Document of
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Report No: 64652-MX

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROGRAM DOCUMENT

FOR A PROPOSED LOAN

IN THE AMOUNT OF US$300,751,879.70

TO THE

UNITED MEXICAN STATES

FOR A

FISCAL RISK MANAGEMENT DEVELOPMENT POLICY LOAN

FEBRUARY 14, 2012

Poverty Reduction and Economic Management Department
Colombia and Mexico Country Management Unit
Latin America and the Caribbean Region

CURRENCY EQUIVALENTS
(Exchange Rate Effective February 6, 2012)

Currency Unit	=	Mexican Peso
MX$1.00	=	US$0.07885
US$1	=	MX$12.6426

FISCAL YEAR
January 1 – December 31

ABBREVIATIONS AND ACRONYMS

BANSEFI	*Banco del Ahorro Nacional y Servicios Financieros*
CAT	Catastrophic
CFE	*Comisión Federal de Electricidad*
CGPE	*Criterios General de Política Económica* (Economic Policy General Criteria)
CNBV	*Comisión Nacional Bancaria y de Valores* (National Banking and Securities Commission)
COFEMER	*Comisión Federal de Mejora Regulatoria* (Federal Commission for Regulatory Improvement)
CPS	World Bank Group's Country Partnership Strategy
CY	Calendar Year
DB	Development Bank
DPL	Development Policy Loan
FCL	Flexible Credit Line
FONDEN	*Fondo de Desastres Naturales* (National Fund for Natural Disasters)
FOPREDEN	*Fondo para la Prevención de Desastres Naturales* (National Fund for the Prevention of Natural Disasters)
FRL	Fiscal Responsibility Law
FSAP	Financial Sector Assessment Program
FY	Fiscal Year
GDP	Gross Domestic Product
IBRD	International Bank of Reconstruction and Development
IDB	Inter-American Development Bank
IFMIS	Integrated Financial Management Information System
IMF	International Monetary Fund
IMSS	*Instituto Mexicano del Seguro Social*
ISO	International Organization for Standardization
ISSSTE	*Instituto de Seguridad Social y Servicios de los Trabajadores del Estado (*Social Security Institute for Government Employees*)*
LFPRH	*Ley Federal de Presupuesto y Responsabilidad Hacendaria* (Federal Budget and Fiscal Responsibility Law)
MX	Mexico
OECD	Organization for Economic Co-operation and Development
PEF	*Presupuesto de Egresos Federales* (Federal Expenditure Budget)
PEMEX	*Petróleos Mexicanos* (Mexican Oil Company)
PFM	Public Financial Management

PSBR	Public Sector Borrowing Requirements
PSIA	Poverty and Social Impact Analysis
SEP	*Secretaría de Educación Publica* (Ministry of Public Education)
SGDP	Subnational Gross Domestic Product
SHCP	*Secretaría de Hacienda y Crédito Público* (Ministry of Finance and Public Credit)
SOFOLES	*Sociedades Financieras de Objeto Limitado* (Limited Purpose Financing Society)
STA	Single Treasury Account
SPEI	*Sistema de Pagos Electrónicos Interbancarios* (Electronic Interbank Payment System)
TA	Technical Assistance
TESOFE	*Tesorería de la Federación* (Federal Treasury)
USD	United States Dollar
WGBI	World Government Bond Index

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MEXICO
FISCAL RISK MANAGEMENT DEVELOPMENT POLICY LOAN

Table of Contents

LOAN AND PROGRAM SUMMARY

The United Mexican States
Fiscal Risk Management
Development Policy Loan

Borrower	The United Mexican States
Implementing Agency	Ministry of Finance and Public Credit
Financing Data	US$300,751,879.70 IBRD Flexible Loan with a variable spread, commitment linked, bullet repayment on August 15, 2029, all conversion options (currency, interest rate and Caps/Collars), and February 15 and August 15 as payment dates.
Operation Type	Single Tranche Development Policy Loan
Main Policy Areas	Federal and subnational fiscal and debt management, budget stability and transparency, and natural disaster risk management.
Key Outcome Indicators (by December, 2012)	*Budget Stability and Transparency* • Increase in number of active Cetes Directo accounts • Increase in amount of resources invested through Cetes Directo • Increase in annual number of payments made from the Single Treasury Account *Natural Disaster Risk Management* • Reduce average time between the request and allocation of FONDEN (*Fondo de Desastres Naturales*) reconstruction funds • Increase number of reconstruction programs closed within each fiscal year as a percent of total open programs. *Subnational Debt Management* • Increase in registered debt as a percent of total debt
Program Development Objective(s) and Contribution to CPS	The Overall Program Development Objective is to support Mexico's fiscal risk management policies so as to foster the efficient and effective implementation of public expenditure programs. This will be achieved by: (i) supporting Mexico's integrated risk management approach; (ii) promoting the institutionalization of risk mitigation policies; and (iii) highlighting critical elements of Mexico's risk management framework.

	The World Bank Group's Country Partnership Strategy (CPS) and the CPS Progress Report were presented to the Board in March 2008 (Report No. 42846-MX) and February 2010 (Report No. 52776-MX), respectively. The proposed Development Policy Loan (DPL) is in line with the CPS Progress Report, which envisioned an active program of financial services during fiscal year 2012 in response to the Government of Mexico's request. Fiscal risk mitigation is a key theme of the Government's program and the CPS while the World Bank has conducted extensive analytical work to assist the policy dialogue in this area. Moreover, the proposed operation is part of a larger programmatic engagement in fiscal risk management - which includes knowledge services, convening services, development policy lending and, investment lending.
Risks and Risk Mitigation	A sharp weakening in the economic recovery of the United States would pose downside risks to Mexico's growth due to the high degree of integration, and could affect some program progress. Likewise, sovereign debt and banking sector problems in Europe could increase global risk aversion, and lead to higher volatility in Mexico's financial markets. However, Mexico's strong fiscal and monetary policy frameworks and track record reinforce macroeconomic stability and enhance the economy's resilience to external shocks. Mexico's public debt structure and international reserve accumulation limit the impact of heightened global risk aversion, though the increased foreign investor participation in domestic bond markets warrants close monitoring of international capital flows. This DPL further strengthens the Government's ability to address fiscal risks in general, but in particular attempts to mitigate the impact of short term fiscal risks on the budget. Limited control over the legislative agenda and the upcoming presidential elections –July 2012– may lead to slower progress on the advancement of structural reforms. The Government has begun to rely on actions that do not require legislative approval, such as a number of those supported in this operation. A deterioration in Mexico's security situation could lead to some backtracking in program outcomes, and impact fiscal consolidation, investment and economic growth. Increased competition on the control of drug flows has led to a rise in violence over the past few years. The Government is strengthening and reorganizing its security forces to contain and reduce the impact of organized crime in Mexico.
Operation ID	P123505

MEXICO FISCAL RISK MANAGEMENT DEVELOPMENT POLICY LOAN

I. INTRODUCTION

1. **The Government of Mexico has requested that the World Bank support the strengthening of its Fiscal Risk Management Strategy through a Development Policy Loan (DPL) for US$300,751,879.70.** This document details recent policy actions undertaken in order to reinforce the Government's fiscal risk management framework and the support the Bank has provided throughout the different stages of strategy design.

2. **Limited fiscal space and significant potential revenue losses or unexpected expenditure outlays require careful identification and categorization of fiscal risks in Mexico.** The identification of a sovereign's fiscal risks facilitates the implementation of corresponding risk management measures, thereby safeguarding programmed public expenditure programs. Revenue and expenditure volatility mitigation is important due to the effects budget fluctuations and unplanned deficits can have on the macroeconomic environment, market confidence, and ultimately creditworthiness of the country.

3. **This DPL supports the Government's effort to minimize short-term fiscal risks and therefore reduce disruptive adjustments during budget implementation.** In the recently published *Criterios Generales de Política Económica*, the Government distinguishes between short-term fiscal risks (largely associated with macroeconomic shocks, though also with unexpected expenditure outlays related to natural disasters and crises in the financial sector) and long-term fiscal pressures (aging population and related higher pension and health costs). Short-term fiscal risks generated by unexpected spending pressures or revenue losses may trigger highly disruptive and costly ad hoc adjustments during annual budget implementation. The DPL presents and evaluates progress in Mexico's fiscal risk management strategy in three key policy areas and suggests ways for improving and institutionalizing some of the measures. The first policy area focuses on budget stability and transparency, which is a key element for any fiscal risk management strategy. The remaining policy areas included in the DPL address two main sources of short-term fiscal risks in the country: natural disaster risk management, and subnational debt management. The loan highlights recent developments in each of the policy areas and aims at strengthening the risk framework in its entirety.

4. **Fiscal risk management policies have enhanced Mexico's resilience to shocks, reduced public finance volatility, and enabled the Government to maintain planned programs to address economic and social priorities.** Mexico's integrated fiscal risk mitigation framework has evolved over the years and includes mechanisms to retain, mitigate and transfer risk related to contingent as well as direct government liabilities. An integrated approach allows for the establishment of a natural hedge between government assets and liabilities, determination of economy-wide fiscal risks priorities, and improvement of institutional and technical capacity. The Mexico's fiscal risk mitigation framework is an evolving policy dialogue framework not yet spelled out in a particular document.

5. **The proposed DPL is part of a complementary package of Bank knowledge and financial services supporting fiscal risk management in Mexico.** The operation is fully consistent with the Bank's new business model in Mexico, which emphasizes a strategic and integrated client engagement in support of selected development outcomes through three main lines of business; including financial, knowledge and convening services.

6. **World Bank engagement in Mexico on the fiscal risk management objectives supported by this operation has been strong during the last years.** Table 1, Bank Engagement in Fiscal Risk Management, displays several financial, knowledge and convening services, which the Bank supported over the last decade in the three policy areas. The following examples describe some of the most notable Bank engagement in the policy areas (see Section IV for a comprehensive overview):

(a) Budget Stability and Transparency

- **Results-based management:** The Bank collaborated with the Government to improve Federal Public Administration management, set in motion a new framework for result-based budgeting and produce high quality information on performance.
- **Integrated financial management information system:** The Bank provided fee-based advisory services to strengthen the integrated financial management information system (IFMIS).

(b) Natural Disaster Risk Management

- **Catastrophe Bonds:** Mexico was the first country to use the MultiCat program, a flexible catastrophe bond series developed by the Bank that allows for the pooling of multiple perils, regions and countries.
- **Proposed DPL on Social Resilience to Climate Change:** The Government has requested a *Strengthening Social Resilience to Climate Change* DPL aimed at reducing the impact of climate change and, in turn, natural disasters on the poor.

(c) Subnational Debt Management

- **Accounting Harmonization:** The Bank has provided flexible, demand-based services to support the Government's accounting reform. In addition, a report on Government accounting harmonization in Mexico was prepared in 2010.
- **Fiscal Federalism:** An earlier Bank analysis on fiscal federalism in Mexico is currently being followed up and updated by a study on fiscal federalism in Latin America.

7. **The DPL fits into the World Bank Group's Country Partnership Strategy (CPS), Mexico's presidency of the G20 and the Government's request for financial services in fiscal year 2012.** The 2012 G20 agenda will continue to be heavily influenced by the current uncertain economic and financial environment, in particular related to the European debt crisis. Fiscal risk management, in particular related to macroeconomic risks, the international monetary system and financial sector regulation, will remain high on the agenda.

Table 1: Bank Engagement in Fiscal Risk Management in Mexico, 2000-2012

	2000 – 2006 – 2012
Financial Services	Finance and Growth DPL
	Economic Policies in response to the crisis DPL
	Strengthening Business Environment DPL
	MX Fiscal Risk Management DPL **
	Results Based Management and Budgeting TAL
	Natural Disaster Management Program
	Building Social Resiliency to Climate Change DPL
	Weather Derivative for Drought Insurance
KnowledgeServices	Policy Notes: Creating the Foundations for Equitable Growth
	Policy Notes
	MX Public Expenditure Review
	MX Treasury's Office Reform
	Royalties Reform for Mining Sector
	Accounting harmonization and advisory work on accounting standards
	Strengthening Cash Management and Control System
	IDF on Strengthening of Internal controls and Cash Management
	Programmatic Knowledge Advisory Services in Public Sector
	Rapid Diagnostic Tool for budgeting and performance management
	Global Catastrophe Mutual Bond Risk Modeling For Mexico TA
	Mexico Subnational Water and Sanitation and Disaster Risk Management in Oaxaca
	FSAP
	FSAP Update
	FSAP Update
	Broadening Access to Financial Services for the Urban Unbanked
	TA to strenghten financial crsis preparedness
	Mexico State Level Fiscal Policy Review
	State Level -Improving Fiscal Transparency and Administrative Performance
	IDF –Fiscal Transparency (Aguascalientes)
	Mexico State-Level PER
	Fiscal Federalism Study
	Southern States Dvlpt Strategy
	Mexico Southern States Sustainable Development
Convening and Coordinat. Services	International Conference on Results Based Budgeting
	Regional Treasury Conference
	Integration of the Regional Treasury Network
	Technical Coop. Mx-Canada Performance Informed Budgeting
	Support to improve pub. sector efficiency and performance mgt
	Tech. coop. Mx-Spain Tax administration at subnational level
	Performance informed budgeting and management at the subnational level
	CAT bond
	Multi CAT Bond

II. COUNTRY CONTEXT

Recent Economic Developments

8. **The Mexican economy rapidly recovered from the impact of the global economic crisis.** After a severe contraction in late 2008 and early 2009, resurgence in demand for Mexican manufactured exports led to a sharp rebound of economic activity. By the end of 2010 output returned to its pre-crisis level, with an upturn in domestic demand sustaining growth of 5.4 percent for the year, and supporting convergence to the country's potential output.

9. **Strong links between the Mexican and U.S. manufacturing industry contributed to a surge in external trade.** With almost 80 percent of trade directed to the U.S., a recovery of economic activity and, in particular, of industrial production in the U.S. led to a sharp rebound of Mexican exports. Manufactured exports increased by 30 percent in 2010, surpassing their pre-crisis level, and continued to expand at a healthy annual rate of 14 percent in 2011. The rapid expansion of exports led to an increase of Mexico's market share in the U.S. to over 12 percent from 10.5 percent prior to the crisis. Recent external competitiveness gains are the result of moderate wage growth, a relatively weaker peso and higher global transport costs.

10. **The recovery spurred a moderate increase in employment.** Though the Mexican labor market is recovering from the trough, unemployment remains above pre-crisis levels. The unemployment rate, which reached a record high of 6.4 percent in September 2009, has remained over 5 percent over the last two years, two percent above the average pre-crisis level. After net job destruction in 2009, approximately 500 thousand formal sector jobs have been created annually leaving an equal number of net labor force entrants to look for other alternatives in self- or informal sector employment. Over the past four years, real wages in the formal sector have languished, compared to an annual average increase of one percent previous to the crisis.

11. **After more than a decade of rapid growth, outward migration and remittances have stagnated.** Recent population census data show that the number of Mexican migrants in the U.S. remained at 12 million between 2007 and 2010, compared to an estimated average annual net migration of 500 thousand in the preceding years. This is likely due to tighter migration controls and the downturn of U.S. economic activity, in particular in the construction sector. As a result, annual remittance inflows of US$22.7 billion in 2011 are still 13 percent below their end-2007 peak. The impact of the slump in remittances in terms of purchasing power, poverty relief and domestic consumption was somewhat mitigated by currency depreciation in 2008-2009 and more recently in the second half of 2011.

12. **Credit growth has recovered and is now in line with nominal Gross Domestic Product (GDP) growth.** Consumer and corporate credit have expanded at an annual nominal rate of about 12 percent. Housing finance has trailed behind, with 10 percent annual nominal growth, partly attributed to the demise of the specialized housing non-bank financial intermediaries (*Sociedades Financieras de Objeto Limitado* - SOFOLES). Commercial banks non-performing loan ratio remains at 2.7 percent and is adequately provisioned for. Provisioning levels (180 percent) are significantly higher than in the rest of the region

Chart 1: Mexico Selected Macroeconomic Charts

Fig.1-Aggregate demand (2008:II=100)

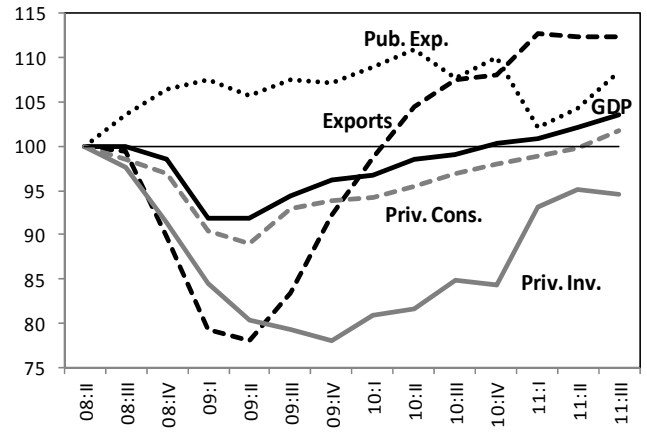


Fig.2- Labor market indicators

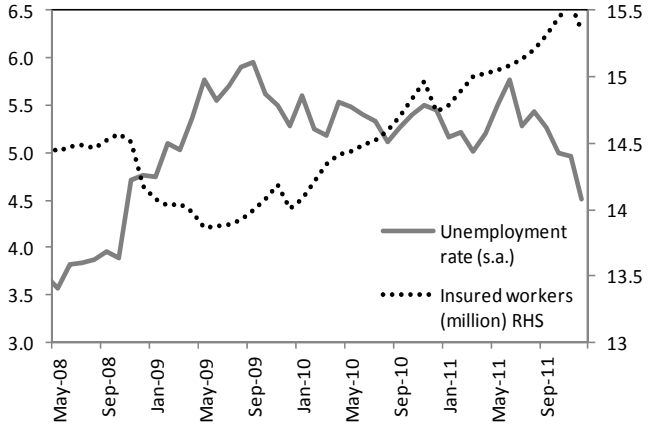


Fig.3- Inflation rate (%)

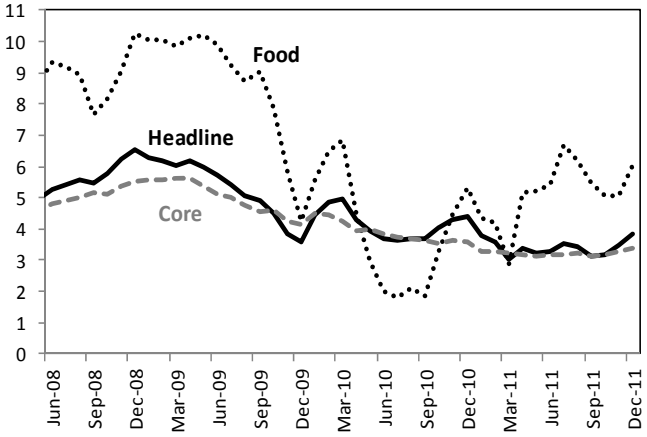


Fig.4- International Reserves (US$ billions)

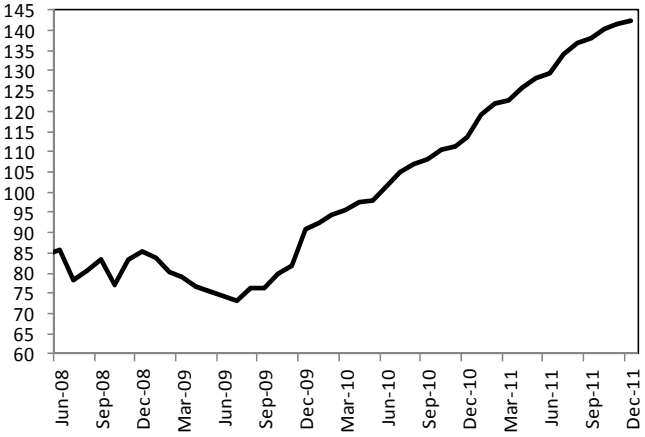


Fig.5- Exchange rate (June 2008=100)

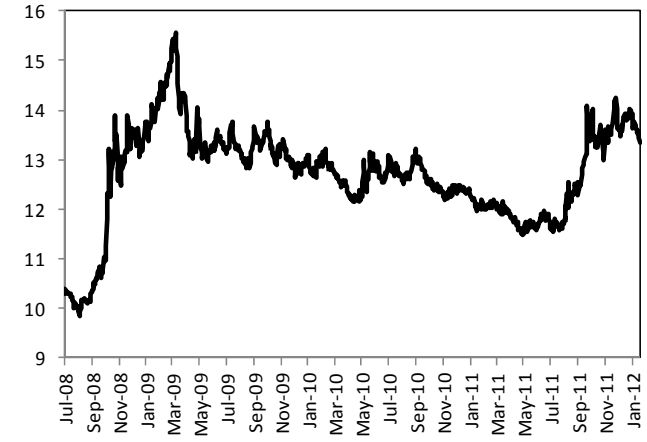
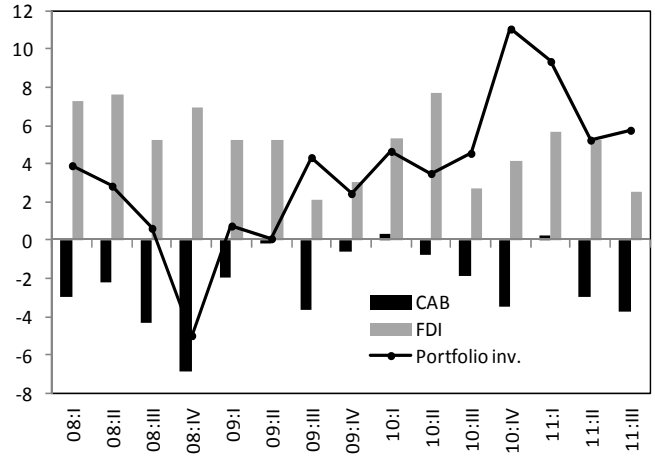


Fig.6 External Accounts (US$ billions)



13. **The authorities are gradually withdrawing the fiscal stimulus to reassure markets of Mexico's fiscal sustainability.** Fiscal discipline and strong fiscal policy frameworks, including the establishment of stabilization funds and the acquisition of oil price hedges, provided the authorities with some space to conduct countercyclical policy during the height of the crisis without jeopardizing long-term sustainability. Fiscal stimulus in 2009 was mainly financed by non-recurrent revenue that was no longer available in 2010, when the authorities initiated a program of fiscal consolidation by increasing taxes and containing public expenditures. To moderate the withdrawal of fiscal support a modest budget deficit was allowed in 2010, 2011 and 2012, with a return to a balanced budget as stipulated in Mexico's fiscal responsibility law envisaged for 2013.[1]

14. **Monetary policy remains accommodative after substantial easing in 2009.** The sharp contraction of economic activity in 2009 created a particularly large output gap, suggesting that the economy may, for the medium-term, expand moderately above its potential without generating inflation pressures. Consumer price inflation has trended down for the major part of 2011, and is currently at 3.8 percent within the authorities' target interval of 3 plus/minus 1 percent.

