAFIN will be appointed as Financial Agent for this Project and provide implementation and fiduciary support and oversight. Modifications of the implementing entity's organizational structure might pose additional complexities for overall Project coordination and implementation, both internally within its different administrative units, and externally with other entities (for the adoption and implementation of PFM systems and regulatory updates). ICT investments will need to compete with other investment priorities and budget availability will need to be ensured. The adoption of new practices and systems will require extensive training for a large number of systems users and the cooperation of stakeholders to implement PFM reforms.
3. **To mitigate identified risks, a Steering Committee define the overall PFM reform scope and priorities, a Transversal Operating Committee will oversee operational implementation and a PAU will be put in place to support and coordinate overall project implementation.** This PAU will be led by SHCP staff and will be strengthened, as needed, with complementary external staff financed with loan (Project) proceeds, to ensure that the implementation and fiduciary arrangements are satisfactorily maintained and implemented. The governance structure and rules for the operation of these Committees will be described in the OM, in terms acceptable to the Bank. The Project will support a change management and communication strategy to facilitate and internalize



reforms and include capacity building for staff that will utilize and operate enhanced PFM systems.

4. **Implementing Entity.** The project will be implemented by the SHCP through the Under-Secretariat for Expenditures. The project covers activities and investments aimed at strengthening and integrating core Public FM and resource management functions. Various administrative units within SHCP will be responsible for the activities and components under this Project.
5. **Project Administration Unit.** The PAU will be led by SHCP own staff and strengthened, as needed, with complementary external staff financed with loan (Project) proceeds, to ensure that the implementation and fiduciary arrangements are satisfactorily maintained and complied with the OM. At the time of appraisal, the PAU was not in place. The PAU must be in place no later than 30 days after the Effective Date and adequately staffed throughout Project implementation in a manner acceptable to the Bank<sup>7</sup>. Throughout Project implementation, SHCP will maintain the PAU, with adequate and sufficient staff, as part of the overall implementation arrangements as set forth in the loan agreement.
6. **Loan Financial administration.** NAFIN will act as the financial agent appointed by the Borrower for the loan. In that capacity, NAFIN will manage loan disbursement process and provide overall implementation support and oversight.
7. **Accounting and Budgeting arrangements.** The Project budget is allocated through the federal yearly budget. Budget execution and control are subject to provisions of the annual budget Law, the Federal Budget and Fiscal Responsibility Law and the General Law of Government Accounting. Project transactions and budget control will be incorporated and managed through the accounting and budgetary institutional systems in place, which will be supported and further enhanced under this Project.
8. **Accounting and budget systems.** SHCP keeps accounting records and budget control through the accounting and budget institutional systems in use at country (federal) level. The Accounting and Budget System (SICOP) is used for institutional accounting records, and the System for Financial Administration (SIAFF), linked to the Federal Treasury (TESOFE) is used for payments, budget execution and control. The Project's financial reports will be prepared based on the standard model agreed by the Bank with the Ministry of Public Administration (SFP) for the Mexico portfolio. The information used to prepare these reports will be retrieved from the institutional accounting and budget systems. NAFIN will provide support in the preparation of project's financial reports and ensure that these meet required quality standards.
9. **Internal control and internal auditing.** In addition to strict regulatory provisions under the federal budget framework, SHCP is subject to the Federal Public Administration Internal Control Standards issued by the SFP. As a whole, these provide for sound internal control arrangements for the Project. The internal auditing function is carried out by SHCP's Internal Control Unit (*Órgano Interno de Control*) which reports to the SFP and follows Public Audit Standards and guidelines issued by SFP. SFP also approves the Internal Control Unit's annual work program, oversees its operation and receives its audit reports. SHCP is also within the scope of the Supreme Audit Institution (*Auditoría Superior de la Federación*), which is independent from the three levels of Government in Mexico.