15. **International reserve accumulation and a new International Monetary Fund (IMF) Flexible Credit Line (FCL) strengthen Mexico's insurance against external shocks.** The buildup of international reserves stems from net public sector foreign exchange receipts, due to elevated oil prices, and the introduction of a rules based mechanism that enables market participants to sell foreign exchange to the Central Bank. Gross international reserves now stand at US$142 billion, an increase of US$29 billion over the last twelve months. A new FCL was contracted with the IMF in January 2011 for a two-year period for approximately US$73 billion.

16. **Over the past two years Mexico experienced substantial capital inflows, mainly directed at the domestic government bond market.** Loose global monetary conditions and inclusion of Mexican local currency government bonds in Citibank's World Government Bond Index (WGBI) in October 2010 led to a surge of capital inflows of about US$16 billion in the last half of 2010 and first half of 2011, respectively. However, increased global risk aversion has recently put pressure on asset and currency markets. Mexico's flexible exchange rate and increased financial cushion (reserves and the FCL) should help mitigate the effect of a sudden, sharp reversal in capital flows.

17. **The Mexican authorities recently adjusted their foreign exchange intervention mechanism in response to sharply increased market volatility.** The higher degree of risk aversion on the back of the European sovereign debt and banking sector problems has triggered a sharp depreciation of the peso and increased the volatility of the Mexican peso/US dollar exchange rate. To reduce market volatility, the authorities reintroduced in end-November 2011 a rules-based foreign exchange intervention mechanism that announces the auction of US$400 million on days when the Mexican peso has depreciated by 2 percent or more compared to the

[1] The budget balance targeted in the Fiscal Responsibility Law excludes investments in the oil sector amounting to about 2 percent of GDP annually over the past couple of years. A broader deficit measure like the Public Sector Borrowing Requirements (PSBR) does include these outlays as well as additional adjustments for concepts such as inflation-indexed debt and financial intermediation by development banks.

previous day. At the same time, the authorities suspended the monthly sale of dollar put options through which the Central Bank accumulated additional international reserves. The measure aims at enhancing liquidity conditions in the foreign exchange market and therefore reducing MXN/USD volatility.

18. **Food price inflation and the economic crisis have increased poverty over the past few years.** Total poverty increased from 44.5 to 46.2 percent between 2008 and 2010, according to a new official poverty measure. Approximately a quarter of the poor, 10.4 percent of the total population in 2010, live in extreme poverty. These figures are the result of a new poverty measure based on a multidimensional concept of poverty. Though no historical time series of the new poverty measure exist, the previous income-based poverty measure exhibited a reversal in the declining trend of poverty as of 2008. The initial increase was largely attributed to rising food prices, whereas the recent increase in poverty levels is mainly due to the economic crisis and labor market slack.

Macroeconomic Outlook and Debt Sustainability

19. **Economic growth has moderated but is forecast to remain healthy in 2012.** Economic growth has moderated to about 3.8 percent in 2011. Growth in 2012 is projected to slow to 3.3 percent, and stabilize at 3.5 over the medium-term (see base case scenario Table 2).[2] Despite a slowdown in U.S. growth, external demand will likely remain buoyed by growth in U.S. industrial production and improved Mexican external competitiveness. Domestic demand is expected to remain expansionary and driven by labor market improvements, credit growth and infrastructure investment. Downside risks to growth, associated with a U.S. slowdown and the ongoing problems in Europe, remain significant**.**

20. **A lower case growth scenario may materialize if Mexico's main trading partner falls back into a recession in the near term** (see Box 1). Weaker demand for Mexican exports and a slowdown in investment may lead to a below potential rate of growth in the short term, 2012, of about 2.0 percent. Such a low case scenario also includes a return to the lower bound of Mexico's medium-term potential output growth range at 3.0 percent and impacts the Government's fiscal and debt projections. A greater emphasis on growth-oriented structural reforms is crucial to improve Mexico's medium-term growth potential, which is driven by growth of the labor force and capital accumulation but remains constrained by lack of any significant productivity improvements.

21. **Mexico's security situation continues to impact growth and pose challenges for the authorities.** The growing violence, in particular in northern Mexico, stems from the conflict between drug cartels and among cartels and Mexican security services. The domestic security threat is undermining economic growth and investment, in particular in the areas most impacted by violent crime. As a result, improving public security remains one of the Government's priorities. Increasing resources needed to address the rise in violence could detract from spending on social needs and public investment.

[2] See also IMF Selected Issues (2011).

Box 1

Weakening global growth prospects and increased financial volatility: Impact on Mexico

Extraordinary downward adjustments in the prospects for global economic activity and extremely high global financial market volatility have been observed over the past few months. Since end-July 2011, global markets have suffered major financial turbulence and a flight from risky assets, related to weak economic activity and fiscal problems in the U.S., the sovereign debt crisis in several European countries and associated weakness in the European banking system. The perceived lack of political resolve in both regions significantly increases downside risks to the world economy.

Weakening growth prospects in advanced economies, in particular in the U.S., and global financial market volatility led to rapid adjustment in Mexico's growth prospects and currency valuation. Private sector analysts' average growth estimates[1] for 2011 and 2012 fell from 4.2 and 4.1 percent respectively to 3.8 and 3.4 percent within a period of two months (July-September). The deteriorating outlook and flight to quality led to a depreciation of the peso by 16 percent between end-July and beginning December, reversing the gradual appreciation trend that followed the currency collapse during the 2008-2009 financial crisis.

Rapidly deteriorating domestic growth prospects are due to the strong links between Mexican industry and the U.S. economy, the market for almost 80 percent of Mexican manufactured exports. Weakening external demand also has an important impact on the service sector as the share of services directly linked to manufacturing in Mexico is high by international standards (Organization for Economic Co-operation and Development -OECD 2011). An external demand shock generated by the U.S. falling back into recession would create a substantial short-term impact on economic growth in Mexico.

An abrupt decline in commodity prices and of oil in particular, would have a negative impact on economic activity and the trade balance, though lower oil production has reduced net oil exports to less than one percent of GDP thereby significantly diminishing the terms of trade effect of oil price fluctuations. In terms of public finances, a reduction of the oil price by US$10 per barrel reduces public sector revenue by 0.3 percent of GDP.

The recent sharp currency depreciation suggests a reversal in capital flows. In the year prior to the current instability (July 2010-June 2011), investment by foreign residents in peso-denominated government bonds amounted to US$32 billion, while international reserves increased by US$28 billion. The policy response to what has been perceived as a disorderly depreciation and excess volatility of the peso dollar exchange rate has been to intervene in the foreign exchange market through a rules based mechanism that has been applied earlier with success (see Paragraph 17). The weaker peso has led to some easing of monetary conditions, however concerns about a pass-through to domestic prices are relatively muted in the current environment of low inflation and weakening economic activity.

[1] According to the monthly survey among private sector analysts by Banco de Mexico.

22. **Uncertainty over the global outlook and a more moderate domestic growth outlook will continue to restrain price pressures.** Annual headline consumer price inflation, 3.8 percent by the end of 2011, maintains a downward trend, approaching Bank of Mexico's medium term target. A deceleration in the economic recovery is slowing the closure of the output gap, suggesting that monetary conditions can remain relatively accommodative.

23. **The current account deficit has widened moderately with the upturn in domestic demand.** Mexico's current account deficit will likely widen to around 0.9 percent of GDP in 2011, and be financed via FDI investment, projected at US$20 billion. Export growth, projected at approximately 18 percent in 2011, will likely moderate over the medium term, and average approximately 9 percent annually, while the current account deficit may widen but remain financeable by FDI. Remittances are projected to amount to $22.7 billion in 2011 and may increase modestly if the economic environment in the U.S. improves.

24. **The Government remains on track with its fiscal consolidation plan**. The fiscal deficit, in terms of the Public Sector Borrowing Requirements (PSBR), is expected to narrow to 2.9 percent of GDP in 2011 and the Government plans on a further deficit reduction to 2.8 percent in 2012. Stronger oil related revenues are compensating for slightly weaker tax revenue. Similar to 2010 and 2011, the Government has removed the caps on the stabilization funds for 2012.

25. **Improvements in Mexico's debt structure mitigate the impact of shocks on public finances.** The Government's debt management strategy continues to favor the local debt market, and use external financing in a complementary manner. Due to ongoing uncertainty and volatility in international financial markets, Mexico will continue to meet the Government's financing needs with the lowest cost and risk combination of internal and external debt, while strengthening local debt markets and maintaining a diverse access to credit.

26. **A return to a balanced budget[3] as of 2013 would ensure a sustainable public debt path.** The public sector debt-to-GDP ratio increased over the past few years mainly due to the partial inclusion in 2008 of public sector workers' pension liabilities in public debt following the ISSSTE (*Instituto de Seguridad Social al Servicios de los Trabajadores del Estado)*-pension reform, the fiscal stimulus program and sharp drop in economic activity in 2009. Nevertheless, Mexico maintains a moderate net public debt-to-GDP ratio at about 37 percent and the Government's medium-term fiscal framework foresees a 2 percent reduction in the debt-to-GDP ratio over the next five years.

27. **The main risk to the public debt-to-GDP ratio is the uncertainty surrounding the GDP growth rate.** The Government's medium-term fiscal projections show a declining debt-to-GDP path based on a diminishing PSBR from 2.3 percent of GDP in 2013 to 2.0 percent in 2017 and annual economic growth of 3.9 percent. Net debt-to-GDP diminishes under these assumptions from 36.3 percent in 2013 to 34.6 percent in 2017. The base case scenario presented in Table 2 projects annual medium-term growth of 3.5 percent, which maintains a downward debt-to-GDP path towards a ratio of 35.4 percent by 2017, whereas a low case scenario of 3 percent annual growth would roughly stabilize the debt-to-GDP ratio over the medium term.

[3] As stipulated by the Fiscal Responsibility Law (see footnote 1)

Table 2: Main macroeconomic indicators (2007-2014), base case scenario

					Est.	Projection		
Indicator	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
National Accounts	**annual real percent change, unless noted**							
Real GDP	3.3%	1.2%	-6.1%	5.4%	3.8%	3.3%	3.5%	3.5%
Consumption	3.9%	1.6%	-5.7%	4.7%	4.2%	3.2%	3.7%	3.4%
Gross Domestic Investment	3.3%	3.0%	-15.9%	6.8%	6.7%	4.9%	4.8%	4.9%
Gross Domestic Investment (% of GDP)	26.5%	26.9%	23.5%	25.0%	25.7%	25.9%	25.9%	26.2%
External Accounts	**in US$ billions, unless noted**							
Current Account Balance	-8.9	-16.3	-6.4	-5.6	-10.2	-15.2	-18.7	-19.5
Current Account Balance (% of GDP)	-0.9%	-1.5%	-0.7%	-0.5%	-0.9%	-1.4%	-1.5%	-1.5%
Trade Balance	-10.1	-17.3	-4.7	-3.0	-3.1	-6.2	-8.3	-9.2
Merchandise Exports Current	271.9	291.3	229.7	298.5	353.7	384.9	416.5	444.8
Merchandise Exports Current (annual growth)	8.8%	7.2%	-21.2%	29.9%	18.5%	8.8%	8.2%	6.8%
Oil Exports	43.0	50.6	30.8	41.7	55.0	52.7	51.4	49.7
Non Oil Exports	228.9	240.7	198.9	256.8	298.7	332.2	365.0	395.1
Merchandise Imports Current	281.9	308.6	234.4	301.5	356.8	391.1	424.7	454.0
Merchandise Imports Current (annual growth)	10.1%	9.5%	-24.0%	28.6%	18.3%	9.6%	8.6%	6.9%
Transfers, net	26.4	25.5	21.5	21.5	22.7	24.4	25.6	26.9
Factor and non factor services , net	-25.2	-24.5	-23.2	-24.1	-29.8	-33.4	-36.1	-37.2
Direct Investment	29.7	26.3	15.3	18.7	19.0	20.5	21.3	22.2
Portfolio Investment	7.3	2.4	7.6	23.8	28.0	18.0	15.0	15.0
Gross Reserves	87.2	95.3	99.9	120.6	142.5	149.3	156.3	163.3
Public Sector	**in percent of GDP, unless noted**							
Total Revenues	22.0%	23.5%	23.7%	22.7%	21.7%	21.6%	21.3%	21.2%
Oil Revenues	7.8%	8.7%	7.4%	7.4%	7.4%	7.6%	7.4%	7.3%
Non Oil Revenues	14.2%	14.8%	16.4%	15.3%	14.3%	14.1%	13.9%	13.9%
Tax	9.3%	9.9%	9.5%	10.1%	9.9%	9.8%	9.7%	9.7%
Non tax	1.4%	1.2%	3.2%	1.4%	0.7%	0.5%	0.5%	0.5%
Public Enterprises	3.5%	3.7%	3.7%	3.8%	3.7%	3.7%	3.7%	3.7%
Public Expenditure (%)	23.0%	25.1%	26.3%	26.1%	24.6%	24.4%	23.6%	23.4%
Current Expenditure	18.7%	19.7%	21.2%	21.1%	20.0%	20.3%	19.8%	19.6%
Capital Expenditure	4.3%	5.4%	5.1%	5.1%	4.6%	4.1%	3.8%	3.8%
PSBR Balance (% GDP)	-1.0%	-1.6%	-2.6%	-3.5%	-2.9%	-2.8%	-2.3%	-2.2%
Net Public Sector Debt (% GDP)	29.3%	33.4%	36.9%	36.8%	36.7%	36.7%	36.7%	36.4%
Prices								
Inflation (e.o.p.) (%)	3.8%	6.5%	3.6%	4.4%	3.8%	3.1%	3.0%	3.0%
Nominal Exchange Rate (average- pesos/dll)	10.9	11.1	13.5	12.6	12.4	13.5	13.0	13.2
Oil Price (US$ per barrel)	61.6	84.4	57.4	72.3	100	97.7	95.5	92.2

Source: INEGI, Banxico, SHCP, and WB estimates.

28. **Despite significant foreign ownership, Mexico's financial sector remains relatively insulated from problems in Europe.** Strong capitalization levels and prudential policies implemented over the last few years have strengthened the sector's vulnerability to shocks. Though foreign ownership is significant in the banking sector and ring fencing measures are

difficult to implement, recent policies including tighter limits on dividend distribution and related-party lending should limit contagion from the European banking sector. However, a sovereign default and/or ongoing instability in European debt markets would reinforce global risk aversion, intensify stock market volatility, heighten capital outflows and tighten domestic credit growth. Furthermore, Mexican institutional investors (pension, mutual and insurance funds) could experience asset losses, which could in turn generate domestic market instability.

29. **Notwithstanding the significant challenges posed by the current global economic climate, Mexico's macroeconomic policy framework is considered adequate for the purposes of the proposed Development Policy Loan**.

III. THE GOVERNMENT'S PROGRAM

30. **The strengthening of fiscal sustainability through revenue and expenditure volatility mitigation and tax revenue strengthening has been a long standing objective in Mexico.** Despite the Government's sustained effort to strengthen non-oil tax revenue, Mexico maintains a low level of tax to GDP constraining fiscal space. Low tax collection, significant social needs and the limitations imposed by adherence to the balanced budget rule, have led the Government to implement a number of measures that mitigate public finance volatility.

31. **One of the objectives of this administration is to modernize all levels of government budget preparation and execution, while improving the efficiency and transparency of public sector accounts.** Greater transparency facilitates the proper identification of fiscal risks and is the first step toward retaining, transferring or mitigating them. While the administration has focused substantially on public access to information, they also seek to promote accountability and reduce corruption. The Government's focus on transparency involves the improvement of public expenditure efficiency through results based budgeting, harmonization of accounting standards between the three levels of Government, and the ongoing modernization of Mexican Treasury through the implementation of a Single Treasury Account (STA). While adoption of the STA serves to enhance budget stability and transparency, it also supports the Government's program of advancing access to finance to a large segment of the Mexican population. The electronic payment through the STA of government payroll, pensions and cash-transfer programs is supporting the access to formal financial sector products and services to larger segments of the population.

32. **In an effort to further improve fiscal transparency the Government included for the first time an extended presentation on fiscal risks in the 2012 budget CGPE (Criterios Generales de Política Económica).** According to the section, public finances are vulnerable to the following fiscal risks: macroeconomic short term risks (GDP growth, price of oil, oil production, and interest rate and exchange rate fluctuations), longer term health and pensions costs, development bank portfolios, risks associated with the *Institución para la Protección al Ahorro Bancario* (IPAB – Mexico's deposit insurance system), state-owned entities liabilities and natural disaster costs. According to a sensitivity chart on 2012 revenue and expenditure flows, macroeconomic variables, in particular oil production, oil price and GDP growth variability have the largest impact on fiscal variables. Unexpected outlays, related to natural

disasters or epidemics can also place a heavy burden on the budget. The section includes a discussion on mitigation measures undertaken in each area and information on remaining challenges.

33. **The Government continues to work to strengthen fiscal and debt sustainability and transparency at the national and subnational level.** From the onset of the current administration's term the Government has promoted the harmonization of government accounting standards and practices between all levels of government. The full implementation by end 2012 of the General Law on Government Accounting adopted in 2007 should improve the compilation and dissemination of public finance statistics, especially for states and municipalities. The Government also streamlined and rationalized the federal transfer system providing additional incentives for local revenue generation. More recently, the Government updated bank provisioning rules for subnational borrowing in order to enhance sound fiscal and financial practices by both lenders and borrowers.

34. **Progress on the Government's debt management strategy, aimed at deepening local debt markets, lowering costs and broadening the investor base, has resumed following the global crisis.** Debt managers have obtained most of the Federal government's financing needs in the local debt market, supporting the deepening and lengthening of the yield curve, while successfully securing financing for external debt maturing in 2012. The use of syndication in the Government's debt strategy has promoted liquidity in the bond market, accelerated the establishment of domestic benchmark bonds, expanded the investor base, and boosted eligibility in a number of fixed income indices. As a result, in 2010 Mexico became the first Latin American country to be incorporated in Citigroup's World Government Bond Index (WGBI), which with the recent launching of Cetes Directo, an electronic retail distribution system, has broadened the investor base, and furthered the development of the Mexican financial system.

35. **In 2010 the Government announced an integral strategy built on an existing framework for dealing with natural disasters.** The strategy includes a number of reforms largely initiated due to the elevated natural disaster costs incurred in 2010, and continues to monitor and improve on risk mitigation strategies in order to reduce the impact of natural disasters. In order to cope with the atypical destruction in 2010, the Government provided an additional 20 billion Mexican pesos to the Natural Disaster Fund (FONDEN), and improved the rules on disbursements. To help States with disaster financing, the Government created a reconstruction Fund, to provide concessional financing and complement FONDEN resources. Lastly, the Government purchased insurance against natural disasters and formulated a sector specific plan to insure public infrastructure.

Consultative and participatory processes in Mexico's economic policy formulation

36. **Mexico's multi-branch Government and competitive political system provide the background for ample discussion on government proposals.** The measures within the budget package are subject to a calendar preparation (April-August), presentation (early September) and eventual approval by Congress (mid-November) that allows for extensive proposal deliberation, the presentation of counter-proposals by Congress, and discussion among business chambers, unions, civil society, special interest groups and the public in general.

37. **Advancements on public sector and budget transparency are supporting information sharing and improving fiscal policy discussions.** The Government recently launched a website bringing together the most relevant budget information published by SHCP *(Secretaria de Hacienda y Crédito Publico)*.[4] The website on budgetary transparency provides the necessary tools to understand Government expenditure trends and goals in a clear and concise manner. The website provides historical, as well as current data, and therefore aims to also serve as a data resource for analysts.

38. **Relevant stakeholders were extensively consulted in the elaboration of FONDEN's rules of operations.** More than 180 meetings were carried out with representatives of the relevant sectors including, *inter alia*, the housing sector, the urban infrastructure sector, the water and sanitation sector, and the education sector. In addition, States participated in the consultative process by sending proposals which were taken into account in the final version of the rules of operation.

39. **Another level of public consultation occurs through the Federal Commission for Regulatory Improvement (COFEMER).** The agency is responsible for the promotion of transparent development and implementation of regulatory reform policies. Drafts of changing regulations are subject to a regulatory impact assessment and publicly available at COFEMER's website, giving citizens and civil society organizations an opportunity to comment. For example, the recent change in bank's provisioning rules for subnational lending was included in the COFEMER website for public consultation.

IV. BANK SUPPORT TO THE GOVERNMENT'S PROGRAM

Link to World Bank Group's Country Partnership Strategy

40. **The World Bank Group's Country Partnership Strategy (CPS) and the CPS Progress Report were presented to the Board in March 2008** (Report No. 42846-MX) **and February 2010** (Report No. 52776-MX)**, respectively.** The proposed operation is in line with the CPS Progress Report which envisioned an active program of financial services during fiscal year 2012 in response to the Government's request. Moreover, the proposed operation is part of a larger programmatic engagement in the area of budget stability and transparency, natural disaster risk management, and subnational public finance.

World Bank engagement

41. **World Bank engagement in Mexico on the fiscal risk management objectives supported by this operation has been strong.** The Bank has supported Mexico's integrated fiscal risk management framework through a range of financial and knowledge services. The following examples are illustrative (see Table 1 for a comprehensive overview):

[4] www.transparenciapresupuestaria.gob.mx

(a) Budget Stability and Transparency

- **Results-based management:** The Bank collaborated with the Government to improve Federal Public Administration management, set in motion a new framework for result-based budgeting and produce high quality information on performance. Encouragement of public sector officials and legislative policy makers to employ this information when taking decisions, improved the efficiency and effectiveness of public spending significantly.
- **Integrated financial management information system:** The Bank provided fee-based advisory services to strengthen the integrated financial management information system (IFMIS). A robust IFMIS is essential at all stages of the budget process to help promote sound fiscal management and performance-informed budgeting.

(b) Natural Disaster Risk Management

- **Catastrophe Bonds:** Mexico was the first country to use the MultiCat program, a flexible catastrophe bond series developed by the Bank that allows for the pooling of multiple perils, regions and countries. Mexico issued a US$290 million bond in October 2009, which provides three year coverage for three specific risks – earthquakes (three areas around Mexico City), Pacific hurricanes (two areas) and Atlantic hurricanes (namely the area around Cancun).
- **Proposed DPL on Social Resilience to Climate Changes:** The Government requested a Strengthening Social Resilience to Climate Change DPL of US$300,751,879.70 to be presented to the Board for approval in March 2012. The Project aims to help the Government reduce the impact of climate change on the poor through sustainable territorial development, increased preparedness and reduced vulnerability to natural disasters.

(c) Subnational Debt Management

- **Accounting Harmonization:** The Bank has provided flexible, demand-based services to support the Government's accounting reform, by providing assistance in the accounting law design and supporting its implementation. In addition, a report on Government accounting harmonization in Mexico was prepared in 2010.
- **Fiscal Federalism:** An earlier Bank analysis on fiscal federalism in Mexico is currently being followed up and updated by a study on fiscal federalism in Latin America.[5] The analysis provides detailed research on the state of affairs and new developments related to fiscal federalism and decentralization in Mexico.

Links between the DPL and Prior Analytical Work

42. **Bank analytical work has contributed to the improvement of budget stability and transparency and the design of natural disaster and subnational risk management**. A wide-ranging body of analytical work has provided the basis for a policy dialogue with the Government and supported the design of the DPL. The table below shows the links between the prior actions included in the DPL and the recommendations included in recent analytical work.

[5] *Achievement and Challenges of Fiscal Decentralization: the case of Mexico*, ed. Marcelo M. Guigale and Steven B. Webb (Washington D.C., World Bank, 2000).

Table 3: Analytical Underpinnings

Analytical Work	Findings and Recommendations	Prior Actions
A. Budget Stability and Transparency		
Lora (2006), "The State of State Reform in Latin America".	Transparency rules have acquired importance since the mid-1990s with the passage of laws that establish free access of information and dissemination of fiscal results. The adoption of a single treasury account improves cash control over fiscal resources. The single account also affects intra-executive relations as it permits, by strengthening cash controls and budget management, the monitoring and timely control of transactions and expenditure, and extends to all entities a sense of fiscal discipline that previously existed only in the finance ministry.	A-1 (Single Treasury Account)
Glaessner and Kantur (2004), "Two Case Studies on Electronic Distribution of Government Securities".	The analysis focused on two case studies: Philippines and the United States. In the Philippines, the Expanded Small Investors Program aimed to increase access to government securities and distribute them more widely, develop better savings products, and enhance competition in the primary markets for these securities. According to the authors' analysis, the program was successful but regular and responsive assessments and adjustments were needed as the program developed. In the United States, the electronic distribution system (Treasury Direct) achieved important cost savings for the Bureau of Public Debt.	A-2 (Cetes Directo)
World Bank (2007), "Developing the Domestic Government Debt Market".	Promoting a more diversified investor base with different time horizon and risk preferences is important for stimulating the development of the primary market and enabling governments to issue a broader set of instruments across the yield curve. Retail investors play an important role in several countries. They are a strong presence in Pakistan, Sri Lanka, and Tunisia, but have the potential to expand in all countries. Action plans emphasize the importance of developing electronic distribution and record-keeping systems to ensure that the cost of reaching retail investors does not exceed that of issuing through wholesale markets. Greater use of electronic services is a promising avenue.	A-2 (Cetes Directo)
B. Natural Disaster Risk Management		
Ghesquiere and Mahul (2010), "Financial Protection of the State against Natural Disasters"	A sovereign risk financing strategy aims at strengthening the capacity of the Government to respond following a natural disaster while protecting its fiscal balance. A number of instruments are available to build such a strategy, each with its own cost structure and characteristics. An effective financial strategy against natural disasters relies on a combination of these instruments, taking into consideration the country's fiscal risk profile, the cost of available instruments and the disbursement profile after a disaster.	B-1 (FONDEN reform)
Hofman and Brukoff (2006), "Insuring Public Finances Against Natural Disasters"	Natural disasters can put severe strains on public finances, in particular in developing and small countries. Catastrophe insurance markets increasingly offer opportunities for the transfer of such risks. Thus far, developing countries have only tepidly begun to tap these opportunities. More frequent and intensive use of insurance markets may be desirable because it could help introduce an important element of predictability in post-disaster public finances of disaster-prone developing countries. IFIs and the donor community should work toward a sustainable model for collaboration among donors and recipients that facilitates a shift from ad hoc after-the-event relief, toward more reliable and predictable ex-ante provisioning based on commercial insurance. Such a shift would help reduce the fiscal second-round effects, thereby limiting economic disruption and facilitating faster recovery.	B-2 (stop-loss insurance)

C. Subnational Debt Management		
Giugale and Webb, ed. (2000), "*Achievement and Challenge of Fiscal Decentralization: the case of Mexico*".	Decentralization in Mexico redistributed decision-making across the three levels of government (federal, state, and municipal) and made it more accountable to the average citizen. It also gave subnational governments a renewed role as economic agents. The taxation, spending, borrowing, and institutions of Mexican states and municipalities placed them increasingly (albeit unevenly) under the rigor of market discipline.	D-1 (lending to SNGs)
Canuto and Liu (2010), "Subnational debt finance: make it sustainable".	Ex-ante fiscal rules for subnational governments (SNGs) debt financing can also be supported by regulation on lenders. To improve fiscal transparency, Mexico introduced a credit-rating system for SNGs. Although the credit rating is voluntary, bank loan capital-risk weighting introduced in 2000 and loss provisions introduced in 2004 aimed to impose subnational fiscal discipline through the market pricing of subnational credits.	D-1 (lending to SNGs)
Liu (2010), "Strengthening Subnational Debt Financing and Managing Risks".	Two key questions relate to how to select fiscal indicators for regulating subnational government debt financing and how these fiscal indicators relate to subnational fiscal sustainability. First, which is the most critical ratio for assessing fiscal sustainability of subnationals? The usual candidates are: debt stock-to-SGDP (subnational GDP) ratio, debt stock-to-total revenue ratio, debt service-to-total revenue, and budget deficit-to-SGDP ratio. Second, what are the standard thresholds for each of these ratios that are normally used in assessing whether a subnational's fiscal framework is sustainable or not? It is an empirical question and the threshold is country period specific, and depends on the growth rate, primary balance, interest rate and government creditworthiness. Higher growth rate, lower interest rate and conservative fiscal policies are often correlated with a higher debt limit.	D-1 (lending to SNGs)

Lessons Learned

43. **The design of the proposed operation takes into account the lessons learned** from the overall program with Mexico, previous DPLs, in particular the recent Economic Policies in Response to the Global Crisis[6], as well as the Development Policy Lending Retrospective (2009).[7] The most important lessons include the following:

- ***Operations should focus on actions that are critical to the achievement of the program's objectives and avoid covering too many policy areas.*** The proposed DPL matrix has sought to concentrate on the most recent policy actions that enhance Mexico's fiscal risk management framework. The selection of the policy areas and prior actions follows extensive consultations with the Government and, based on the experience of earlier DPLs, the number of prior actions has been limited.
- ***Strong country ownership, coalition-building and political economy considerations are critical to success.*** The proposed operation responds to the Government's request to support policy areas that are central to its risk management strategy and, which follow consultations with stakeholders according to the country's institutional framework as described in paragraph 36-39. Experience has shown that without strong country ownership the risk of policy reform reversal is high.

[6] Report number 51219-MX, and Implementation Completion Report No: ICR00001939
[7] 2009 Development Policy Lending Retrospective, August 2009.

- ***Prior strong analytical work and continued engagement is a necessary precondition.*** The World Bank has maintained a fruitful dialogue with the Government on all the policy areas supported by the proposed operation. While strong government and country ownership underlies the prior actions contained in the proposed operation, the World Bank's global knowledge and analytical work has informed the design and discussion surrounding these policies.
- ***Strategic engagement and support needs to complement policy lending.*** The Government has requested the Bank's support in the areas of natural disaster risk management and budget stability and transparency enhancement. The experience with developing and providing comprehensive analytic and advisory packages on priority issues, as a complement to policy lending, has served to ensure that policy development is predicated upon a sound and strategic analytic basis. On disaster risk management, the Bank is providing technical assistance to the Government for the MultiCat bond renewal and starting advisory knowledge services on strengthen its comprehensive financial protection strategy and its disaster risk reduction monitoring and evaluation system.
- ***Need for a sound and well-structured monitoring system and transparent progress review.*** Measuring impact requires the identification of indicators that are closely linked to the prior actions endorsed by the operation. Outcome indicators have been agreed with the Government as reflected in the Policy Matrix. The Bank will monitor closely the impact of the policy actions supported by the DPL and progress towards the agreed impact indicators. A framework with the SHCP and other agencies involved in the program will be developed so that they will provide regular information on the outcome indicators. Monitoring of outcome indicators will also be supported by supervision missions. Such coordination will avoid the problems identified in some earlier DPLs, where program implementation responsibilities were not clearly established from the onset.

Collaboration with other Development Partners

44. **The World Bank and IMF conduct regular consultations on Mexico's macroeconomic situation.** The meetings involve the exchange of analytical reports carried out by the respective institutions. Structural issues are often discussed during these meetings, especially financial sector issues since both institutions are engaged in policy advice in this area. The World Bank and IMF recently jointly completed the 2011-12 Financial Sector Assessment Program (FSAP) update.

45. **In July 2011, the IMF published Mexico's Article IV Consultation Staff Report.** The report attributed the economy's robust rebound from the crisis to Mexico's strong fundamentals and skillful policy making. Mexico signed a new Flexible Credit Line (FCL) for approximately US$73 billion in January 2011, increasing the country's access to liquid resources and providing a significant buffer against potential tail risks.[8] Mexico was the first country to request this instrument, which is treated as precautionary by the Government. The IMF provided the Government with technical assistance related to tax policy, fiscal risk management, national accounts and the fiscal framework within the last 2 years.

[8] A first FCL was contracted in April 2009, a second in March 2010, and the current FCL in January 2011 for a period of two years. The annual review of qualifications for the FCL was completed in December 2011.

46. **The World Bank maintains close collaboration with the Inter-American Development Bank (IDB).** The exchange of views and sharing of documents enhances the quality of project implementation, supervision and achievement of development objectives of operations. The IDB has supported numerous projects in Mexico and published a number of reports and working papers related to poverty, fiscal policy[9]and climate change.[10] The IDB has been very supportive of Mexico's climate programs related to prevention and natural disaster emergency response capacity. The IDB also recently arranged a working meeting with specialists, academics, rating agencies, analysts, and public and commercial bank officials to analyze Mexico's subnational debt and suggest measures to improve monitoring and regulation.

V. THE PROPOSED OPERATION

Operation Description

47. **The Overall Program Development Objective is to support Mexico's fiscal risk management policies so as to foster the efficient and effective implementation of public sector expenditure programs.** This will be achieved by (i) supporting Mexico's integrated risk management approach, (ii) promoting the institutionalization of risk mitigation policies, and, (iii) highlighting critical elements of Mexico's risk management framework.

48. **The operation contains three policy areas: budget stability and transparency, natural disaster risk management, and subnational debt management.** Each policy area summary will be divided into 4 sections: background, government actions, expected results, and Government's medium term reform agenda. A more complete analysis of each policy area is included in the annex section of the document.

Policy Area I: Budget Stability and Transparency

Background

49. **Prudent fiscal policies and improved public liability management have reduced expenditure volatility in Mexico.** Since 2006, fiscal policy has been guided by the balanced budget rule and medium-term budgetary framework imbedded in the Fiscal Responsibility Law (FRL). The FRL institutionalized Government efforts to contain fiscal deficits and stabilize debt levels, while supporting accountability and transparency in the annual budget process. In addition to the establishment of a balanced budget rule, the law also introduced a formula for calculating oil prices in budget projections, and established four excess oil-revenue stabilization funds. The current balanced budget rule has served well to build credibility.

[9] Such as the paper *Fiscal Policy Reform in Latin America* and the US$1 billion Program to Support the Consolidation of Fiscal Sustainability loan (September 2010), which complemented the objectives of the Bank's Economic Policies in Response to the Global Crisis DPL and supported macroeconomic and financial stability, reduced fiscal vulnerability and improved the quality of fiscal and financial management.

[10] Technical notes on *Natural Disasters on Financial Risk Management: Technical and Policy Underpinning for the Use of Disaster-Linked Financial Instruments in Latin America and the Caribbean, Disaster Risk Management Policy Guidelines,* and *From Disaster Response to Prevention.*

50. **Cash management optimization fostered budget stability and transparency.** Improvement in the management of public finances and in particular the establishment of the Single Treasury Account (STA) in 2007 has augmented the efficiency and transparency of budget execution. The centralization of cash balances within a single account optimizes cash management by efficiently tracking cash flows, improving investment of liquid funds, and allowing for better planning of debt issues. The direct receipt of federal government revenues and direct payment to final beneficiaries' bank accounts limit financial costs, strengthen financial inclusion, and promote transparency in public accounts.

51. **A strengthened public debt profile limits public finance vulnerability to macroeconomic short term fiscal risks.** The substitution of external for domestic public sector debt, and the phase out of currency-linked and increase in fixed-rate debt instruments have been integral to Mexico's debt management program, and have reduced vulnerabilities associated with exchange and interest rate movements. The lengthening of the average maturity of local Government bonds, to more than 7 years in 2011 from 1.5 in 2000, has reduced financing risk and broadened the investor base.[11] A longer average maturity for government debt, in addition to sizeable international reserves also safeguards the economy should Europe's debt crisis or the U.S. slowdown prompt a sharp reversal of capital flows.

Government Actions

52. **The Government has maintained its commitment to promote budget stability and transparency and improve its debt management strategy.** Budget stability and transparency are crucial to foster the efficient and effective implementation of public expenditure programs and avoid disruptive ad hoc adjustments during annual budget implementation. Optimizing the debt management strategy is key to increase resilience to shocks and minimize risks. To achieve these objectives, the Government launched Cetes Directo and moved forward the Single Treasury Account agenda.

53. **The launching of Cetes Directo, an internet portal promoting the direct purchase of government securities by retail investors, advances the Government's effort to broaden the investor base and develop deep and liquid public debt markets.** The Cetes Directo platform constitutes a new distribution channel of financial services able to meet the demand for small and medium investors interested in low value investments. The traditional method for issuing government debt is through auctions open just for wholesale investors and financial intermediaries. A retail government debt program gives small investors the opportunity to buy government securities at a lower cost without intermediaries. A similar scheme is already used by countries such as United States (Treasury Direct), Brazil (Tesouro Direto), Spain (Tesoro Público) and others. Recent modifications to the program, allowing for the fast track investment in Cetes for low value amounts, and the ability to invest through additional wireless devices (such as cellular phones) broaden the scope and mechanism for retail investment in government instruments.

54. **Modernization of the Mexican Treasury through the improvement of its processes and streamlining of revenue and payment flows through the STA supports budget stability**

[11] The pushing out of local debt tenors also improves the reference point for companies selling bonds.

and transparency. While federal government payments to the judiciary, legislative and other autonomous agencies, for public debt and federal contributions to states are already channeled through the STA, payment to suppliers and for contracts, revolving funds, payroll, subsidies, budget advancements and trust funds are gradually being rolled out through the STA in 2011 and 2012. The Government recently issued regulation that advances through the STA the payment of pensions for those insured by the *Instituto Mexicano del Seguro Social* (IMSS) and the *Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado* (ISSSTE). Currently, approximately 70 percent of the public budget is channeled through the STA. The recent International Organization for Standardization (ISO) certification of TESOFE's (*Tesorería de la Federación*) processes provides a set of standardized requirements for quality management systems, and is in line with international best practices.

Policy Area 1: Budget Stability and Transparency *Objective:* (i) Improve fiscal and public debt management practices (ii) Enhance budget stability and transparency	
***Prior Actions**:* *The Government launched Cetes Directo, to promote the direct purchase of government securities (valores gubernamentales) by retail investors.* *The Government obtained an ISO 9001:2008 certification of TESOFE's 27 operational processes governing the administration of federal funds.* *The Government issued a Decree which, inter alia, fosters the implementation of electronic payments through the Single Treasury Account, including the payment of pensions under the Federal Government's responsibility.*	***Outcome Indicators:*** *Number of active Cetes Directo accounts.* *Amount of resources invested through Cetes Directo.* *Annual number of payments made from the Single Treasury Account.*

Expected results

55. **The Cetes Directo operation will further the Government's efforts to broaden Mexico's retail investor base.** The incorporation of a large, diversified, and largely untapped investor base could over time lower the cost of public sector borrowing and reduce the volatility of financing needs. Furthermore, the program promotes transparency and accountability of the Government's debt management policies. At the micro-level, savings through Cetes Directo provides individuals with an additional instrument against temporary shocks to income by supporting consumption smoothing. The outcome of the operation is being measured by looking at the number of registered customers and the amount invested through the portal. Progress can be assessed using international benchmarks as similar programs have been launched in other countries, such as Brazil (Tesouro Direto). In its first year of operation, Cetes Directo managed to register 34,000 customers, while 7,000 accounts have formally purchased approximately 478 million pesos of government instruments through the Internet platform. It is expected that Cetes Directo will reach 15,000 customers by end of 2012, with the invested amount increasing to 1 billion pesos. Over the medium term, it is expected that the number of customers may increase to 100,000 and the amount invested reach 10 billion pesos.

56. **ISO certification guarantees TESOFE's transparency, accountability and continual improvement in services rendered.** Twenty seven substantive processes have been certified in 2011 dealing with treasury operations, accounting, monitoring, and legal units. The certification endorses Mexico's treasury processes and quality standards, and ensures that the latter are recognized throughout the world. The accreditation will also enhance staff's professional image and support educational training.

57. **The incorporation of additional revenue and expenditure line items into the single treasury account will consolidate cash resources, increase budget transparency and generate savings for the Federal Government.** Over the past 4 years Government savings from tax collection through the STA have amounted to US$139 million. The incorporation of the payment of pensions will channel an additional 25 percent of the budget through the STA, while the annual number of payments made through the system will likely increase from 15 million to 25 million by end 2012. The modernization project continues to improve the quality of public spending, reinforces accountability and is in line with international best practices.

Government's medium-term reform agenda

58. **Adoption of a new Treasury Law will support the progress made on budget stability and transparency.** The law, currently in draft form, should update regulation related to the implemented operational and legal changes, and address legal gaps and technological changes in the payment system and TESOFE. The Government continues to work on improvements to the final text of the draft Treasury Law, while engaging in consultations with external actors. The draft Treasury Law designates the STA as the backbone of the Treasury's operations, with TESOFE in charge of all cash management. Finally, the draft Treasury Law would seek to be more concise and consistent with international best practices.

59. **Budget stability and transparency would benefit from the institutionalization of the oil price hedge and lifting of the stabilization fund caps.** Such a policy action would mitigate the risk of backtracking and reinforce the establishment of a number of key elements of Mexico's fiscal risk management framework. A removal of the caps would create a more effective fiscal buffer by promoting greater savings during economic upturns and periods of high oil prices in order to respond to large negative shocks. Likewise, the institutionalization of Mexico's oil hedging program would reduce the pressure to use these funds for other needs, such as to meet budget shortfalls. Adoption of a structural fiscal rule would further smooth spending patterns over time and reduce the pro-cyclicality of expenditure observed under the current rule.

Policy Area II: Natural Disaster Risk Management

Background

60. **Natural disaster risk is high in Mexico.** Mexico is highly vulnerable to a number of natural hazards, with approximately 41 percent of Mexico's territory and 31 percent of its population exposed to hurricanes, storms, floods, earthquakes and volcanic eruptions. In economic terms, this translates into 30 percent of GDP at risk from three or more hazards and 71 percent at risk from two or more hazards. Population growth and increased concentration of

physical assets in highly exposed areas has led to heightened vulnerability to adverse events, while unplanned and unregulated land use, lack of environmental controls and poor application of building standards exacerbates asset losses.

61. **The Government has pursued an integrated approach to disaster risk management, involving the assessment, prevention, and transfer of fiscal risks.** The current risk financing strategy includes a variety of financing components, ranging from budgetary reserve funds and prevention through build-back-better schemes to private risk transfer instruments such as specific sector insurance policies, reinsurance and catastrophe bonds. Assessment of the Federal Government's infrastructure at risk has facilitated the transfer of some of Mexico's low-frequency high-cost natural disaster risk through a number of insurance products.