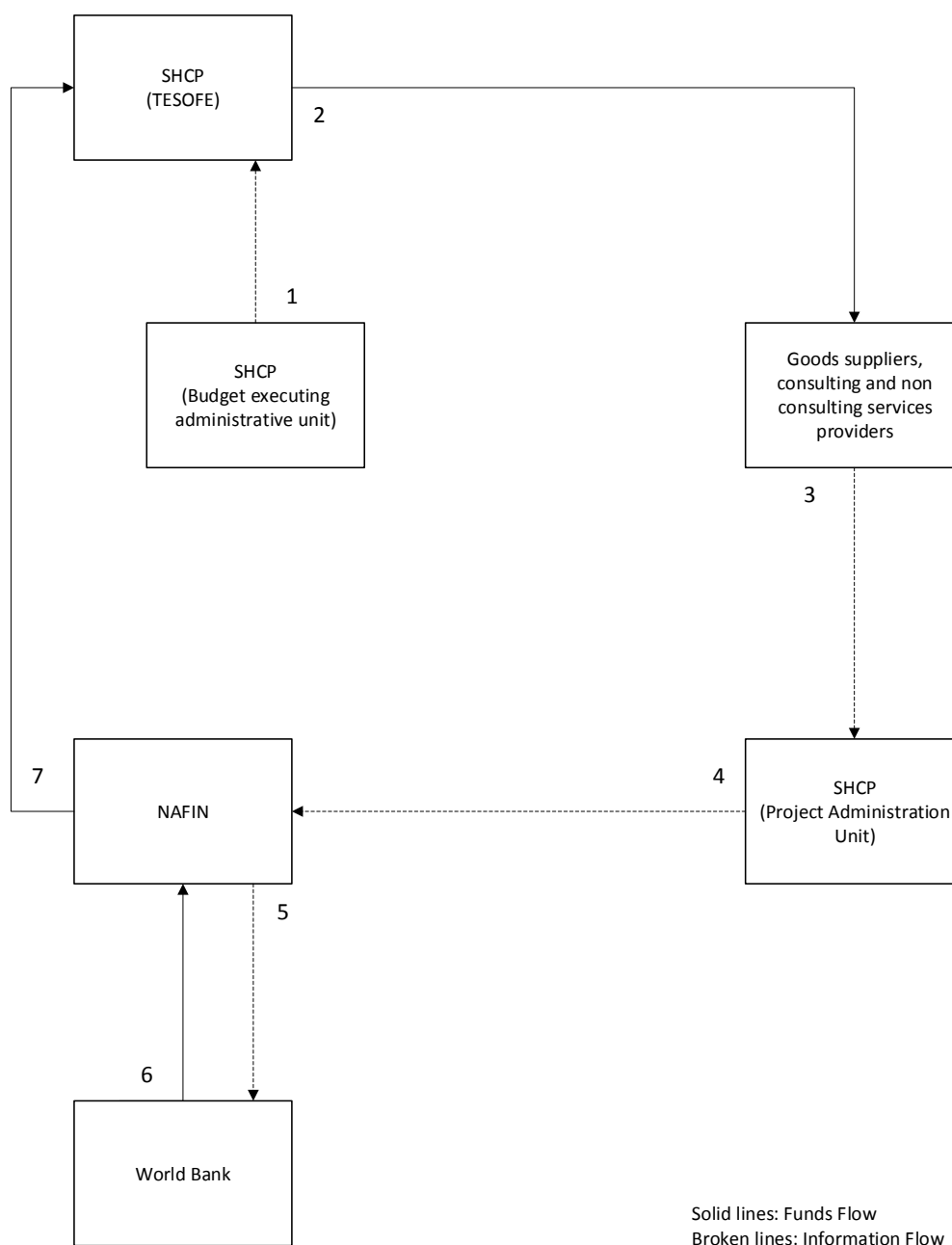
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<sup>7</sup> See also Sections 5.01 & 5.03 of the General Conditions for IBRD Financing: Investment Project Financing (2018).





Figure 1: Flow of funds



10. The flow of Funds is presented in Figure 1 above and the steps are explained below.

1. Based on the budget approved annually by the Congress, SHCP (each administrative unit to which budget is allocated for Project activities or investments) will request to the TESOFE, the transfer of funds (payments), pre-financing with treasury funds, payments to the goods suppliers and the consulting and non-consulting services providers, by issuing a payment instruction (*Cuenta por Liquidar Certificada – CLC*).