62. **The National Fund for Natural Disasters (FONDEN), a key player in Mexico's disaster risk management strategy, was established in 1996 to support natural disaster emergency response and reconstruction.** FONDEN protects the Mexican population (through immediate relief response), its public assets (through reconstruction financing), and (uninsured) low-income housing from disasters that exceed Federal and State governments and agencies financial response capacity. It is jointly managed by the Ministry of Interior (SEGOB) and the Ministry of Finance (SHCP) and uses various instruments to support federal and state governments and federal agencies response to natural disasters, including reserve funds and risk transfer solutions. FONDEN, a multi-annual trust fund, receives an annual budget allocation to assure the availability of at least 0.4 percent of total programmable public expenditure at the beginning of each budget year. In 2006, FONDEN issued a US$160 million catastrophe bond (CatMex) to transfer some of Mexico's earthquake risk to the international capital markets. In October 2009, it issued a multi-peril three year (2009-2012) Cat bond using the World Bank's newly established MultiCat Program, which enables the pooling of perils across multiple regions to reduce insurance costs.

Government Actions

63. **In 2011, the Government reformed FONDEN's operating rules to more efficiently allocate fund resources.** The new rules allow Federal and State Governments to independently finance and manage reconstruction activities. Previously, Federal and State contributions were placed in a common financial vehicle from which all expenditures were paid once both entities had committed the necessary funds. Under the new scheme, the federal government is responsible for the full reconstruction of damaged federal infrastructure and for fifty percent of the affected State infrastructure, with the State responsible for the remaining half.

64. **In June 2011, the Federal Government successfully concluded the purchase in the reinsurance market of a stop-loss insurance against catastrophic events.** The indemnity-based reinsurance product for MXN 4.8 billion (approximately US$390 million) in excess of MXN 12.5 billion (US$ 1 billion) further strengthens the Government's budgetary resources through the transfer of some catastrophic risk. Reinsurance payouts are triggered when the resources allocated to FONDEN result insufficient to pay the costs associated with reconstruction. The insurance would provide up to MXN 4.8 billion to finance reconstruction without the need to allocate extraordinary resources from the budget or cut funds assigned to other important programs. The insurance product is valid for one-year but is in the process of

being renewed for both financial and governance reasons. Besides further integrating Mexico's disaster risk management strategy, the insurance product optimizes the damage assessment process and reduces political pressures. The presence of a third party (the insurance company) encourages adherence to damage assessment best practices.

Policy Area 2: Natural Disaster Risk Management *Objective:* Improve the Government's ability to respond to natural disasters and mitigate the impact of natural disaster costs on the budget	
***Prior Actions**:* *The Government issued an Agreement (Acuerdo) and FONDEN rules of operation to allow the States and Federal Government to independently finance and manage the reconstruction of State level infrastructure.* *The Government purchased an indemnity-based insurance to cover FONDEN's excess losses caused by natural disaster events.*	***Outcome Indicators:*** *Average time between the declaration of a natural disaster and access to FONDEN resources for infrastructure reconstruction.* *Number of reconstruction programs closed within each fiscal year as a percent of total open programs.*

Expected results

65. **FONDEN new rules of operation will significantly enhance reconstruction efficiency and improve local risk management.** Previous rules of operations caused reconstruction delays since the execution of the reconstruction work started only if both Federal and State allocations were fully disbursed and States often had difficulties in providing funding. The new scheme is intended to help minimize these delays and expedite recovery. This should be reflected in the reduction of the time for reconstruction. An indicator that is used by the FONDEN General Directorate to measure the progress on reconstruction programs is the percentage of programs closed during a given fiscal year with respect to the number of programs open at the beginning of the same fiscal year. In 2010 this percentage was 26 percent. As a result of the new co-sharing scheme, it is expected that this percentage will increase to 35 percent by December 2012. The new rules will also likely improve local government risk management by encouraging vulnerability reduction and risk financing mechanisms at the local level, since there are incentives for the States to independently insure and improve local infrastructure.

66. **In addition, the new rules of operations support the reduction of the average time between the request and the allocation of FONDEN reconstruction funds.** According to existing FONDEN indicators, the average time in 2010 between the request and allocation of funds was 45 days.[12] The time between the request and allocation of reconstruction funds is a function of the type and size of the natural event. Large floods, such as the ones that occurred in 2010, delay damage assessments and slow down the allocation process. The reform of FONDEN rules of operation simplify procedures and speed up the process of allocation of reconstruction funds. According to FONDEN, the time between a request and allocation of funds should decrease to 28 days by December 2012.

[12] Plan Sexenal 2009-2012 de la Dirección General del FONDEN. C Evaluación, Control y Seguimiento Institucional 2008-2012. Anexo I. Cuaderno de Resultados e Indicadores 2008, 2009, 2010, 2011.

Government's medium-term reform agenda

67. **In an effort to protect budgetary resources and promote risk sharing, FONDEN regulation is encouraging local governments to develop a comprehensive risk management strategy.** The transfer of natural disaster risk through specific sector and/or local Government insurance policies would further decrease natural disaster costs to the federal Government. A subordinate level insurance would ensure an additional layer of protection before the release of FONDEN reconstruction resources. Several federal agencies such as the *Comisión Nacional del Agua* (CONAGUA - responsible for the water, sanitation, and hydraulic infrastructure at federal level), *Secretaría de Educación Pública* (SEP - responsible for public schools and educational institutions), and the Ministry of Health have already contracted insurance as a first layer of protection against disasters. FONDEN is also promoting the establishment of local disaster funds, in order to further decentralize natural disaster emergency response and reconstruction financing. This is a key measure to encourage States to take more responsibility for state infrastructures. Ultimately, FONDEN is aiming towards a decentralized disaster risk management system where local governments have strong incentives to invest in risk reduction, moving away from the current system whereby the federal government finances most of the reconstruction.

68. **More effort on prevention is needed at the three levels of Government to reduce the fiscal and human costs of natural disasters.** Limited resources have been applied through the *Fondo para la Prevención de Desastres Naturales (FOPREDEN)*, with the vast majority of budget allocations used for post-disaster reconstruction. However, increased attention is being placed on ensuring that reconstruction activities 'build back better', thereby reducing the exposure of public assets to disaster risks. Better urban planning and settlement regulation, improved and enforced construction codes, and increased public education and awareness would also reduce natural disaster costs.

Policy Area III: Subnational Debt Management

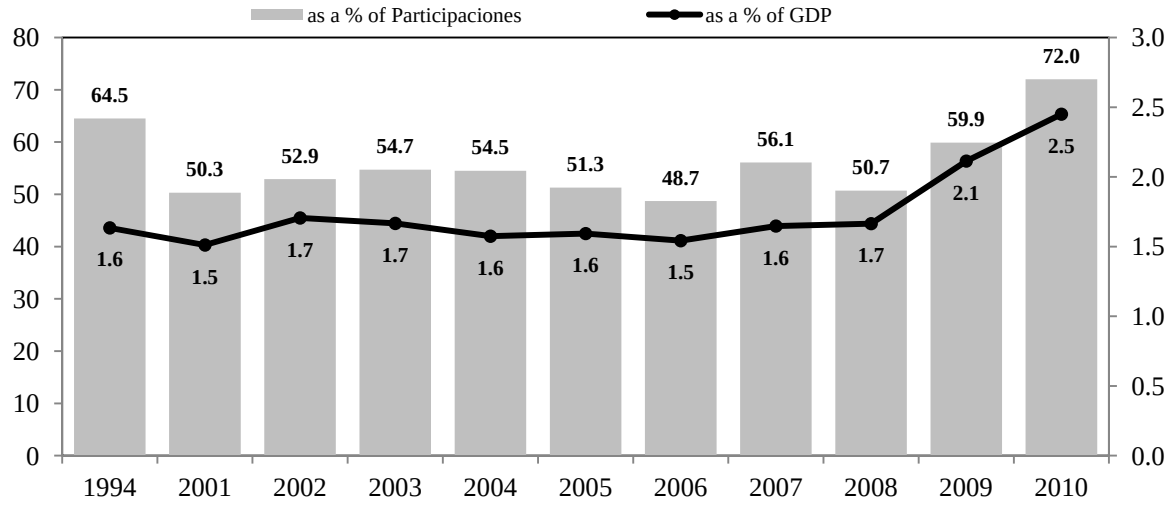
Background

69. **Mexico's federalism is characterized by high vertical fiscal imbalances.** Progressive revenue centralization at the federal government level, coupled with expenditure decentralization at the subnational level has resulted in a high dependence on federal transfers and low tax effort by subnational governments. Transfers from the federal government represent the largest source of funds for subnational governments at approximately 82 percent of total revenue, and are made up of tax revenue shares (*participaciones*) representing about 32 percent of revenue and expenditure-specific or earmarked grants (*aportaciones*) representing 50 percent of revenue.

70. **Subnational government revenue was hard hit by the 2008 crisis**. *Participaciones* experienced a 16 percent drop in 2009, in line with the fall in economic activity. The federal government addressed the shortfall by transferring resources from the FEIEF (*Fondo de Estabilización de los Ingresos de las Entidades Federativas*) to the States and Municipalities

through a securitization of future flows to the FEIEF.[13,14] As reflected in Chart 2, the surge in borrowing as of 2009, led to a significant increase in subnational debt, even excluding FEIEF resources. Though the stock of subnational debt in Mexico is only 2.5 percent of GDP, it amounts to 72 percent of annual non-earmarked transfers (*participaciones*).

Chart 2. Subnational debt as a percent of GDP and Participaciones



71. **In 2009, the Government modified bank prudential regulations, which facilitated access to finance for subnational entities.** The easing of short-term bank lending prudential regulations encouraged short-term borrowing. In particular, short-term debt was exempted from a higher risk rating and the need to establish prudential reserves.[15] As a consequence, short-term debt increased significantly during the last two years. The rapid accumulation of short-term liabilities resulted in unsustainable debt levels and fiscal problems in some States.

72. **Short-term credit was not always included in the federal debt registry resulting in growing discrepancies between reported and actual subnational debt.[16]** According to the ministry of Finance, States had 363 million pesos of debt of which only 314 million pesos were registered with the federal government.[17] The difference between these figures suggests the presence of a relevant amount of short-term debt accumulated and unaccounted for in the

[13] The Federal Government established the FEIEF in 2005. As the resources in the Fund (22 billion pesos) were insufficient to address the 2009 shortfall in *participaciones* (of around 70 billion pesos), the Government designed a financial scheme to securitize future flows of the FEIEF, leading to commercial and development bank's lending 40 billion FEIEF collateralized pesos to subnational governments. The additional resources cushioned the fall in revenue, with *participacione*s amounting to only 2 percent below budget expectations. FEIEF resources are not included in the stock of subnational debt displayed in Chart 2..

[14] The Mexican Constitution allows subnational government borrowing in domestic currency and from Mexican residents only and restricts the use of funds obtained from borrowings to productive investments.

[15] State legislatures have the right to define what constitutes debt and thus what needs to be approved by the local Congress. Most states do not consider liabilities whose maturity is less than a year as debt with the result that no local Congressional approval is needed for short term borrowing.

[16] The definition of short-term debt in terms of maturity–less than 180 days–is based on banking prudential regulation. State public debt laws contain different definitions for short-term credits from financial intermediaries such as credits that have to be paid before the end of the fiscal year or before the end of the term of the current administration.

[17] As of March 2011.

subnational debt registry. The States with the highest discrepancy, in terms of percent of unregistered debt, are: Coahuila, Chihuahua, Michoacán, Tabasco and Zacatecas. The financial distress of the state of Coahuila in 2011 took the authorities and market participants by surprise, in part because there was misreporting and underreporting of the State's debt and possibly fraud, and also because these loans were not considered when monitoring loan concentration.

73. **An incomplete picture of subnational entities liability position heightened fiscal risks and raised questions regarding the existing borrowing framework.** Credit ratings were used by bank regulators to assign capital risk weightings and prudential reserves for bank loans to subnational governments. This regulatory framework encouraged states and larger municipalities to obtain credit ratings, by one of the four approved rating agencies in Mexico—Standard and Poor's, Fitch, Moody's and HR Ratings. However, the over dependence on rating agencies and relaxing of regulations concerning short term debt reduced due diligence by some financial institutions, led to high lending concentrations, and heightened fiscal risks.

Government Actions

74. **In September 2011, the Government modified banking regulation linking prudential reserve requirements for lending to subnational entities to a comprehensive set of indicators.** As a result, reserve provisioning should more closely track the portfolio quality of each institution. The structure of the new approach is largely based on Basel II risk models, and incorporates multiple indicators evaluating willingness and ability to pay based on fiscal and debt management ratios and on economic performance trends. The new credit risk assessment shifts the responsibility for risk evaluation to the financial institutions providing credit. The new regulation will reintroduce prudential reserve requirements on short-term debt and place a high penalty on banks that do not adhere to the new rules. Unregistered loans will be automatically risk-weighted at 150 percent.

Policy Area 3: Subnational Debt Management *Objective:* Enhance fiscal and debt sustainability of state and municipal governments	
Prior Actions: *The Government issued a resolution which links prudential reserve requirements for lending to Subnational Entities to a comprehensive set of indicators.*	***Outcome Indicators:*** *Registered debt as a percent of total debt.*

Expected Results

75. **The new regulation will reduce the demand and stock of short term debt, gradually eliminate the level of unregistered debt and strengthen bank due diligence.** The reintroduction of prudential reserve requirements for short-term debt will reduce subnational short-term debt to more reasonable levels. The new credit assessment will require banks closer engagement in the due diligence process and, in turn, demand more transparency from subnational governments. The authorities anticipate that the new system will provide a better estimate of the probability of default, loss given default and exposure at default, which should more closely link reserve requirements with banks' portfolio quality. The new regulation will likely increase transparency and the share of registered-to-actual debt from 86.5 percent to 93

percent by end of December 2012. Over the medium term, we expect the share of registered debt to be very close to the total amount of subnational debt (>95 percent).

76. **The new regulation will reduce fiscal risks by diminishing the information asymmetry between borrowers and lenders and increase transparency.** The new regulation will promote transparency and accountability of the Government's debt management and public finance policies. Enhanced subnational liability data will allow for more fact based and accurate state and municipality credit assessments. The new framework should also promote a greater payment culture among States and Municipalities by including the information collected by the credit bureau among the criteria which determine reserve requirements.

Government's medium term reform agenda

77. **A more transparent accounting and regulatory framework would strengthen subnational fiscal discipline and improve monitoring and evaluation of intergovernmental flows.** An internalization of spending and revenue-raising decision costs and strengthening of debt data accuracy would improve subnational fiscal discipline. The establishment of a common budget classification system in parallel to accounting harmonization would also enhance fiscal transparency and support standardization across government levels. Fiscal transparency at the subnational level, including the preparation of medium and long-term budget projections, would facilitate the identification of longer term fiscal risks related to population aging and support the establishment of a comprehensive national fiscal risk management strategy.

78. **The Government should define expenditure responsibilities more clearly.** Health and education are the two main areas that present an issue of overlapping responsibilities. Weaknesses in information and reporting systems make it difficult to clearly separate federal and state responsibilities and assess whether federal funds have been used effectively. Furthermore, there is still the need to improve local revenue raising capacity and strengthen the predictability of intergovernmental transfer rules.

VI. OPERATION IMPLEMENTATION

Risk and Risk Mitigation

79. **Looking ahead, the development outcome of the program is subject to risks, though moderate and mitigated by the Government's ongoing commitment and strong ownership of the supported reforms.** A sharp weakening in the economic recovery of the United States would pose downside risks to Mexico's growth due to the high degree of integration, and could affect some program progress. Likewise, sovereign debt and banking sector problems in Europe could increase global risk aversion, and lead to higher volatility in Mexico's financial markets. However, the Government's record of sound and predictable macroeconomic management, reflected in their successful response to the 2009 global crisis, and the increased insurance provided by the international reserve accumulation and a successor IMF Flexible Credit Line mitigate some of these tail risks. Though the Government has less fiscal flexibility than it had at the onset of the 2008/2009 crisis, it can engage in limited fiscal easing. The Government's solid

track record is a testament to their strong commitment to prudent fiscal policies and therefore, reduces the likelihood of backtracking.

80. **Limited control over the legislative agenda and the upcoming presidential elections –July 2012– may lead to slower and less progress on the advancement of structural reforms.** In order to obtain congressional approval for legislative reforms, President Felipe Calderón will need the cooperation of the major opposition parties in the lower house of Congress. While this has proved challenging throughout the current administration, as presidential elections draw closer the possibility to construct legislative majorities to support reform proposals will diminish. As a result, the Government has begun to rely on actions that do not require legislative approval, such as a number of those supported in this operation.

81. **Deterioration in Mexico's security situation could lead to some backtracking in program outcomes.** If the security situation degenerates further it could impact fiscal consolidation, investment and economic growth. Increased competition between the gangs on the control of drug flows has led to a rise in violence over the past few years. The Government is strengthening and reorganizing its security forces to contain and reduce the impact of organized crime in Mexico.

Poverty, Social and Environmental Impacts

82. **The program is expected to have a positive poverty and social impact on the poor and vulnerable.** A Poverty and Social Impact Assessment (PSIA) carried out by the Bank (Annex 5) assesses in some detail the poverty and social impacts of policies included in the budget stability and transparency, natural disaster risk management, and subnational debt management policy areas. It is expected that the main policies supported by this operation will protect pro-poor program budgets, contribute to financial inclusion, and improve government efficiency in natural disaster response.

83. **After a decade of continuous decline, poverty reversed the trend in 2006.** Mexico saw a dramatic decline in poverty between 1996 and 2004 with poverty falling almost 22 percentage points. Income poverty dropped to its lowest point in 2006, at 42.7 percent, before reversing the 10-year trend. As the effects of the food and fuel prices shocks along with the financial crisis of 2008 made themselves felt, the incidence of poverty rose. Between 2006 and 2008, poverty increased by five percentage points and, in the next two years rose a further 3.6 points.

84. **The policies in the budget stability and transparency area will likely have a positive social impact through increased budget transparency, greater ability to protect government programs, and the promotion of financial inclusion.** The establishment of a single treasury account will increase budget stability and transparency and allow for more effective budgetary planning. The electronic payment of benefits to the unbanked should promote access to formal financial sector products and services to a wider section of the population. Access to financial sector instruments, and in particular access to savings, have the potential to increase welfare. The establishment of an electronic retail system for public debt,

Cetes Directo, is targeting low income inexperienced investors. From the most recent data, it appears that investors have limited holdings. Though it is unlikely that growth in the number of investors will have a significant impact on national poverty levels it is providing access to a reliable and higher yielding savings instrument for a larger segment of the population.

85. **The policies in the natural disaster risk management policy area will likely improve the Government's ability to respond to and mitigate the impact of disasters.** In so doing, the DPL will help the Government improve its capacity to protect all of its citizens - including the most vulnerable- from natural hazards. Mexico's exposure to natural disasters has broad implications both for infrastructure costs and socio-economic vulnerability and poverty. Poorer communities generally face greater exposure and a longer-lasting impact to natural disasters. While the monetary value of the asset loss for poor households may be less than for wealthier households, the loss of a fraction of those assets may imply a greater loss in welfare. The combination of vulnerability to risk and poverty translates into higher and longer impact of disasters on poorer communities. A differentiated analysis of the type of social expenditures/ programs that are normally affected by the contraction/re-allocation of funding after a disaster will be conducted, building on a literature review of other relevant cases.

86. **Environmental Aspects. The natural disaster-related prior actions supported by this operation will likely have a positive effect on the environment.** In particular, the new FONDEN rules of operation will help the Government support and strengthen the following areas: (a) institutional, legal, and policy frameworks for disaster risk management; (b) risk identification, assessment, and monitoring capacities by enhancing its institutional framework; (c) reduction of underlying risk factors such as developing new projects in safe areas; and (d) improved preparedness for effective response and recovery. These areas of support will contribute to strengthening institutions related to environmental protection and disaster risk management. In addition, the operation supports the Government's efforts in mainstreaming disaster risk management into a number of key policy areas, such as environmental management. Measures included in the 2007-2012 National Development Program are aimed at promoting environmental sustainability, reducing vulnerability to climate change, and improving the management of the natural disaster fund (FONDEN).

87. **Fiduciary aspects. The public financial management systems at the Federal level are adequate to support development policy lending in the country**. This has been documented in several World Bank analytical works such as the Country Financial Accountability Assessment (CFAA), the Country Procurement Assessment Report (CPAR), and other analytical work, including knowledge services products and other DPLs approved in recent years. As envisioned in the CPS, the Bank has been collaborating with the Government at the central and sub-national level in strategic areas aimed at modernizing and reforming public finances, and increasing transparency. This has been supported through a package of different Bank financing instruments and knowledge services.

88. **In the last decade, the Government has introduced a number of laws and policy reforms in public finances aimed at improving fiscal responsibility and transparency by modernizing the budget process and creating a more efficient and transparent fiscal framework in line with international good practices**. The funding from this DPL will support

the Federal Expenditure Budget (*Presupuesto de Egresos de la Federación*, PEF) and, accordingly, will be subject to provisions of the annual PEF Law, the Federal Budget and Fiscal Responsibility Law, the Government Accounting Law, and the Manual of Budget Procedures among others. The PEF is published in a timely manner and is available in the SHCP website for the current and prior years.[18] This set of legal and regulatory arrangements, together with the country financial management operating systems, provides for sound budget formulation, execution and internal control arrangements for execution of public expenditures. Other internal control aspects are ruled by the Federal Public Administration Internal Control Standards.