2. After receiving the CLC, TESOFE will transfer funds (payment) to the goods suppliers and the consulting and non-consulting services providers.
3. Goods suppliers and the consulting and non-consulting services providers will send to SHCP (Project Administration Unit) the documentation supporting paid expenses (invoices).
4. SHCP (Project Administration Unit) will prepare and submit the reimbursement applications to NAFIN.
5. NAFIN receives the reimbursement application from SHCP, for review and validation. Once validated, NAFIN submits the Loan withdrawal application to the Bank.
6. The Bank will reimburse loan proceeds to NAFIN.
7. NAFIN will transfer disbursed loan proceeds to the TESOFE.

#### 11. Disbursement arrangements.

Disbursement method	The following disbursement methods may be used under the loan: <ul style="list-style-type: none"> <li>Reimbursement.</li> </ul>
Advance method	Not considered for this Project
Supporting documentation	Statements of Expenditures (SOE), Invoices and Receipts.
Retroactive expenditures	Eligible payments must meet the following conditions: <ul style="list-style-type: none"> <li>▪ Paid on or after the date specified in the Loan Agreement (prior to the signing of the Loan Agreement).</li> <li>▪ Do not exceed 20 percent of the loan amount.</li> <li>▪ The retroactive expenditures would be subject to the same systems, controls and eligibility criteria as for non-retroactive expenditures, and be subject to the regular Project external audit.</li> <li>▪ Goods and services must be procured under procurement regulations and principles acceptable to the Bank.</li> </ul>

12. **External Audit.** Annual audits on project financial statements and eligibility of expenditures will be performed in accordance with Bank policy, as reflected in the Audit Terms of Reference and Memorandum of Understanding agreed between the Bank and SFP. An independent audit firm appointed by SFP and acceptable to the Bank will conduct the project audits. Audit terms of reference for the annual financial audit will require independent auditors to report on the actual use of funds and the scope of the audit will cover all Project funds, ensuring that loan proceeds are used for the intended purposes.

#### Procurement

13. **Project Institutional and Implementation Arrangements.** Procurement activities for the proposed project will be carried out in accordance with the World Bank's Procurement Regulations for IPF Borrowers - July 2016, revised November 2017 and August 2018 ("Procurement Regulations"), and the provisions stipulated in the Loan Agreement. The Project Administration Unit (PAU) will be the responsible to implement procurement activities to all 4 components of this Project, under coordination of Under-Secretariat for Expenditures. Each contract to be financed is agreed between the Borrower and the Bank in the Procurement Plan, including: activity description; different procurement methods; estimated costs; procurement review requirements (prior or post) and time frame for every phase of the planned activity. The Procurement Plan will be updated in STEP whenever required, to reflect the actual project implementation needs.



## **Procurement Methods**

- 14. Procurement of Works.** No civil works carried out by SHCP will be financed under this project.
- 15. Procurement of Goods and Non-Consulting Services.** Goods to be procured under this project include the acquisition of software, hardware, including those to support SHCP institutional systems development. In addition, the project will finance non-consulting services, such as training, communication and outreach. Purchases of goods and non-consulting services for individual contracts costing less than US\$100,000 will be procured by SHCP through shopping procedures. Purchase over this amount should be procured by Request for Bidding -RFB- (Open-National/International). Direct contracting could be used on an exceptional basis, under the circumstances explained in paragraphs 6.8 to 6.10 of the Regulations.
- 16. Procurement of Consultant Services.** The project will require several consultants' services to carry out a variety of activities such as: update of conceptual models on PFM, improvement of systems, processes, controls and other functions; improvement of governance model, GFP cycle, update and implementation of review methodologies and quality of expenses, among many other activities described in the procurement plan. Some of these activities have large estimated amount and will need to use WB Standard Procurement Documents and must have prior review
- 17. Procurement of Consultant services (Firms)** - Most contracts for firms carried out by SHCP are expected to be selected using the QCBS. Consultant assignments of specific types, as agreed previously with the Bank in the Procurement Plan, may be selected using the following selection methods: (i) QBS; (ii) SFB; (iii) LCS; (iv) CQS; and exceptionally (v) DC, under the circumstances explained in paragraph 7.13 to 7.15 of the Regulations.
- 18. Procurement for Consultant Services (Individual).** Individual consultants will be hired to provide technical advisory and project support services and will be selected in accordance with the comparison of at least 3 CVs.