89. **Although rules and procedures governing the budget, accounting, and public expenditure laws are clear and comprehensive, and the budget monitoring and control systems perform well, there remain areas within the public finances where further advances could be pursued**. Developing a long term focus for the budget, including performance results in the budget formulation process, and engaging the public sector to focus on results are key priorities. Currently the Government is working towards achieving the envisioned Public Financial Management (PFM) reforms, including harmonized budget and accounting financial reporting, modernization of its treasury operations, as well as designing and implementing an integrated financial information management system at federal level, which is expected to be implemented during 2012.

90. **As for external oversight, the Federal Supreme Audit Institution conducts, on a regular basis, a number of audits (i.e. financial, performance and compliance audits) on federal Government programs**. The annual public accounts are prepared and sent to Congress within four months of the end of each fiscal year. The external audit of these accounts is undertaken by the Auditor General's office and submitted to the legislature fourteen months after the end of each fiscal year in accordance with national legislation. Audit reports are comprehensive and there is a system in place to follow up on audit findings and recommendations, in coordination with the Ministry of Civil Service (*Secretaria de la Función Pública*, SFP). The results of audits by the Auditor General's office are made public in the Annual Audit Report on the Federal Public Accounts. Recent amendments to the Federal Constitution and a new Law on Supreme Auditing and Accountability have contributed to the overall strengthening of country fiscal transparency and accountability.

91. **The current Government has the objective to align public procurement more closely with economic expenditure policy**, aimed at producing value for money, ensuring transparency, economy and efficiency, while improving the overall quality of the goods and services. In addition, operational changes as well as amendments to the legal and regulatory framework advanced in 2009 and 2010 have taken several important steps towards addressing the issues identified in previous World Bank assessments of the federal procurement system in Mexico (2007[19], 2010[20], and 2011[21]). As envisioned in the Country Procurement Strategy, the World

[18] The PEF for 2012 was published on December 12, 2011 in Mexico's Official Gazette. http://www.dof.gob.mx/avisos/2095/SHCP_121211_04/SHCP_121211_04.htm

[19] The World Bank Country Procurement Assessment Review (CPAR) of 2007 (prepared jointly with the IADB) identified issues in the public procurement system including excessive regulatory complexity and need for more effective governance and coordination.

Bank is collaborating with the Government in modernizing its public procurement and other aspects of the PFM. This support is being provided by a number of knowledge services as well as lending instruments.

92. **Disbursement and Auditing. The flow of fund arrangements for this operation will be those customarily observed in DPLs for Mexico, as per long-standing agreements with the Government**. The SHCP has informed the Bank that *Banco del Ahorro Nacional y Servicios Financieros* (BANSEFI) will be the financial agent of the Borrower with regard to this DPL.[22] Under this arrangement, upon effectiveness and compliance with any withdrawal tranche release conditions, the Bank would deposit the single tranche disbursement to a designated account of the financial agent in US Dollars for subsequent credit to an account of the National Treasury (SHCP/*Tesorería de la Federación*, TESOFE) in *Banco de Mexico* (BANXICO) used for budgeted expenditures. Based on the review of the 2010 audit reports of the financial agent and the extensive experience between the Bank and the financial agent regarding funds flow from Bank-financed projects, there is no evidence that the banking control environment into which the DPL proceeds would flow is other than adequate. If requested by the Bank, the SHCP would provide the Bank with a written confirmation of the described transaction.

93. **Based on the assessment of the borrower's current PFM and the conclusion that the fiduciary arrangements for this financing are adequate**, the Bank will not require an audit of the designated account of the financial agent, and no additional fiduciary arrangements are considered necessary at this time.

[20] Relevant aspects of the legal, operational and institutional structures of the federal procurement system in Mexico were reviewed as part of the Strengthening the Business Environment for Enhanced Economic Grow Development Policy Loan, November 2010.

[21] World Bank Knowledge Services, November 2011.

[22] The use of a financial agent and designated account is a standard procedure of the Government of Mexico for their control purposes and not an additional requirement by the Bank.

VII. ANNEXES

Annex 1: Letter of Development Policy

SECRETARÍA DE HACIENDA Y CRÉDITO PÚBLICO

Subsecretaría de Hacienda y Crédito Público

102-B.- 018

SHCP

México, D. F., 9 de febrero de 2012.

ROBERT ZOELLICK
Presidente
Banco Mundial

Estimado Sr. Zoellick:

En la actual coyuntura de la economía global, caracterizada por los efectos negativos en la producción y el empleo causados por la crisis financiera internacional, conjuntamente con la presencia de elementos como la volatilidad de precios de los productos básicos y la mayor frecuencia e intensidad de los desastres naturales, se genera a necesidad de manejar de una manera más adecuada la incertidumbre y los riesgos macroeconómicos que se producen sobre las finanzas públicas. En este contexto, el Gobierno de México ha implementado una estrategia para enfrentar las diferentes fuentes de riesgos fiscales y manejarlos adecuadamente.

Estrategia integral para la gestión de riesgos fiscales.

La estrategia que se ha desarrollado para la gestión de riesgos fiscales está sustentada en un enfoque integral. Por una parte, el estricto ejercicio de disciplina fiscal y estabilidad presupuestaria se han mantenido durante los últimos años para aumentar la resistencia del país a los riesgos y choques macroeconómicos. De manera conjunta se ha continuado con la aplicación de una política monetaria prudente que permite consolidar la estabilidad de precios y generar confianza a la inversión. El manejo prudente de las políticas fiscal y monetaria se ha complementado con medidas en materia de administración de deuda pública, manejo de tesorería, manejo de riesgos fiscales derivados de desastres naturales y financiamiento a entidades subnacionales, entre otras.

Administración de deuda pública.

En años recientes se han intensificado las acciones para desarrollar un mercado interno de deuda más profundo y con mayores plazos. Como resultado, actualmente las necesidades de financiamiento del Gobierno Federal se fondean principalmente en el mercado local y el plazo promedio de maduración de la deuda pública ha aumentado. Con ello, las finanzas públicas son menos vulnerables a la actual volatilidad de los mercados internacionales de capital. Al mismo tiempo, como parte de una estrategia ambiciosa de inclusión financiera, el Gobierno de México puso en marcha el programa de Cetes Directo, que tiene como propósito fomentar el ahorro de pequeños inversionistas a través de facilitarles el acceso para invertir en bonos gubernamentales, sin intermediarios, vía electrónica a través de un portal en internet. Del

mismo modo, debido a la aún fuerte participación de los ingresos petroleros en los ingresos públicos y ante la volatilidad de los precios del petróleo, el Gobierno de México continua haciendo uso de instrumentos de cobertura de precios, así como de manejo de fondos de estabilización de ingresos petroleros.

Manejo de Tesorería.

En años recientes, el Gobierno de México ha puesto en marcha medidas orientadas a continuar mejorando la eficiencia de la administración de la Tesorería de la Federación (TESOFE). Entre las medidas establecidas, se encuentran la mejora de los procesos internos de la propia TESOFE, así como la mayor y mejor coordinación entre la TESOFE y las diferentes dependencias del Gobierno Federal para centralizar los pagos y hacerlos de manera electrónica. De esta forma, una mayor eficiencia en la realización de los pagos del Gobierno Federal redunda en un fortalecimiento de las Finanzas Públicas en su conjunto. Al mismo tiempo, estas medidas también promueven el acceso al sistema y a los servicios financieros a un mayor segmento de la población a través del pago electrónico de la nómina del Gobierno, de las pensiones gubernamentales, así como de las transferencias monetarias de los distintos programas del sector público.

Administración de riesgos fiscales producto de desastres naturales.

Recientemente, se han logrado avances significativos en el diseño y la adopción de un marco institucional para hacer frente a los impactos fiscales producidos por los efectos de los desastres naturales. Además de una política de gestión de riesgo para asignar recursos del presupuesto anual a un fondo para la atención de desastres naturales, se ha reforzado la gestión del riesgo por desastres naturales a través de la clasificación de los riesgos y el uso de instrumentos de gestión más adecuados. En particular, el gobierno ha adquirido un seguro para atender eventos de alta frecuencia pero de costos económicos bajos (*stop-loss insurance*) y emitió un bono paramétrico para atender eventos de poca frecuencia y altos costos económicos (*CAT-Bond*). Adicionalmente, recientemente se publicaron las nuevas reglas de operación para el Fondo Nacional de Desastres Naturales (FONDEN) para promover la prevención de riesgos y la eficiencia de la reconstrucción.

Financiamiento a Entidades Subnacionales.

Aun cuando en términos generales el endeudamiento subnacional se encuentra en un nivel adecuado y no representa un riesgo sistémico, el Gobierno de México ha reforzado las medidas regulatorias del sistema financiero, a fin de prevenir riesgos y mantener la solidez del sistema. En particular se reforzaron las reglas de financiamiento de la banca comercial hacia Entidades Federativas y Municipios. Ello tiene como propósito desincentivar el endeudamiento subnacional excesivo mediante una mayor disciplina de mercado.

SECRETARÍA DE HACIENDA Y CRÉDITO PÚBLICO

Subsecretaría de Hacienda y Crédito Público

102-B.- 018

SHCP

Relación México-Banco Mundial.

El Gobierno de México y el Banco Mundial han mantenido una estrecha relación de colaboración. México valora los servicios financieros y de conocimiento que otorga el Banco Mundial. Por lo anterior, agradeceremos el reconocimiento de esa institución a las acciones que hemos emprendido para fortalecer el manejo de riesgos fiscales, conjunto de medidas enmarcadas en los Ejes 2 "Economía Competitiva y Generadora de Empleo" y 3 "Igualdad de Oportunidades", del Plan Nacional de Desarrollo 2007-2012. En virtud de lo anterior, me permito manifestar el interés de esta Secretaría de Hacienda y Crédito Público en suscribir un préstamo para el desarrollo de políticas que reconozca los avances en las políticas dirigidas a la gestión del riego fiscal como las descritas anteriormente.

Esperamos que esta nueva operación entre el Banco Mundial y el Gobierno de México contribuya al fortalecimiento de la relación y al intercambio de experiencias en temas relacionados con la gestión de riesgos fiscales, al tiempo que coadyuve a mejorar nuestras capacidades institucionales para hacerles frente.

Agradeciendo de antemano su atención a la presente, provecho la oportunidad para reiterarle las seguridades de mi más distinguida consideración.

Atentamente
El Subsecretario,

Gerardo Rodríguez Regordosa

CBG

C.c.p Dr. José Antonio Meade Kuribreña, Secretario de Hacienda y Crédito Público.- Presente.
Lic. Ricardo Ochoa Rodríguez, Titular de la Unidad de Asuntos Internacionales de Hacienda.- Presente.
Lic. Alejandro Díaz de León, Titular de la Unidad de Crédito Público.- Presente.

TRANSLATION OF THE LETTER OF DEVELOPMENT POLICY

ROBERT ZOELLICK
President
World Bank

Dear Mr. Zoellick:

In the current global economic environment, characterized by negative shocks to output and employment caused by the international financial crisis, commodity price volatility and increased frequency and intensity of natural disasters, there is a need to adequately tackle uncertainty and macroeconomic risks affecting public finances. As a result, the Government of Mexico has implemented a strategy to confront various sources of fiscal risk.

Comprehensive Fiscal Risk Management Strategy

Mexico's fiscal risk management strategy is based on a comprehensive approach. On the one hand, fiscal and budgetary discipline has been maintained over the past few years, increasing the country's resistance to macroeconomic shocks. On the other hand, the Government has continued with a prudent monetary policy, supporting price stability and generating investment confidence. Prudent fiscal and monetary policy management has been enhanced through proactive public debt management, Treasury management, natural disaster risk management and subnational debt management, among others.

Public Debt Management

Over the last few years, the Government has aimed to deepen the domestic debt market, while extending maturities. As a result, the current financing needs of the Federal Government are largely met in the local debt market, while the average maturity of public debt has been successfully lengthened. An improved public debt profile has reduced public finance vulnerability to international capital market volatility. At the same time, and as part of an ambitious financial inclusion strategy, the Government launched Cetes Directo, a program encouraging saving for retail investors through the direct purchase of government securities via an internet portal. Due to the significant role of oil income in public revenue and oil price volatility, the Government continues using price hedging instruments, as well as accumulating resources in the oil stabilization funds.

Treasury management

In recent years, the Government has put in place measures aimed at improving the efficiency of the Federal Treasury (TESOFE). Among the recently implemented measures are the improvement of TESOFE's internal processes, as well as the coordination and centralization of electronic payments between TESOFE and the various Federal Government agencies. Greater cash management efficiency strengthens public finances as a whole. The implemented measures also promote access to formal financial sector products and services to a larger segment of the

population through the electronic payment of government payroll, pensions, and cash-transfer programs.

Natural Disaster Risk Management

The Government has recently made significant progress in the design and adoption of an institutional framework to deal with the fiscal implications of natural disasters. In addition to allocating budget resources in a natural disaster management fund, the Government recently strengthened its natural disaster risk management strategy through the categorization of risks and the use of more adequate risk management instruments. In particular, the Government has purchased an insurance to cover high frequency-low cost events (*stop-loss insurance*) and issued a parametric bond to cover low frequency-high costs events (*CAT-Bond*). Furthermore, the National Fund for Natural Disasters (FONDEN) recently issued new rules of operation, which promote risk prevention and efficient reconstruction.

Subnational Debt Management

Even if subnational debt is at an adequate level and does not represent a systemic risk, the Government has enhanced the financial system's regulatory framework to prevent subnational financing risks and maintain the soundness of the system. In particular, prudential regulations regarding commercial bank financing to States and municipalities were strengthened, by discouraging excessive subnational borrowing through greater market discipline.

Relationship Mexico-World Bank

The Government and the World Bank maintain a close working relationship. Mexico values the World Bank's financial and knowledge services. As a result, we welcome the Bank's recognition of the actions we have undertaken to strengthen fiscal risk management, a set of actions framed in two axes of the National Development Plan 2007-2012:"Competitive Economy and Job Creation" and "Equal Opportunities". Pursuant to the above, let me express the Ministry of Finance and Public Credit's support of this loan, which recognizes implemented fiscal risk management policy actions, such as those described above.

We hope that this new operation between the World Bank and the Government of Mexico will strengthen our bilateral relationship, facilitate the exchange of experiences related to fiscal risk management, and improve our institutional capacity to address these risks.

Thank you in advance for your attention, and for the opportunity to reiterate my highest consideration.

Yours Sincerely,

Gerardo Rodriguez Regordosa
Undersecretary of Finance and Public Credit

Annex 2: Operation Policy Matrix

Progress in Policies and Institutional Reform to Achieve Policy Area Objective				
Policy Area 1: Budget Stability and Transparency				
Objective	**Key Issues**	**Prior Actions**	**Outcome Indicator (December 2012)**	**Government's medium-term reform program**
Improve fiscal and debt management practices and enhance budget stability and transparency.	Low household savings among a significant portion of the population. No direct access by retail investors to public debt instruments. The Government's multiple accounts and payment decentralization hinders transparency and cash management efficiency.	The Government launched Cetes Directo, to promote the direct purchase of government securities (valores gubernamentales) by retail investors. The Government obtained an ISO 9001:2008 certification of TESOFE's 27 operational processes governing the administration of federal funds. The Government issued a Decree which, inter alia, fosters the implementation of electronic payments through the Single Treasury Account, including the payment of pensions under the federal government's responsibility.	Number of active accounts in Cetes Directo. Base 2010: 0 Program 2012:15,000 Amount invested through Cetes Directo. Base 2010: 0 Program 2012: 1 billion pesos Annual number of payments made from the Single Treasury Account. Base 2010: 15 million Program 2012: 25 million	Adoption of a structural fiscal rule that smoothes spending and promotes saving during cyclical peaks in order to reduce the pro-cyclicality of the current rule. Adoption of a revised law permanently removing the cap on the accumulation of resources in the stabilization funds. Institutionalization of the Government's oil hedging strategy. Adoption of a new Treasury Law.

Policy Area 2: Natural Disaster Risk Management				
Objective	**Key Issues**	**Prior Actions**	**Outcome Indicator (December 2012)**	**Government's medium-term reform program**
Improve the Government's ability to respond to natural disasters and mitigate the impact of natural disaster costs on the budget.	Reconstruction activity is often slow, while States don't take responsibility for their share of the work.	The Government issued an Agreement (*Acuerdo*) and FONDEN rules of operation to allow the States and Federal Government to independently finance and manage the reconstruction of State level infrastructure. The Government purchased an indemnity-based insurance to cover FONDEN's excess losses caused by natural disaster events.	Average time between the declaration of a natural disaster and access to FONDEN resources for infrastructure reconstruction. Base 2010: 45 days Program 2012: 28 days Number of reconstruction programs closed within each fiscal year as a percent of total open programs. Base 2010: 26% Program 2012: 35%	Development and adoption of an integrated strategy for managing natural-disaster related risk.
Policy Area 3: Subnational Debt Management				
Enhance fiscal and debt sustainability of state and municipal governments.	A rapid increase in subnational debt, in particular short-term debt, and lack of transparency in debt data cloud the size of the contingent liability.	The Government issued a resolution, which links prudential reserve requirements for lending to Subnational Entities to a comprehensive set of indicators.	Percent of registered debt as a percent of total debt. Base 2010: 86.5% Program 2012: 93%	Local revenue enhancement and reform. Completion of implementation of accounting harmonization among the federal, state and municipal levels of the executive branch of government and enhanced transparency in subnational public accounts.

Annex 3: Fund Relations Note

IMF Executive Board Completes Review of Mexico's Performance Under the Flexible Credit Line

Press Release No. 11/480
December 22, 2011

The Executive Board of the International Monetary Fund (IMF) completed on December 21, 2011, its review of Mexico's qualification for the arrangement under the Flexible Credit Line (FCL) and reaffirmed Mexico's continued qualification to access FCL resources. The Mexican authorities have indicated that they intend to continue treating the arrangement as precautionary.

The two year arrangement for Mexico for SDR 47.292 billion (about US$73 billion), approved in January 10, 2011 (see Press Release No. 11/4), was the first under the reforms to the FCL approved in August 30, 2010 (see Press Release No. 10/321).

Following the Executive Board discussion of Mexico, Mr. David Lipton, First Deputy Managing Director and Acting Chairman of the Board, made the following statement:

"The Flexible Credit Line (FCL) arrangement for Mexico, approved a year ago in a context of heightened risks to the global economic outlook, has played an important role in supporting the authorities' overall macroeconomic strategy, providing an insurance against global tail risks and bolstering market confidence. Today, the Executive Board reaffirmed that Mexico continues to meet the qualification criteria for access to FCL resources.

"Mexico's rapid rebound from the global crisis and the resilience of economic activity in recent months bear witness to Mexico's sound fundamentals and skillful policy management. The strong policy track record and frameworks, including a balanced-budget rule, a credible inflation targeting regime, and prudent financial oversight, have underpinned sound public and private balance sheets.

"The authorities are committed to rebuilding policy buffers gradually in light of heightened global risks. Fiscal consolidation and supportive monetary policy are poised to be maintained, while the increase in external buffers is being complemented by the FCL arrangement. The floating exchange rate regime will continue to play a key role in buffering external shocks.

"Downside risks to Mexico's near-term outlook arise from unsettled global growth prospects and the turbulence in international financial markets. However, Mexico retains policy space to contain the potential fallout from external shocks, supported by the FCL arrangement, and the authorities remain committed to the rules-based macroeconomic framework and to adjust policies as needed," Mr. Lipton said.

IMF EXTERNAL RELATIONS DEPARTMENT

Public Affairs	**Media Relations**
E-mail: publicaffairs@imf.org	Phone: 202-623-7100
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The IMF Staff Report for Mexico on the Review Under the Flexible Credit Line Arrangement is available at http://www.imf.org/external/pubs/ft/scr/2011/cr11367.pdf

Annex 4.a.: Budget Stability and Transparency

94. **Prudent fiscal policies and improved public liability management have reduced expenditure volatility.** Since 2006, fiscal policy has been guided by the balanced budget rule and medium-term budgetary framework imbedded in the Fiscal Responsibility Law (FRL). The FRL institutionalized Government efforts to contain fiscal deficits and stabilize debt levels, while supporting accountability and transparency in the annual budget process. In addition to the establishment of a balanced budget rule, the law also introduced a formula for calculating the oil price in budget projections, and established four excess oil-revenue stabilization funds. The stabilization funds, in combination with the Government's hedging program[23], moderate inter-annual budget deviations produced by sharp swings in oil prices and/or other external shocks. The current balanced budget rule has served well to build credibility.

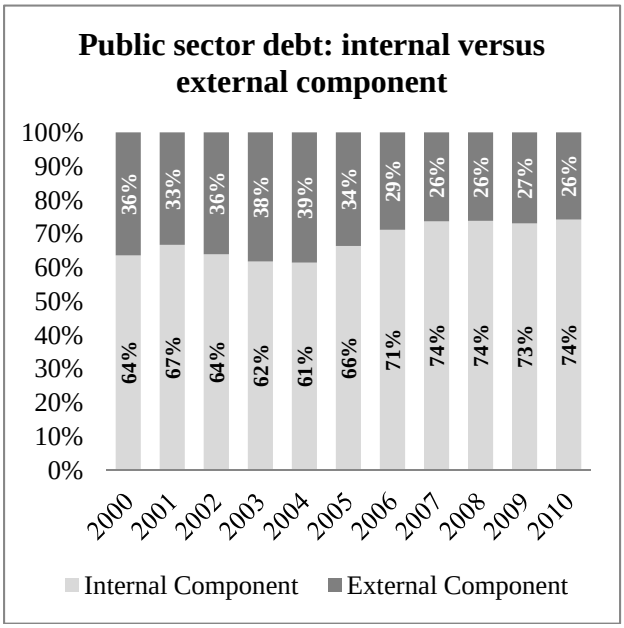
95. **Risk management measures are essential to minimize the impact of shocks on revenue and expenditure.** Revenue is vulnerable to economic downturns and sharp swings in the oil price, as oil receipts account for approximately one-third of federal income. Government outlays are susceptible to unexpected macroeconomic fiscal risks arising from debt service increases due to interest rate and/or exchange rate movements, and other fiscal risks such as natural disasters and banking sector crises. As the FRL does not allow for a deviation in the overall budget balance, revenue reductions or specific program expenditure increases must be offset by decreases elsewhere or result in the loss of credibility associated with a budget amendment. As a result, during the recent financial crisis the Government had to balance the objectives of supporting economic activity and maintaining fiscal credibility. Mexico's demonstrated commitment to fiscal consolidation reinforced the country's positive macroeconomic performance and was an important indicator for financial markets and international credit rating agencies.

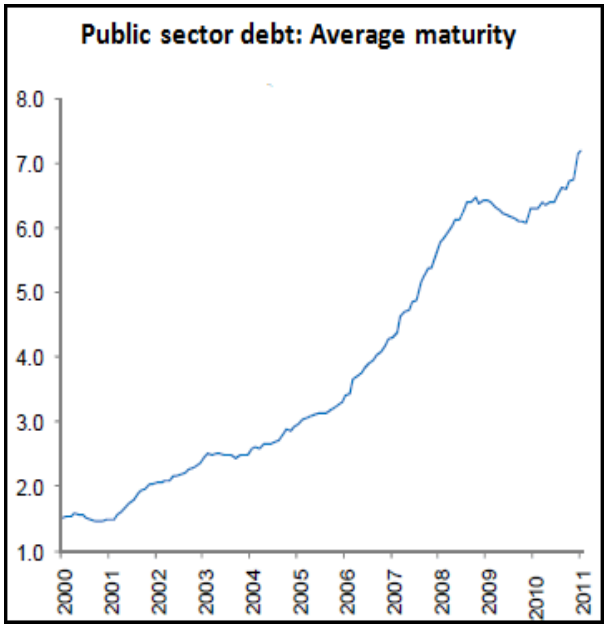
96. **Mexico's oil-revenue stabilization funds and the Government's hedging program protect public spending by establishing a fiscal buffer.** Excess revenue relative to budgeted amounts is accumulated among four stabilization funds—an Oil Stabilization Fund (40 percent), a PEMEX Investment Fund (25 percent), a State Stabilization Fund (25 percent) and a State Infrastructure Fund (10 percent). If in any year total revenues are less than budgeted as a result of lower oil prices or exchange rate effects, the oil stabilization fund may transfer resources to the budget or to Pemex to cover the shortfall. However, caps of 1.5 percent of GDP on the accumulation of resources in the stabilization funds weaken their ability to act as fiscal buffers and to countervail the pro-cyclicality of the balanced budget rule.[24] In 2010-2012, the Government temporarily lifted the caps on the accumulation to promote savings. A permanent elimination of these caps would be appropriate.

[23] Authorities hedge from oil price volatility by using resources from the oil stabilization fund to purchase put options. The strike price of the options is close to the oil price that would ensure the budgeted amount of oil-related revenues needed to finance public expenditures (for 2011 US$63 a barrel). This avoids the need to reduce planned spending if the price of exported oil were to fall below the budgeted price.

[24] Booming oil revenues during 2003–08 underwrote average annual growth in real primary spending of 7 percent as savings in oil stabilization funds were capped.

97. **A strengthened public debt profile limits public finance vulnerability to short-term macroeconomic fiscal risks.** The substitution of external for domestic public sector debt, and the phase out of currency-linked and increase in fixed rate debt instruments have been integral to Mexico's debt management program, and reduced vulnerabilities associated with exchange and interest rate movements. The lengthening of the average maturity of local Government bonds, to 7 years in 2011 from 1.5 in 2000, has reduced financing risk and broadened the investor base. In October 2010, the Government sold US$1 billion in bonds with maturity of 100 years, the first of its kind in Latin America.





98. **In 2010 the Government began using bond syndications in order to deepen the domestic debt market, and as a growing alternative to bank funding and international capital markets.** Syndication is different from a normal bond auction in that banks are employed to underwrite the issue and encourage investor demand. This strategy guarantees the sale of a larger amount of peso-denominated bonds upfront, which promotes liquidity in the bond market, accelerates the establishment of domestic benchmark bonds, expands the investor base, and boosts eligibility in a number of fixed income indices. In October 2010 Mexico became the first Latin American country to be incorporated in Citigroup's World Government Bond Index (WGBI).[25] The country's admission reflects successful macroeconomic policies and advancements in the performance of the local debt market. Within the 5 months following Mexico's admission, foreign investment in government bonds had increased by more than 11 percent.

[25] Mexican local markets have also been incorporated in the most important global fixed income indexes: JP Morgan Broad Index (January 2003), Merrill Lynch Global Broad Market Plus Index (June 2003), and Lehman Global Aggregate Index (January 2005).

99. **The launching of Cetes Directo, a program promoting the direct purchase of government securities by retail investors advances the Government's effort to broaden the investor base.** The traditional method for issuing government debt is through auctions open just for wholesale investors and financial intermediaries. Retail debt gives small investors the opportunity to buy government securities at a lower cost without intermediaries, while diversifying the source of government funding. The incorporation of a large, diversified and largely untapped investor base could over time lower the cost of public sector borrowing and reduce capital flow volatility. Furthermore, the program promotes transparency and accountability of the Government's debt management policies.

100. **Retail debt programs and their contribution as a percent of total government debt vary widely worldwide.** A number of countries have instituted retail debt programs, where public securities are sold directly to individual investors, and whose main aim is to offer investors low cost alternatives while diversifying the country's investor base. However, retail debt programs often vary in secondary objectives, organizational setup, products offered, and distribution channels. Despite impressive retail investor growth in a number of countries, the value of retail debt as a percent of total government debt varies significantly depending on the country. While in a number of European countries the percentage is quite high: Ireland (14.9), Italy (20.2), Portugal (15.9), and the U.K. (13.10), in others countries the contribution of retail debt is significantly smaller: Canada (4.1), Hungary (4.5), South Africa (.55), Brazil (.17) and the U.S. (2.45). For Cetes Directo to reach the same level as Brazil, the retail investor platform would need an increase of approximately 5.6 billion pesos (US$ 400 million).[26]

101. **The Brazilian retail debt program, *Tesouro Direto*, reveals the potential of *Cetes Directo*.** The *Tesouro Direto* program had approximately 5,900 investors in year one (by end December 2002), with the number increasing dramatically in the second year to 21,000 investors. Expansion was not as remarkable in the following years but still strong, reaching 145,000 investors by the end of 2008 (*Tesouro do Brasil*, 2011). Growth slowed in the aftermath of the financial crisis but was still in the 20 percent range for 2009 and 2010. Preliminary evidence from 2011 shows a slight increase in growth, with the number of investors amounting to just under 264,000.

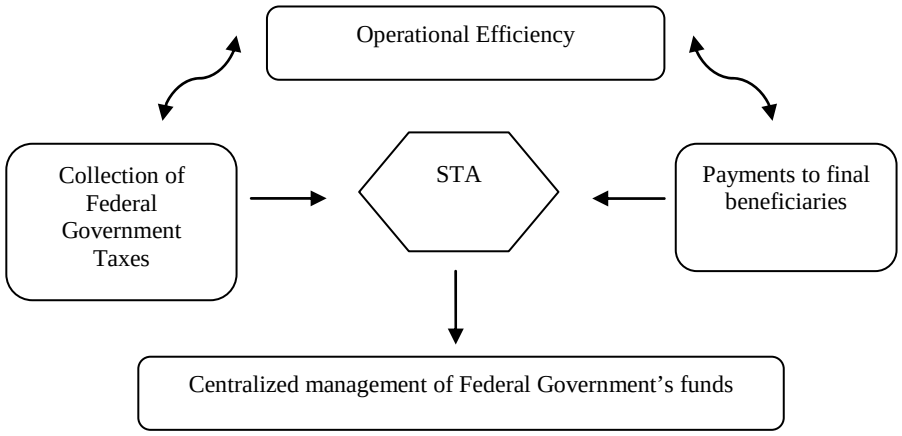
102. **Savings through Cetes Directo provides individuals with an additional instrument against temporary shocks to income by supporting consumption smoothing.** One of the objectives of Cetes Directo is to foster a culture of savings and provide a secure investment for individuals with a low capacity to manage risk. The Government recently reduced further barriers to entry by instituting a new and easier method for opening a Cetes account for low transaction value accounts in the hopes of further democratizing access.

103. **A description and detailed analysis of the Single Treasury Account is provided in Annex 4b.**

[26] After a year of operating investment amounted to approximately 478 million pesos.

Annex 4.b. The Single Treasury Account

104. **The Single Treasury Account (STA) is a unified structure of government bank accounts that provides a consolidated view of government cash resources.** The STA is managed by the Treasury of the Federation (TESOFE, by its Spanish acronym), a unit of the Secretariat of Finance and Public Credit (SHCP). The establishment of a STA improves cash management and control, lowers borrowing costs, and facilitates fiscal and monetary policy coordination. As presented in the flow chart below, the overall objective of the STA is to achieve operational efficiency in the administration of the Federal Government's funds through a centralized cash management system.



105. **Before the establishment of a STA, Federal Government funds were managed in segregated banking accounts**. During 2007, TESOFE initiated a strategic plan for the modernization of the Government's banking arrangements, including the preparation of a cross-country best practices benchmark analysis, and a diagnostic of the functions, processes and systems used by TESOFE in its operations. As a result of the assessment, four main areas were determined for TESOFE's strategic modernization plan: (i) Development of a STA system, (ii) Creation of an accounting system for the management of Federal Government funds, (iii) Certification of TESOFE's processes according to the ISO-9001:2008 methodology, and (iv) Issuance of a new regulatory framework for TESOFE.

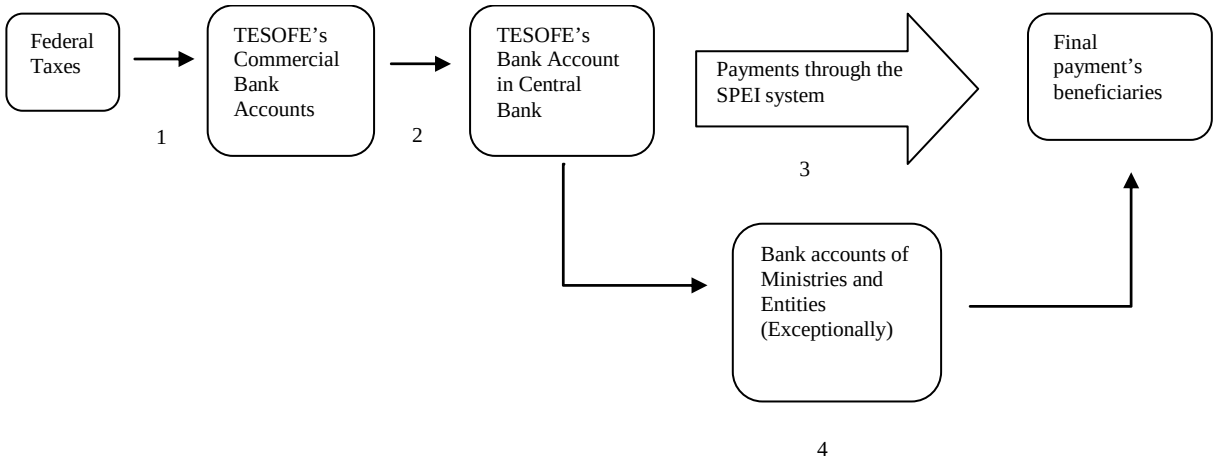
106. **TESOFE's legal framework was modified as part of the modernization process.** The main regulatory modifications include:

- Modification of Article 51 of the *Ley Federal de Presupuesto y Responsabilidad Hacendaria* (the Federal Budget and Fiscal Responsibility Law - LFPRH) on October 1, 2007, in order to establish: (i) TESOFE's responsibility for the collection and payment of all Federal public administration ministries ("*Dependencias*", according to the Spanish definition included in the LFRPH), (ii) a Single Treasury Account; obligatory for "*Dependencias*" and Federal Public Parastatal Entities ("*Entidades*", according to the Spanish definition included in the LFRPH).[27]

[27] For the purposes of this document, "Dependencias" and "Entidades" will be identified as Public Entities.

- SHCP's issuance of guidelines for the operation of the STA[28] on December 24, 2009, including procedures for opening bank accounts in the name of TESOFE, and in exceptional cases, in the name of Public Entities.[29]
- Regulation establishing that all Public Entities adopt electronic payment programs through the STA by December 2012, as published in the official gazette on December 7, 2010 and included in the 2011 Budget Law of Expenditures of the Federal Government (*Ley del Presupuesto de Egresos de la Federación*.- LPEF).

Flow of funds: The following chart describes the STA flow of funds:



(1) Federal Government's taxes are deposited into 18 commercial banking accounts in TESOFE's name.
(2) TESOFE transfers the funds into its account at the Central Bank (*Banco de Mexico*).
(3) As per instructions by the public entities, TESOFE makes all payments to the final beneficiaries through the Central Bank SPEI (*Sistema de Pagos Electrónicos Interbancarios*) system.[30]
(4) In exceptional cases TESOFE allows public entities to maintain their own bank accounts for beneficiary payments.

107. **Since establishment of the STA, several advances have been made:**

- Sixty-eight percent of funds are now collected through the STA. Nearly all the "*Dependencias*" are integrated in the STA system, while transactions by state-owned enterprises ("*Entidades*"), accounting for 29 percent of total funds, are not yet included.
- In the case of payments, the situation is similar, with *Entidades* still not included in the STA system, though accounting for 25 percent of the total amount of expenditure.

108. **Advancements in the implementation of the STA system have had a considerable impact on TESOFE's operational capacity.** By 2010 more than 70 percent of the public

[28] Issued in the official gazette.
[29] When there is a clear justification and with TESOFE's authorization.
[30] SPEI is the acronym for "*Sistema de Pagos Electrónicos Interbancarios*" (Electronic Interbank Payment System).

budget was channeled through the STA system. On the collection side, the number of operations has increased from 4.6 million in 2007 to 29 million in 2010, and on the payments side from 1.6 million to 15 million transactions over the same timeframe. Since initial implementation, the new scheme has generated savings for the Federal Government of US$139 million. In order to further strengthen its operational capacity, TESOFE undertook the following actions:

- Establishment of 4 new systems for collection control.
- Inclusion of 6 new modules into the SIAFF system (*Sistema Integral de Información Financiera*- Integrated Financial Information System), used to process payments.
- Improvement of TESOFE's accounting system[31], including the facilitation of (i) automated reconciliation of operations with commercial banking institutions, (ii) automatic on-line accounting registration of operations according to a pre-defined chart of accounts, (iii) control of operations including several levels of sub-accounts, (iv) issuance of automatic financial reports, and (v) monitoring of activities performed in the system.

109. **Additional steps in TESOFE's modernization plan include the certification of its processes according to the following standards issued by the International Organization for Standardization (ISO)**: ISO-9001:2008, which provides a set of standardized requirements for quality management systems.[32] In 2011 TESOFE certified 27 processes, out of which 12 belong to the Under-Treasury of Operations (*Subtesoreria de Operación*), 7 to the Under-Treasury of Accounting and Operational Control (*Subtesoreria de Contabilidad y Control Operativo)*, 4 to the Funds and Securities Oversight Unit (*Unidad de Vigilancia de Fondos y Valores)*, 3 to the Legal Procedures General Directorate (*Dirección General de Procedimientos Legales*), and 1 to the Administrative Coordination Unit (*Coordinación Administrativa*). Overall, the certification program has improved operational process transparency, process automation, business continuity, and information security.

110. **As noted earlier, TESOFE will continue the roll out of the STA system through 2012.** The Government established in the 2011 LPEF that all *Dependencias* and *Entidades* should liaise with the SHCP to prepare and implement working programs to complete the roll out of the STA system by August 2012, through the inclusion of the following operations:

- Revenue collected by the *Entidades*, and other contributions directly collected by *Entidades* and *Dependencias*, such as Foreign Trade Contributions (3 percent of total funds), must be incorporated into the STA system.
- Expenditures incurred by the *Entidades*, and *Entidades* and *Dependencias*, such as government employee payroll[33], government program beneficiary payments, pension funds, public trust funds, and ministration agreements[34] must continue to be incorporated into the STA system. The 2012 budget also added the incorporation of federal government pension payments to IMSS and ISSSTE to the STA.

[31] SICOFE (*Sistema Integral de Contabilidad de Fondos Federales*.- Integrated Accounting System for Federal Funds)
[32] On October 27, 2011 the firm SGS, determined that TESOFE complied with the ISO 9001-2008 quality guidelines.
[33] As of July 2011 the employees of 895 sector public entities (including *Dependencias* and *Entidades*) had already been included into the STA system (i.e. receive their payroll through the STA), out of a total of 1,109 entities. The remaining 214 entities will be incorporated gradually until August 2012, as established by the Law.
[34] A Ministration agreement is a mechanism established in Article 46 of the LFPRH which allows *Dependencias* and *Entidades*, which are facing extraordinary resource needs, to request an advance of funds to the SHCP in excess of its approved budget, which is supposed to be regularized in its regular budget the following fiscal year.

111. **Expected benefits of the STA system include:**

- Reduction of financial costs associated with the management of multiple bank accounts.
- Maximization of the opportunity cost of cash management.
- Promotion of financial sector penetration through the incorporation in the banking system of all Federal Government payment beneficiaries, such as providers of goods and services, government program beneficiaries, and government employees, among others.
- Oversight improvement of Federal Government Program beneficiaries (such as *Oportunidades, Procampo,* etc.)
- Efficient payment mechanism facilitation.
- Enhancement of resource flow transparency.
- Improvement of operational control during budget execution.
- Strengthened negotiating position with commercial banks.

112. **A key element of TESOFE's modernization plan is the issuance of a draft Treasury Law reflecting the operational, technical and institutional changes.**[35] The draft Law has already been elaborated; however the completion of this task during the current administration is not certain, as it depends on political factors outside the control of TESOFE. The draft Law has the following features:

- It is based on international best practices, and aims to improve transparency and efficiency in the financial management of government funds. It is more concise than the previous Law, with 64 versus 134 articles.
- It is aligned with all the legal requirements related to treasury functions that have been issued in different laws (e.g. LPEF, LFPRH, and Official Gazette, among others) after its latest modification in 2007.

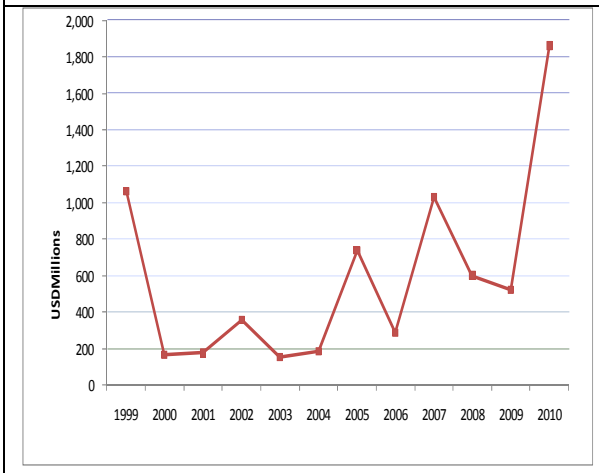
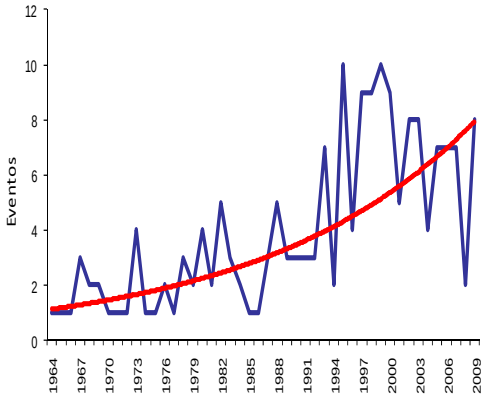
[35] The latest version of the Treasury Law was issued in December 1985, and modified on four occasions: 1995, 1998, 2000 and 2007.

Annex 4.c.: Natural Disaster-Related Fiscal Risk

113. **Natural disaster risk is high in Mexico.** Mexico is highly vulnerable to a number of natural hazards, with approximately 41 percent of Mexico's territory and 31 percent of its population exposed to hurricanes, storms, floods, earthquakes and volcanic eruptions. In economic terms, this translates into 30 percent of GDP at risk from three or more hazards and 71 percent at risk from two or more hazards. Population growth and increased concentration of physical assets in highly exposed areas has led to increased vulnerability to adverse events, while unplanned and unregulated land use, lack of environmental controls and poor application of building standards exacerbates asset losses. Climate change will likely increase the number and frequency of hydro-meteorological hazards in Mexico.

114. **Natural disasters often lead to sudden, largely non-budgeted fiscal pressures for emergency relief and reconstruction activities.** In particular, large catastrophic risks pose a major challenge for public finances and for debt sustainability. Natural disasters impact budgeted expenditure and revenue flows. Expenditures are impacted through short term pressures for immediate disaster relief activities and in the medium to long-term through government financed reconstruction and improvement activities. The impact on revenue depends on the macroeconomic dynamics following the shock and the structure of public revenue sources (i.e. income tax, property tax, oil revenue, etc).

115. **The *2011 Global Assessment Report on Disaster Risk Reduction* (ERN) estimated contingent liabilities of natural hazards in Mexico.** The value at risk is computed by multiplying the value of assets exposed (infrastructure under Government responsibility) by the probability of a disaster event. According to the report, the annual expected loss from earthquakes is US$157 million and US$646 from hurricanes. Overall, the annual expected loss from natural disasters is US$803 million.