## **Assessment of the Implementing Agency Capacity to Implement Procurement**

- 19. The procurement policy framework, regulation, procedures and documents in use at SHCP are suitable for WB procurement regulation.** They are all documented and publicly available. SHCP has a clear system of accountability with defined responsibilities and delegation of authority on who has control of Procurement decisions. Procurement decision for this project will be coordinated by Under-Secretariat for Expenditures.
- 20. The adequacy of staffing is an issue to be addressed.** The plan in the beginning of the Project is to hire a Procurement Specialist and at least one assistant to be part of the PAU and provide support from the beginning year when there are several complex consultant activities planned. This should provide a smooth start to project implementation.

## **Procurement Plan**

- 21. The Procurement Plan prepared by SHCP is uploaded in STEP providing the basis for the procurement methods.** The procurement plan will be updated as necessary and required to reflect actual project implementation needs and improvements in institutional capacity.



## 22. Procurement Action Plan

Risks	Mitigation Actions	Agency Responsible	When
Large number of contracts, such as consulting services of firms, with elevated amount of estimated cost (prior review processes).	<p>A close follow up with the PAU will be necessary to speed up processes and make sure that the planning dates for activities implementation are met. Preparation of TORs, bid documents and evaluation documents are the greatest concerns.</p> <p>The Procurement Plan predict 17 contracts to be implemented in the first year. It will be very complex and demanding. WB will have close follow up on this issue and if necessary, some activities will need to be reprogrammed for another phase of the Project.</p>	SHCP (PAU)/WB	Prior to Project planning and During Project Implementation
Lack of necessary Experience on implementing this kind of Project	<p>In implementing agency will be created with the hiring of a Procurement Specialist with experience working with International development entity and also an assistant to give support on several activities.</p> <p>It is of great importance the coordination among PAU procurement team and different technical units that will be requesting contracts, preparing TORs and technical specifications, evaluating proposals and revising bidding documents.</p> <p>WB team will be available for any necessary support on this issue, also providing specific trainings whenever it is necessary.</p>	SHCP (PAU)	During Project Implementation

**23. Project's Operational Manual.** An OM was prepared for this Project which covers the relevant procurement procedures, including detailed institutional processes, accountability, composition of technical and administrative evaluation committees, time frames for documents preparation and approvals. The OM also provides guidance on how to prevent and address conflict of interest, fraud and corruption.

**24. Notification of Business Opportunities.** A General Procurement Notice will be published in the United Nations



Development Business (UNDB). Specific Notices and Request for Expressions of Interest will be published following the Regulations and the Harmonized procedures agreed with the SFP and the Inter-American Development Bank.

### World Bank implementation support

- 25. World Bank implementation support.** Bank procurement staff will undertake at least two missions in the first two years after the project has been declared effective to monitor and review compliance with procurement policies. The Bank's supervision of SHCP will consist of joining official WB team missions and procurement post reviews (analysis of procurement documents and field visits). These reviews are done according to procedures acceptable to the Bank and should be done in addition to technical and financial reviews and audits.

### Implementation Support Plan and Resource Requirements

Time	Focus	Skills Needed	Resource Estimate	Partner Role
First twelve months	Task management	Task team leader/ Public sector specialist	20 Staff Weeks (SWs)	
	Procurement	Procurement specialist	6 SWs	Training and Preparation
	FM	FM specialist	6 SWs	Training and Preparation
	Social Standards	Social Specialist	2 SW	ESCP Support and Monitoring
	Environmental Standards	Environmental Specialist	2 SW	ESCP Support and Monitoring
	Operations support	Operations officer	2 SWs	Revision of documentation
	Technical support	ICT Policy specialist / Public Sector Specialist	10 SWs	Technical support
	Technical Support	PFM Specialist/Public Sector Specialist	10SW	Technical support
12-48 months	Task management	Task team leader/ Public sector specialist	60 SWs	Task Leadership
	Procurement	Procurement specialist	12 SWs	Training and Supervision
	FM	FM specialist	12 SWs	Training and Supervision
	Social Standards	Social Specialist	6 SW	ESCP Support and Monitoring