Figure 1. Natural Disaster Fund (FONDEN) Annual Expenditures (USD millions)	Figure 2. Natural Disasters in Mexico (1960–2009)
	
Source: FONDEN	Source: Centro de Investigación sobre Epidemiología de los Desastres, Universidad Católica de Lovaina

116. **Natural disaster financing is achieved through various ex-ante and ex-post measures.** Budget contingencies and reserves are the least expensive ex-ante risk financing source and are usually used to cover high frequency-low cost events. Loss financing resources, such as contingent credit lines, emergency loans, and insurance products provide ex-post financing. Low frequency-high cost disasters are best addressed through risk transfer instruments such as CAT bonds and catastrophic risk insurance. A comprehensive assessment of a country's fiscal exposure to natural disasters can identify the optimal combination of risk retention, contingent financing and risk transfer mechanisms to reduce public finance vulnerability. Mexico is gradually moving from an ex-post response to natural disasters to an ex-ante preparedness approach.

117. **The Federal Government has pursued an integrated approach to disaster risk management, involving the assessment, prevention, and transfer of fiscal risks.** The current risk financing strategy includes a variety of financing components, ranging from exceptional budget financing and prevention through build-back-better schemes to private risk transfer instruments such as specific sector insurance policies, reinsurance and catastrophe bonds (see Figure 4). Assessment of the Federal Government's infrastructure at risk has facilitated the transfer of some of Mexico's low frequency-high cost natural disaster risk through a number of insurance products described below.

118. **The National Fund for Natural Disasters (FONDEN), a key player in Mexico's disaster risk management strategy, was established in 1996 to support natural disaster emergency response and reconstruction.** FONDEN protects the Mexican population (through immediate relief response), its public assets (through reconstruction financing), and (uninsured) low-income housing from disasters that exceed Federal and State governments and agencies financial response capacity. It is jointly managed by the Ministry of Interior (SEGOB) and the Ministry of Finance (SHCP) and uses various instruments to support federal and state governments and federal agencies response to natural disasters, including reserve funds and risk transfer solutions.

119. **FONDEN, a multi-annual trust fund, receives an annual budget allocation to assure the availability of at least 0.4 percent of total programmable public expenditure at the beginning of each fiscal year.** As there is variability in disaster intensity and occurrence from year to year, FONDEN manages its resources through a multi-annual Trust Fund, which eliminates the need to spend the full allocation each year, thus creating a stabilization mechanism. Although this increases the flexibility of FONDEN resources, the amount available for recovery has proven inadequate to cover growing financial needs, as in reality the annual budget allocation raising the available resources in the fund to 0.4 percent of total programmable public expenditure at the beginning of each budget year has *de-facto* become a cap on the accumulation of resources. If the resources allocated to FONDEN are exhausted or prove insufficient during periods of high disaster activity (such as 2010), Article 19 of the Federal Budget allows for exceptional budget financing.

120. **In 2006, the Government issued a US$450 million risk transfer instrument (CatMex) to transfer some of Mexico's earthquake risk to the international capital markets.** CatMex

provided protection for three years against earthquakes in specific zones of the Mexican territory by combining parametric reinsurance policy (US$290 million) and catastrophe bond coverage (US$160 million). After the CatMex matured in 2009, Mexico further diversified its coverage by pooling multiple risks in multiple regions. In October 2009, it issued a multi-peril three year (2009-2012) Cat bond using the World Bank's newly established MultiCat Program, which enables the pooling of perils across multiple regions to reduce insurance costs. The MultiCat bond protects against hurricanes and earthquakes of a predetermined magnitude and covers two of the most exposed zones in the Pacific Coast and one in the Atlantic Coast.

121. **In 2011, FONDEN reformed its operating rules to more efficiently allocate fund resources by allowing Federal and State Governments to independently finance and manage reconstruction activities.** Previously, Federal and State contributions were placed in a common financial vehicle from which all expenditures were paid once both entities had committed the necessary funds. This caused reconstruction delays since States often had difficulties in providing funding. Under the new scheme, the federal government is responsible for the full reconstruction of damaged federal infrastructure and for fifty percent of the affected State infrastructure, with the State responsible for the remaining half. It is hoped that the new rules will improve local government risk management by encouraging vulnerability reduction and risk financing mechanisms at the local level, since there are incentives for the States to independently insure and improve local infrastructure. Additional improvements in the rules include an increase in the allocation of funds for preventative activities and measures through the merging of the two existing preventive funds (FIPREDEN and FOPREDEN). This will increase financial support for State level preventative projects and the development of risk financing and transfer mechanisms at the local level. The new rules and guidelines also strengthen transparency, efficiency and effectiveness of federal spending.

122. **The new rules of operations allow FONDEN to reduce the average time between the request and the allocation of reconstruction funds.** Based on existing FONDEN indicators the average time between a request and fund allocation in 2010 was 45 days.[36] However, it is important to highlight that the time between the request and allocation of reconstruction funds is also a function of the type and size of the natural disaster event. Large floods, like those that occurred in 2010, delay damage assessments and in turn slow down the allocation process. The reform of the rules of operation significantly simplify FONDEN procedures and speed up the process of reconstruction funds allocation. According to FONDEN, the time between request and allocation of funds should decrease to 28 days by December 2012.

123. **The separation of responsibilities between the Federal and the State government for the reconstruction of State-level infrastructure will allow for better management of the reconstruction process.** Under the new scheme, the States will be held accountable for the reconstruction of their own infrastructure. Moreover, the reconstruction of the fifty percent of State infrastructure managed by the federal government will face less delay. Overall, the new scheme will improve reconstruction efficiency. Higher efficiency should be reflected by a reduction in the reconstruction period. An indicator that is used by the FONDEN General Directorate to measure the progress on reconstruction programs is the percentage of programs

[36] Plan Sexenal 2009-2012 de la Dirección General del FONDEN. Evaluación, Control y Seguimiento Institucional 2008-2012. Anexo I. Cuaderno de Resultados e Indicadores 2008, 2009, 2010, 2011.

closed during a given fiscal year with respect to the number of programs open at the beginning of the same fiscal year. In 2010 this percentage was 26 percent. As a result of the new co-sharing scheme, it is expected that the percentage will increase to 35 percent by December 2012.

124. **In June 2011 the Federal Government successfully concluded the placement in the reinsurance market of a stop-loss insurance against catastrophic events.** The reinsurance is triggered when the resources allocated to FONDEN (MX12.5 billion or US$1 billion) result insufficient to pay the costs associated with reconstruction. The insurance would provide up to MXN4.8 billion (US$390 million) to finance reconstruction without the need to allocate extraordinary resources from the budget or cut funds assigned to other important programs.

Figure 3. Financing gap: Difference between FONDEN budget allocation and total expenditures (in million of US$)

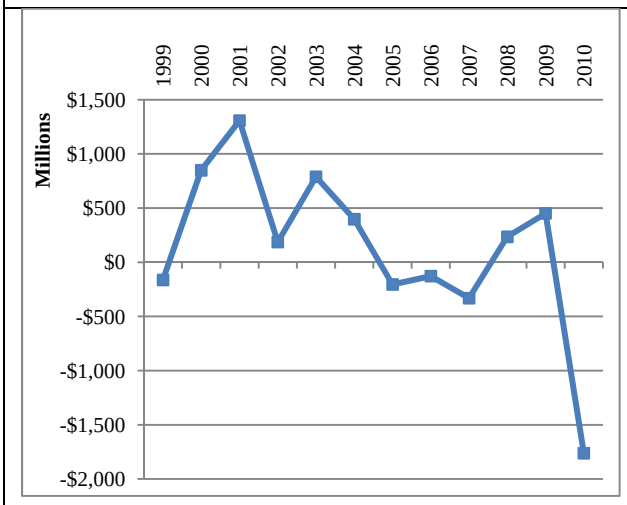
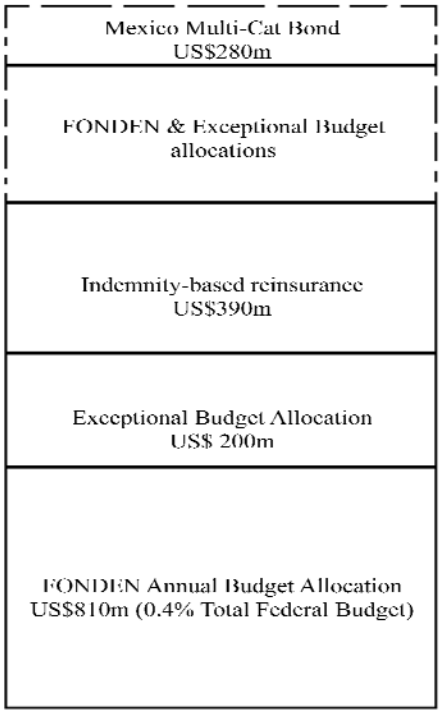


Figure 4. Mexico's Financial Protection Strategy against Disasters (in US$)



125. **In an effort to protect FONDEN resources and promote risk sharing, FONDEN regulation is encouraging local governments to develop a comprehensive risk management strategy.** The transfer of natural disaster risk through specific sector and/or local Government insurance policies would further decrease disaster fiscal risks on the federal Government. A subordinate level insurance would ensure an additional layer of protection before the release of FONDEN reconstruction resources. Several federal agencies such as the CONAGUA[37] (responsible for the water, sanitation, and hydraulic infrastructure at federal level), SEP[38]

[37] Comisión Nacional del Agua
[38] Secretaría de Educación Pública

(responsible for public schools and educational institutions), and the Ministry of Health have already contracted insurance as a first layer of protection against disasters. FONDEN is also promoting the establishment of local disaster funds, in order to further decentralize natural disaster emergency response and reconstruction financing, and encourage States to take more responsibility for their infrastructure. Ultimately, FONDEN is aiming towards a decentralized disaster risk management system where local governments have strong incentives to invest in risk reduction, moving away from the current system whereby the federal government finances most of the reconstruction.

126. **Moving forward more effort on prevention is needed at the three levels of Government to reduce the fiscal and human costs of natural disasters.** Until now, limited resources have been applied through FOPREDEN, with the vast majority of budget allocations used for post-disaster reconstruction. However, increased attention is being placed on ensuring that reconstruction activities 'build back better', reducing the exposure of public assets to disaster risks. Better urban planning and settlement regulation, improved and enforced construction codes, and increased public education and awareness would also reduce the costs of natural disasters.

Annex 4.d. Subnational Debt Management

127. **Mexico's federalism is characterized by high vertical fiscal imbalances.** Progressive revenue centralization at the federal government level, coupled with expenditure decentralization at the subnational level has resulted in a high dependence on federal transfers and low tax effort by subnational governments. Transfers from the federal government represent the largest source of funds for subnational governments at approximately 82 percent of total revenue, and are made up of tax revenue shares (*participaciones*)[39] representing about 32 percent of revenue, and expenditure-specific or earmarked grants (*aportaciones*) at 50 percent of revenue. Subnational governments raise approximately 10 percent from internal sources, 4.4 percent from financing and the remainder from other sources.[40] Though effective development and poverty alleviation often hinge on improved subnational growth and service delivery, fiscal decentralization can weigh on a government's budgetary balances and create significant contingent liabilities for the Federal government, impact growth and jeopardize sovereign ratings.

128. **Subnational government revenue was hard hit by the 2008 crisis**. *Participaciones* experienced a 16 percent drop in 2009, due to the fall in economic activity and a significant drop in oil prices. The federal government addressed the shortfall by transferring resources from the FEIEF (*Fondo de Estabilización de los Ingresos de las Entidades Federativas*) to the States and Municipalities through a securitization of future flows to the FEIEF.[41] [42] As reflected in Figure 1, the surge in borrowing as of 2009, led to a significant increase in subnational debt, even excluding FEIEF resources. Though the stock of subnational debt in Mexico is only 2.5 percent of GDP, it amounts to 72 percent of annual non-earmarked transfers (*participaciones*).

129. **In 2009, the Government modified bank prudential regulations, which facilitated access to finance for subnational entities.** The modification of bank prudential regulations encouraged short-term borrowing. While long term borrowing remained regulated by a quasi-market mechanism, which required approval by state legislators, registration with the federal government, and often counted on *participaciones* as collateral, rules on short-term borrowing were substantially eased. In particular, short-term debt was exempted from a higher risk rating and the need to establish prudential reserves.[43] As a consequence, short-term debt increased significantly during the last two years (see Figure 2). The rapid accumulation of short-term liabilities resulted in unsustainable debt levels and fiscal problems in some States.

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[39] General transfers.

[40] The data was obtained from INEGI, which compiles data from the states and municipalities, and includes 2009 and 2010 revenue flows.

[41] The Federal Government established the FEIEF in 2005. As the resources in the Fund (22 billion pesos) were insufficient to address the 2009 *participaciones* shortfall (of around 70 billion pesos), the Government designed a financial scheme to securitize future flows of the FEIEF, leading to commercial and development bank's lending 40 billion FEIEF collateralized pesos to subnational governments. The additional resources cushioned the fall in revenue, with *participaciones* amounting to only 2 percent below budget expectations. FEIEF resources are not included in the stock of subnational debt displayed in Figure 1.

[42] The Mexican Constitution allows subnational government borrowing in domestic currency and from Mexican residents only and restricts the use of funds obtained from borrowings to productive investments.

[43] State legislatures have the right to define what constitutes debt and thus what needs to be approved by their local Congress. Most states do not consider liabilities whose maturity is less than a year as debt.

Fig. 1 Subnational debt as a percentage of GDP and Participaciones

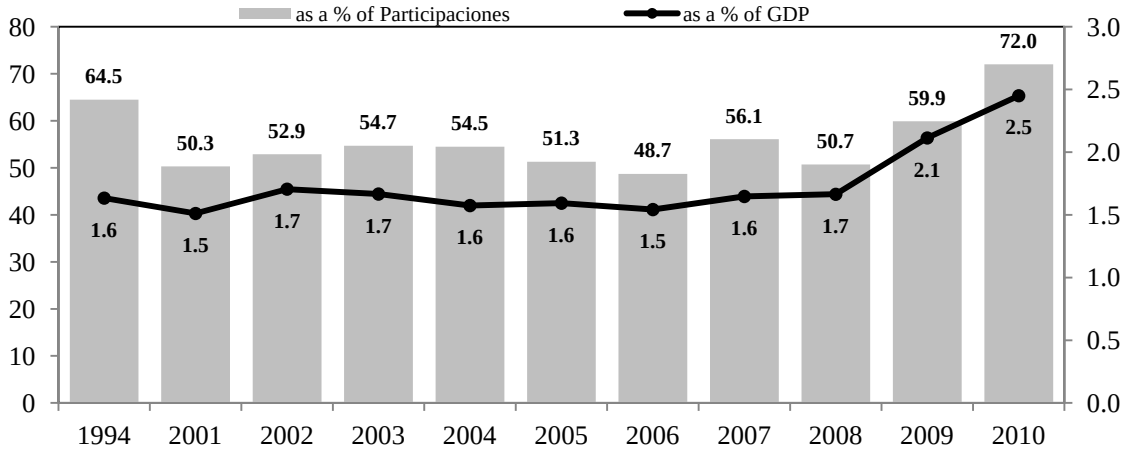
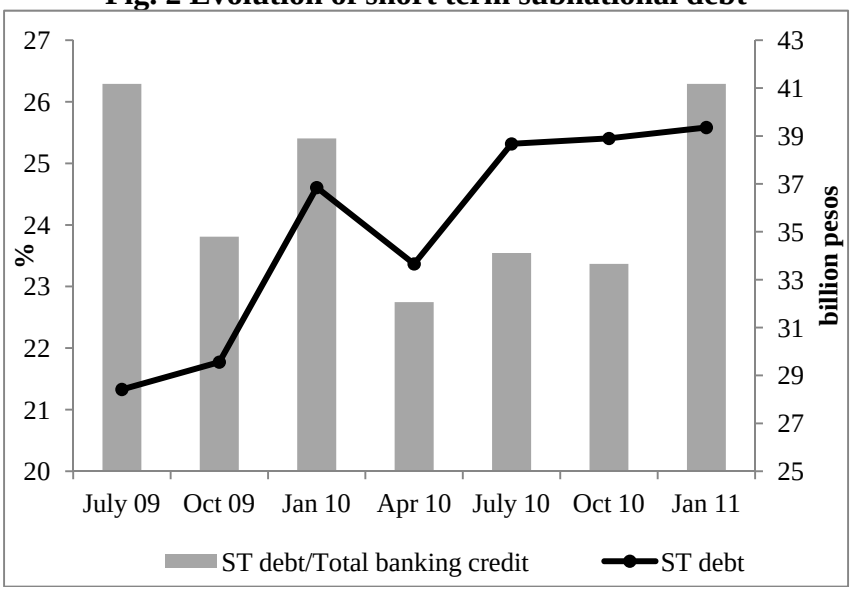


Fig. 2 Evolution of short term subnational debt



130. **Short-term debt was not always included in the federal debt registry resulting in growing discrepancies between reported and actual subnational debt.**[44] According to the ministry of Finance, States had 363 million pesos of debt of which only 314 million pesos were registered with the federal government.[45] The difference between these figures suggests a relevant amount of short-term debt additionally accumulated and unaccounted for in the subnational debt registry. The States with the highest discrepancy, in terms of percent of unregistered debt, are Coahuila, Chihuahua, Michoacán, Tabasco and Zacatecas (see Table 2). The financial distress of the state of Coahuila in 2011 took the authorities and market

[44] The definition of short-term debt in terms of maturity–less than 180 days–is based on the banking prudential regulation. State public debt laws contain different definitions for short-term credits from financial intermediaries such as credits that have to be paid before the end of the fiscal year or before the end of the term of the current administration.
[45] As of March 2011.

participants by surprise, in part because there was misreporting and underreporting of the State's debt and possibly fraud, and also because these loans were not considered when monitoring loan concentration.

131. **An incomplete picture of subnational entities liability position heightened fiscal risks and raised questions regarding the existing borrowing framework.** Credit ratings were used by bank regulators to assign capital risk weightings and prudential reserves for bank loans to subnational governments. This regulatory framework encouraged states and larger municipalities to obtain credit ratings, by one of the four approved rating agencies in Mexico—Standard and Poor's, Fitch, Moody's and HR Ratings. However, the over dependence on rating agencies and relaxing of regulations concerning short-term debt reduced due diligence by some financial institutions, led to high lending concentrations, and heightened fiscal risks.

132. **In September 2011, the Government modified banking regulation linking prudential reserve requirements for lending to subnational entities to a comprehensive set of indicators.** As a result, reserve provisioning should more closely track the portfolio quality of each institution. The structure of the new approach is largely based on Basel II risk models, and incorporates multiple indicators evaluating willingness and ability to pay based on fiscal and debt management ratios and on economic performance trends (see Table 1). The new credit risk assessment shifts the responsibility for risk evaluation to the financial institutions providing credit. The new regulation will reintroduce prudential reserve requirements on short-term debt and place a high penalty on banks that do not adhere to the new rules. Unregistered loans will be automatically risk-weighted at 150 percent.

Table 1 – Proposed state and municipality rating framework

Quantitative score (80%)	Credit bureau (29.4%)	*Days in arrears with banks*
		Percentage of timely payments with banking and non banking institutions
	Financial ratios (50.6%	*Number of credit ratings*
		Debt as a % of participaciones
		Debt service as a % of total revenues
		Short term debt as a % of total debt
		Total revenue as a % of current expenditures
		Investment as a % of total revenues
		Own source revenues as a % of total revenues
Qualitative score (20%)	Local context (9%)	*Contingent liabilities as a % of total debt*
		Unemployment rate
		Presence of financial services
	Institutional Framework (4.4%)	*Budget aproval and execution*
		Aproval and imposition of taxes
		Level of fiscal control and audit
	Operational efficiency (6.5%)	*Debt issuance*
		Investment in IT assets
		Level and efficiency of tax collection

133. **The new regulation will reduce the demand and stock of short-term debt, gradually eliminate the level of unregistered debt and strengthen bank due diligence.** The reintroduction of prudential reserve requirements for short-term debt will reduce subnational short term debt to more reasonable levels. The new credit assessment will require banks closer engagement in the due diligence process and, in turn, demand more transparency from subnational governments. The authorities anticipate that the new system will provide a better

estimate of the probability of default, loss given default and exposure at default, which should more closely link reserve requirements with banks portfolio quality. It is expected that the new regulation will increase transparency and that the share of registered-to-actual debt will increase from 86.5 percent to 93 percent by end of December 2012. Over the medium term, we expect the share of registered debt to be very close to the total amount of subnational debt (>95 percent).

134. **The new regulation will reduce fiscal risks by diminishing the information asymmetry between borrowers and lenders and increasing transparency.** The new regulation will promote transparency and accountability of the Government's debt management and public finance policies. Enhanced subnational liability data will allow for more fact based and accurate state and municipality credit assessments. The new framework should also promote a greater payment culture among States and Municipalities by including the information collected by the credit bureau among the criteria which determine reserve requirements.

Remaining Challenges

135. **A more transparent accounting and regulatory framework would strengthen subnational fiscal discipline and improve monitoring and evaluation of intergovernmental flows.** An internalization of spending and revenue-raising decision costs and strengthening of debt data accuracy would improve subnational fiscal discipline. The establishment of a common budget classification system in parallel to accounting harmonization would also enhance fiscal transparency and support standardization across government levels. Fiscal transparency at the subnational level, including the preparation of medium and long-term budget projections, would facilitate the identification of longer term fiscal risks related to population aging and support the establishment of a comprehensive national fiscal risk management strategy.

136. **Hardening budget constraints at the subnational level mitigate contingent fiscal risks for the sovereign.** The Government must define expenditure responsibilities more clearly, with health and education being two main areas of overlapping responsibilities. Weaknesses in information and reporting systems make it difficult to clearly separate federal and state responsibilities and assess whether federal funds have been used effectively. Furthermore, there is still the need to improve local revenue raising capacity and strengthen the predictability of intergovernmental transfer rules.