Environmental Standards	Environmental Specialist	6 SW	ESCP Support and Monitoring
Operations support	Operations officer	3 SWs	Revision of documentation
Technical support	ICT Policy specialist/Public Sector Specialist	10 SWs	Technical support
Technical support	PFM Specialist/Public Sector Specialist	10SW	Technical support

Other

Skills Mix Required

Skills Needed	Number of Staff Weeks	Number of Trips	Comments
Task Team Leader (Public Sector Specialist)	80	8	
Procurement Specialist	18	8	
Financial Management Specialist	18	8	
Social Specialist	8	4	
Environmental Specialist	8	4	
Operations Officer	5	6	
ICT Policy Specialist/Public Sector Specialist	20	8	
PFM Specialist/Public Sector Specialist	20	8	



## ANNEX 2: Economic and Financial Analysis

1. **There are methodological challenges to the measurement of the benefits associated with IFMIS projects in terms of increased predictability, performance, participation, transparency and government accountability, improved strategic allocation of resources, operational efficiency and support for fiscal discipline.** Significant benefits are intangible and cannot be properly translated to monetary terms. The production chain from the back-office where PFM functions are managed to service delivery is completely interconnected. However, final effects and outcomes in service delivery associated to PFM improvements are hard to isolate, quantify and value. Given these constraints, the economic analysis for the proposed Modernization of Public Financial Management Systems Project is based on: (i) a limited number of benefits: improvements in investment management; (ii) supply agreements; and (iii) cost overrun savings.

### *Improvements in project investment management benefits.*

2. **These benefits arise from the introduction of management tools for public investment projects that would allow, first, greater predictability of the execution of investment projects, second, more effective project and contract management.** These are detailed below. The introduction and improvements of these tools are expected to result in greater efficiency of the public investment system, that represent – very conservatively – 0.1 percent of the total value of the investment portfolio, equivalent to MXN 196 million.
3. **Greater predictability of the execution of investment projects.** This will be achieved through measures such as: medium-term budget planning to increase predictability of funding beyond the budget year; introduction of budget allocation and commitments in real time, allowing for improved in-year implementing planning; incorporation of procurement data at the contract level from planning to completion, providing more reliable information on the status of project execution; visualization of statements of payments to suppliers, strengthening budget execution.
4. **More effective project and contract management.** The PIM system is currently an isolated solution that is not interconnected to PFM systems. The Project will facilitate interconnection, enabling the features highlighted above, creating an integrated platform of information around the PIM cycle, that will support visualization of project data and more effective monitoring of investment projects. This will contribute to administrative efficiencies, support project and contract management and facilitate management of the full investment portfolio. Project management tools will support timely remedy actions along the implementation cycle of the project: budget planning, budget execution (procurement and payments), and reporting of financial and physical progress. It will also facilitate application of controls on physical progress, strengthen project and contract management and facilitate accountability (oversight and citizen feedback for greater performance of public investments). This support efficiency and more strategic use of personnel and overall quality in the decision-making process.

### *Cost overrun savings benefits.*

5. **Improvements in project design and project management will reduce cost and time overruns that adversely impact on project costs and the timing of benefits reducing net financial and economic returns.** We assume that cost overruns have the opportunity cost associated to the social discount rate (10 percent). Current cost overrun of the investment portfolio represents about US\$195 million. The project is expected to generate savings of 10 percent in cost reductions due to better costing and project management techniques.



### Supply agreement funds benefits.

6. **Application of idle funds improves cash flow management and reduces borrowing requirements.** Treasury Supply Agreements (*Acuerdos de Ministración de Fondos*) are means by which SHCP authorizes the use of resources to meet contingencies and urgent operating expenses from the federal ministries. These funds are locked and remain idle in the Treasury for a significant period of the year. They are managed by the institutions as an extra-budgetary expense. They are not routed through the IFMIS system. Regularization of the use of these funds mostly occurs by the end of the year. Supply agreements are defined every year, by their nature the total value cannot be predetermined. Effective management of assets and liabilities requires that these public funds are applied effectively. Significant income could be generated from optimized overnight deposits of cash balances. In this case, in a very conservative estimate, it is assumed that these funds could be invested daily for 90 days using a TIIE (182 days) as the opportunity cost. MX 2815 million pesos is the base value for supply agreements in 2019, the lowest amount over the last three years.

### Economic Analysis

#### Net Present Value of Benefits

Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Investment costs	-7.47	-33.79	-35.89	-24.96	-7.90										
Maintenance costs						-3.51	-3.51	-3.51	-3.51	-3.51	-3.51	-3.51	-3.51	-3.51	-3.51
Improvements in project management benefits					11.41	11.71	12.01	12.33	12.65	12.98	13.31	13.66	14.02	14.38	14.75
Cost overrun savings benefits					15.91	16.33	16.75	17.19	17.63	18.09	18.56	19.04	19.54	20.05	20.57
Supply agreement funds benefits					2.92	3.00	3.08	3.16	3.24	3.32	3.41	3.50	3.59	3.68	3.78
Free Cash Flow	-7.47	-33.79	-35.89	-24.96	22.35	27.52	28.33	29.15	30.00	30.87	31.77	32.69	33.63	34.59	35.58

NPV	57.61
IRR	19.12%

7. **The economic analysis based on these three benefits suggests that the project is feasible with a Net Present Value (NPV) in real terms of US\$ 57.61 million and an Internal Rate of Return (IRR) of 19.12 percent.** The analysis is based on the following assumptions: (i) an investment horizon of 15 years, including 10 years of operation before the system undergoes a major upgrading process; (ii) a Social Discount Rate of 10 percent (current EOCC for Mexico); (iii) an exchange rate of MXN 19.07 Pesos to USD as of November 20, 2019; and (iv) a 2.6 percent expected economic growth for the country, taken as the annual increase of the investment portfolio and value of supply agreements. Costs associated with the project implementation include US\$110 million investment costs and US\$14.75 million software and hardware maintenance costs, which represents the 20 percent<sup>8</sup> of its value throughout the life of the Project.
8. **A sensitivity analysis for cost and benefit parameters suggests that the project is still viable within a range of ±15 percent for costs and benefits.** The results are presented below. In addition to the economic analysis, a financial analysis was also conducted using the same structure of cost and benefits but replacing the EOCC by 6.7 percent,

<sup>8</sup> Modelo de Análisis Costos-Beneficio para Sistemas Integrados de Administración Financiera, Documento de Debate (IDB-DP-194), Inter-American Development Bank, 2012





this year's government's weighted average borrowing cost, which is the highest of the last five years. The resulting net present value of the Project is US\$ 96.04 million.

	<b>BASELINE</b>	<b>COST + 15%</b>	<b>COST - 15%</b>	<b>BENEFIT + 15%</b>	<b>BENEFIT - 15%</b>
<b>NPV</b>	\$57.61	\$41.60	\$73.62	\$82.26	\$32.96
<b>IRR</b>	19.12%	16.04%	22.89%	22.35%	15.55%

***Benefits that are not quantified***

9. The Project will also generate benefits that are not quantified, through improvements in allocational and operational efficiency in public spending. These include: (i) introduction of profitability indicators to investment projects greater of MXN 50 million pesos; (ii) introduction of resilient methodologies for infrastructure projects; (iii) introduction of budget controls in terms of ceilings; (iii) long term budget planning; (iv) management of budget availability; (v) interconnection with the procurement and debt systems; (vi) routing all expenditure transactions thru the IFMIS systems, and management of arrears; (vii) better management of the payroll through the introduction of a standardized systems that will provide greater levels of control and integrity; and (viii) consolidation of different sources of idle cash balances and cash management strategies.