Table 2: Outstanding Subnational Debt
million pesos

	Total	Registered in SHCP*
Aguascalientes	2,305.9	2,550.5
Baja California	10,669.6	9,601.4
Baja California Sur	1,632.9	1,870.3
Campeche	443.7	438.1
Chiapas	10,631.1	8,035.5
Chihuahua	18,273.8	13,105.4
Coahuila	31,973.1	8,329.3
Colima	1,759.0	1,434.9
Distrito Federal	55,200.0	52,258.7
Durango	4,158.8	3,663.5
Estado de Mexico	40,738.3	37,731.2
Guanajuato	7,741.1	7,608.4
Guerrero	4,193.1	4,093.0
Hidalgo	4,108.5	3,928.1
Jalisco	22,068.4	21,969.4
Michoacán	15,037.4	13,381.6
Morelos	1,497.3	1,436.1
Nayarit	3,637.9	4,127.6
Nuevo León	36,903.5	34,634.4
Oaxaca	5,939.3	4,608.7
Puebla	9,746.3	9,119.5
Querétaro	2,190.3	2,187.3
Quintana	10,950.6	10,268.5
San Luis Potosi	4,178.6	4,787.5
Sinaloa	4,126.1	4,542.1
Sonora	12,607.4	13,160.2
Tabasco	4,392.8	2,332.6
Tamaulipas	9,988.8	9,087.7
Tlaxcala	0.0	0.0
Veracruz	22,566.8	21,655.8
Yucatán	2,015.7	1,829.1
Zacatecas	1,745.8	651.6

***** Debt registered in SHCP may be higher than the one reported by financial intermediaries due to the lack of updates in the registry of amortizations.
Source: SHCP. *As of March 2011

Annex 5: Poverty and Social Impact Evaluation

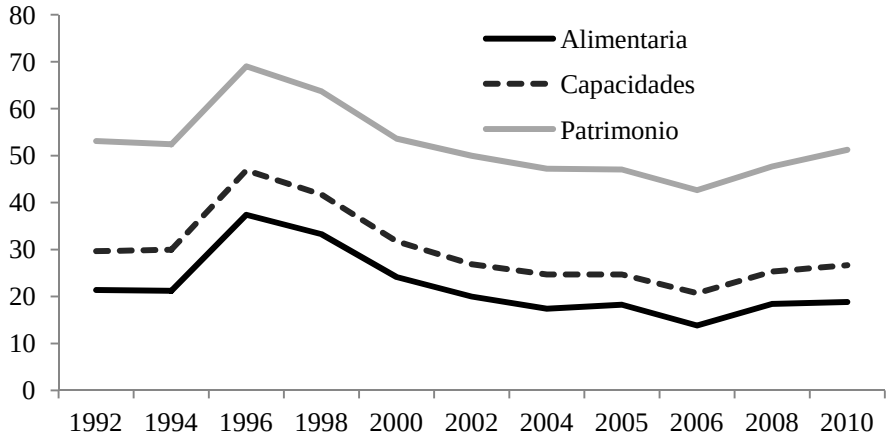
Introduction

137. **The policies supported by the proposed operation are expected to have a positive social impact, by contributing to protect pro-poor program budgets, increase financial inclusion, and improve the Government's response to natural disasters.** This Poverty and Social Impact Analysis (PSIA) explores how the implemented policies could translate into improved welfare. Although there is a lack of data to measure the impact of these policies *ex ante* with any precision, the continued promotion of budget stability and transparency and implementation of enhanced disaster risk management policies have the potential to improve the welfare of the poor. The third policy area, related to sub-national debt, could lead to a decline in welfare in so far as the over-indebted states are also those with greater probability of being affected by natural disasters. In this PSIA we outline the potential impacts and channels of transmission resulting from the implementation of the policies supported in this DPL.

A. Poverty in Mexico

138. **Despite earlier progress in poverty reduction, poverty reversed its declining trend as of 2008**. Mexico saw a dramatic decline in poverty between 1996 and 2006 with poverty falling by almost 22 percentage points (Figure 1). Income (*patrimonio*) poverty fell to its lowest point in 2006, at 42.7 percent, before reversing the 10-year trend. Food and fuel price shocks and the 2008 financial crisis led to the rise in poverty incidence. Between 2006 and 2008 and 2008 and 2010, poverty increased by 5 and 3.6 percentage points, respectively.

Figure 1: Income Poverty in Mexico, 1999-2010 (%)[46]



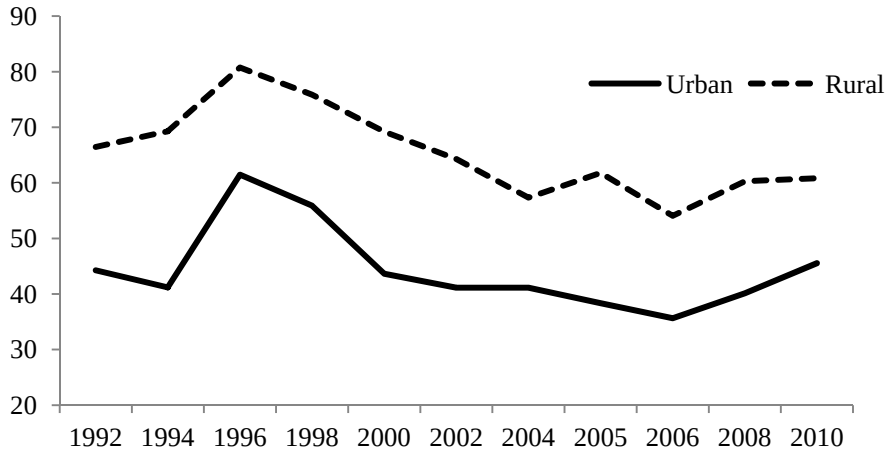
Source: CONEVAL

139. **Rural poverty continues to exceed urban poverty.** As reflected in Figure 2, the recent narrowing of the gap between rural and urban poverty is the result of a rise in urban poverty and

[46] Food-based poverty – *Alimentaria*: Income is not enough to cover basic food expenses. Capabilities poverty-*Capacidades*: Income is not enough to cover basic food, health, and education expenses. Asset-based poverty-*Patrimonial*: Income is not enough to cover basic food, health, education, dressing, home and public transportation expenses.

not a decline in rural poverty. Though the gap has narrowed it remains 15.2 percent. Unlike the 2006-2008 period, when both rural and urban poverty grew, in 2008-2010 the increase in poverty was driven by rising urban poverty.

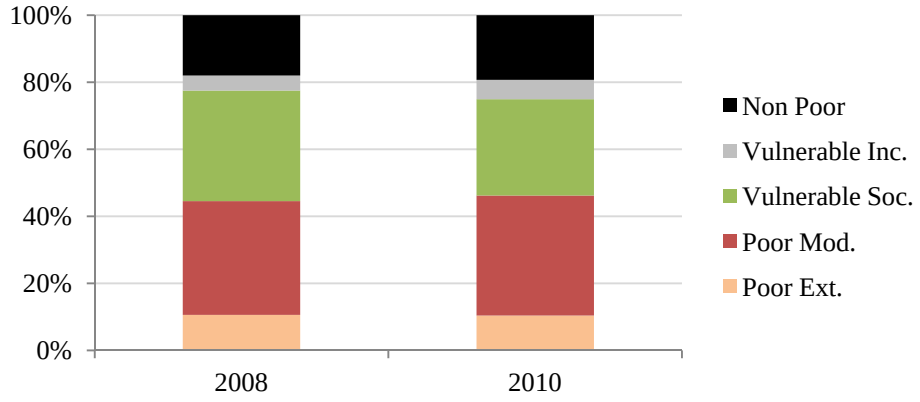
Figure 2: Income Poverty (Patrimony), Urban and Rural, 1992-2010 (%)



Source: CONEVAL

140. **The multi-dimensional nature of poverty has led Mexico to move away from a single monetary measure of welfare**. In 2008 the country introduced a multi-dimensional measure of poverty (MDI) that is an index comprised of a monetary measure (income) along with measures of schooling gaps, access (or lack of) to health care, social security, food and basic dwelling services, as well as housing quality and crowding (see CONEVAL 2010 for more details on how this is constructed). Data from this new index show that between 2008 and 2010 the rise in multi-dimensional poverty was slightly slower (44.5 to 46.2 percent), than the rise in income poverty (47.7 to 51.3 percent) (See Figure 3). This is due to positive changes in the non-income aspects of welfare in the country, with the increase in health insurance (*Seguro Popular*) playing a large role. Additionally, there was an improvement in social indicators while vulnerability to income poverty rose slightly.

Figure 3: Multi-Dimensional Poverty Index, 2008-2010 (% of population)

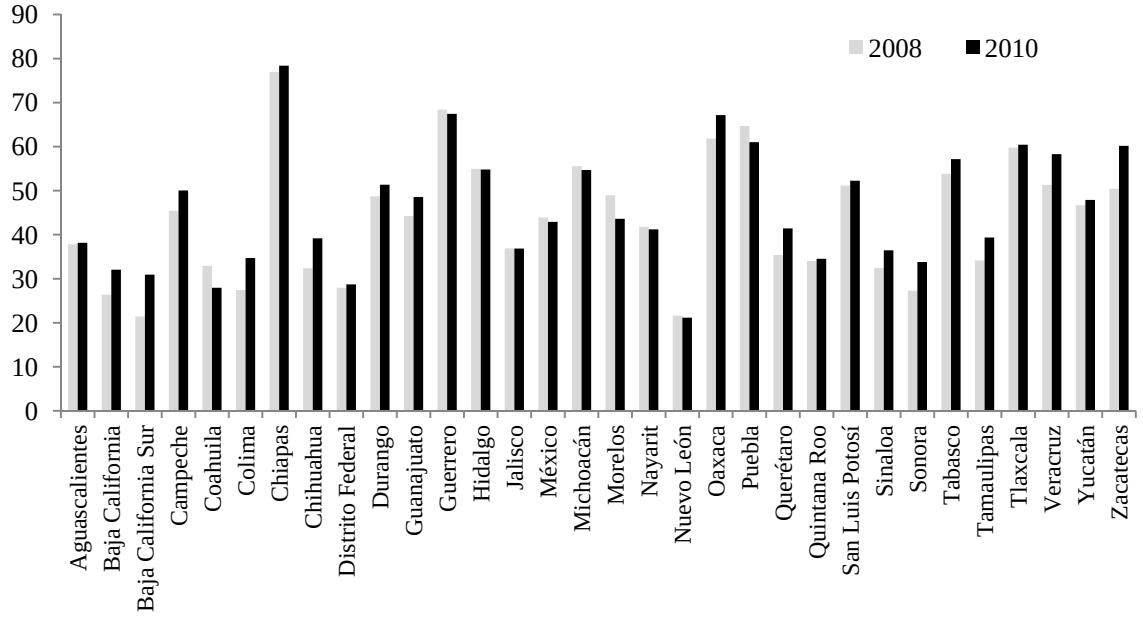


Source: CONEVAL

141. **Variations in multi-dimensional poverty are particularly striking across states**.[47] In multi-dimensional terms poverty rates vary from a low of 21.1 percent in Nuevo Leon to a high of 78.4 percent in Chiapas, while the recent economic shocks have affected states in different ways (Figure 4). Ten states experienced a drop in poverty between 2008 and 2010: in Coahuila the decline was almost 15 percent and in Morelos almost 11 percent. In contrast, in five states, Baja California, Baja California Sur, Colima, Chihuahua, and Sonora, poverty rose by more than 20 percent.

142. **The rise in overall poverty rates indicates the need to further attention on policies that effectively tackle poverty**. This is particularly relevant for urban areas, where poverty has risen most in recent years. The uneven impact of crises on state level poverty must be kept in mind, especially when linked to natural disasters.

Figure 4: Multi-dimensional Poverty by State, 2008-2010 (%)



Source: CONEVAL

B. Policy areas

1. Budget and Stability

143. **The adoption of the Single Treasury Account has the potential to have a positive effect on the poorer households in the country while the introduction of *Cetes Directo* will more likely affect lower-middle income and middle income households.**

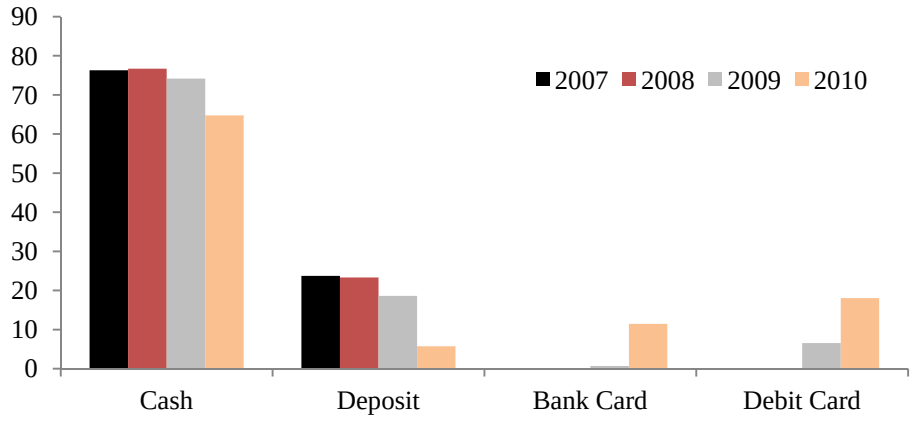
[47] Using only income poverty shows a very similar picture of state variation in poverty, indicating the high degree of correlation between the two measures.

1.1 Single Treasury Account:

144. **As described in annex 4.b the adoption of the Single Treasury Account led to the centralization of revenue and expenditure flows and shift toward electronic banking payments.** By promoting the use of the financial system for individuals who receive salaries, pensions or social program transfers, the STA can play an important role in increasing financial inclusion. Though a large share of formal sector pensioners and government employees have linkages with the financial sector, many of those receiving benefits under the Government social protection programs may not have previously had bank accounts.

145. **The main social protection programs, such as *Oportunidades* and the Nutrition Support Program, target households and individuals over-represented in the unbanked population: the very poor, those living in rural areas, and women**.[48] Thus, for an important segment of the poor in the country, the STA has the potential to increase financial inclusion and welfare. Since 2007, the number of *Oportunidades* and Nutrition Support Program beneficiary households being paid through the formal financial system has grown from 1.2 million to 2.3 million, increasing by over one million households in the formal financial sector (See Figure 5).

Figure 5: Payment Modes *for Oportunidades* and Food Support Program Beneficiaries (share of payments)



Source: SEDESOL

146. **New financial system customers are substantially different from general bank account holders**.[49] A 2010 survey of new financial system clients (DAI, 2010) shows that *Oportunidades'* recipients with accounts are largely female (Bansefi account holders receiving *Oportunidades* are 97 percent female compared to only 68 percent for non-*Oportunidades* recipients) and have very low levels of education (38 percent have less than a primary education compared to only 14 percent of non-*Oportunidades* beneficiaries). Moreover, beneficiaries are much more likely to be relatively new account holders with 63 percent having obtained an

[48] *Oportunidades* gives funds directly to women in most cases.
[49] In Mexico the 'Popular' Savings and Credit Sector is comprised of institutions authorized under the '*Ley de Ahorro y Crédito Popular*" of 2009. Bansefi is one of these organizations.

account in the last three years. In short, the electronic payment of benefits to social program recipients seems to have pulled a new, underserved segment of the population into the financial sector.

147. **Studies point to important benefits of financial inclusion on overall development and household welfare.** While the impact of Mexico's STA related financial inclusion is, as yet, unmeasured, there is evidence that increased financial access among households is associated with lowering inequality (Honahan, 2007), while higher levels of financial penetration (numbers of deposit accounts and loans as well as physical access to banking facilities) have been shown to be positively associated with measures of development infrastructure (Kendal, Mylenko and Ponce, 2010). A recent review by Kendal (2010) of the experimental evidence on the impact of savings showed that increased access to formal saving mechanisms facilitates saving for productive investments, protects household consumption and business activities from unexpected shocks and leads to higher income, profits, and investment in participating households.

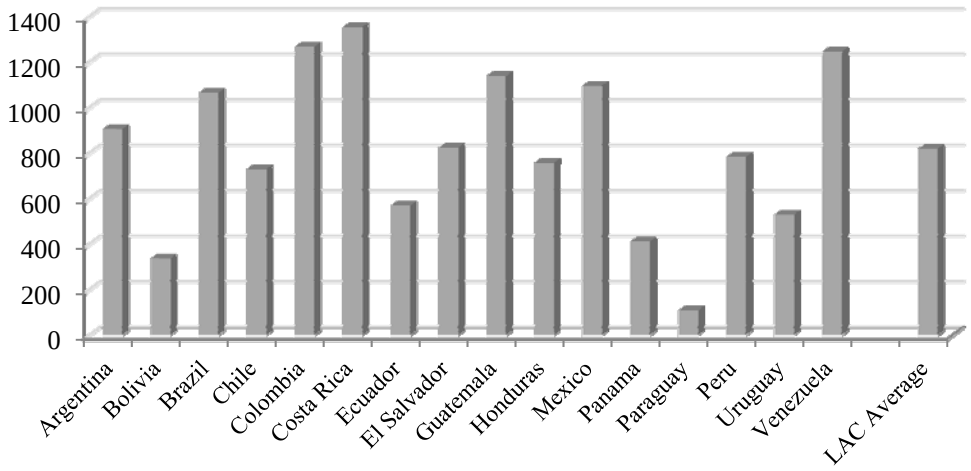
148. **In Mexico access to financial services is correlated with welfare gains.** The 2002 expansion of Azteca bank via the opening of new offices in stores led to an increase in employment, income and new businesses in the areas with new branch offices (Bruhn and Love, 2009). Aportela (1999) found that the expansion of the *Patronato del Ahorro Nacional* (now Bansefi) led to a 3-5 percent average increase in formal savings, and 6-8 percent among low income savers. Similarly, Djankov (2008) finds that per capita consumption and wealth are higher among banked households (32 percent and 88 percent more respectively) holding constant occupational and demographic characteristics. Finally, for firms, a lack of credit has been shown to be a constraint. In an experiment wherein small firms were given cash and capital stock, the estimated return to capital was 20-33 percent per month, well above the interest rate (Cull, McKenzie and Woodruff, 2007). The effect was more marked among the more financially constrained firms.

149. **Even the extreme poor have demand for savings.** Research has shown that there is substantial saving activity among some of the world's poorest groups. In Bangladesh and South Africa the very poor save in various ways, using from 4 to 10 different savings instruments per year (Collins et al, 2009). There is demand for saving products that allow savers to protect their funds from household demands or 'impulse' spending. A recent BANSEFI study revealed that 76.5 percent of clients or potential clients of the Savings and Credit Sector in Mexico agreed that, "it is better not to save at home to avoid temptations to spend the money" (DAI 2010). In fact, savings outside of the home is valued enough in many places that people actually pay to save (see the example of Ghana in Aryeetey and Gockel (1991)).

150. **In spite of the transition toward electronic payments, the majority of *Oportunidades* and Nutrition Support Program beneficiaries are still paid in cash**. Two thirds (down from 76 percent in 2008) of the beneficiaries, 4.2 million out of 6. 4 million households were paid in cash in 2010 (see Figure 5). This largely reflects that 40 percent of *Oportunidades* households live in areas with under 500 inhabitants (SEDESOL) and with few services. Even though Mexico has a high level of bank accounts and bank branches per adult population compared to the Latin American average, the number of branches per square kilometer is just below the

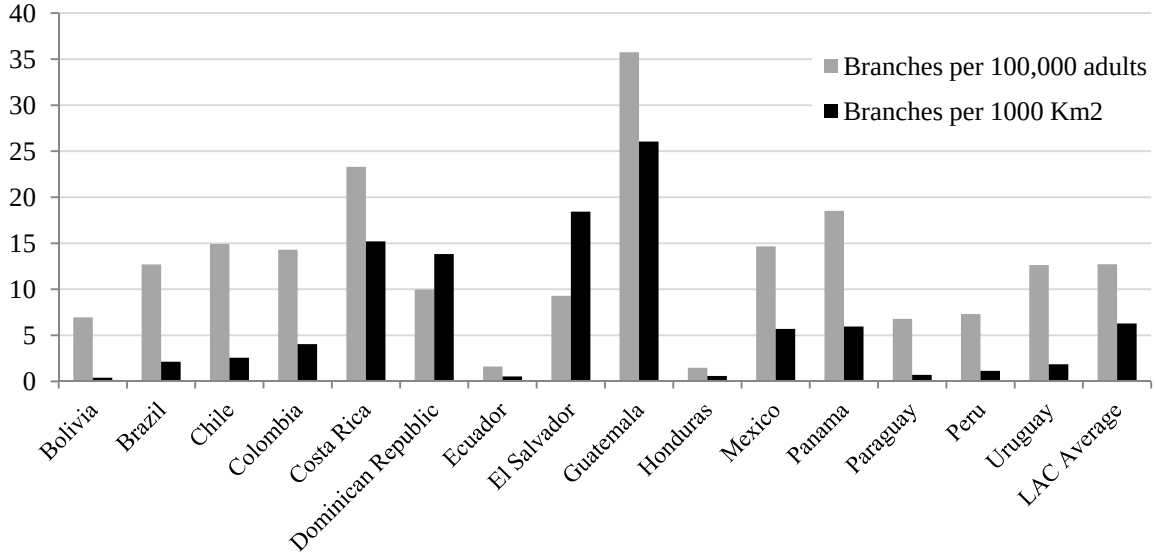
regional average (CGAP and WB, 2010). This indicates a high degree of geographic concentration of banks and bank branches, which leave segments of the population without adequate coverage (See Figures 6 and 7).

Figure 6: Access to Commercial Banking in Latin America, 2010,
Number of Accounts per 1,000 adults



Source: CGAP and World Bank (2010)

Figure 7: Commercial Bank Branches by Population and Area, 2010



Source: CGAP and World Bank (2010)

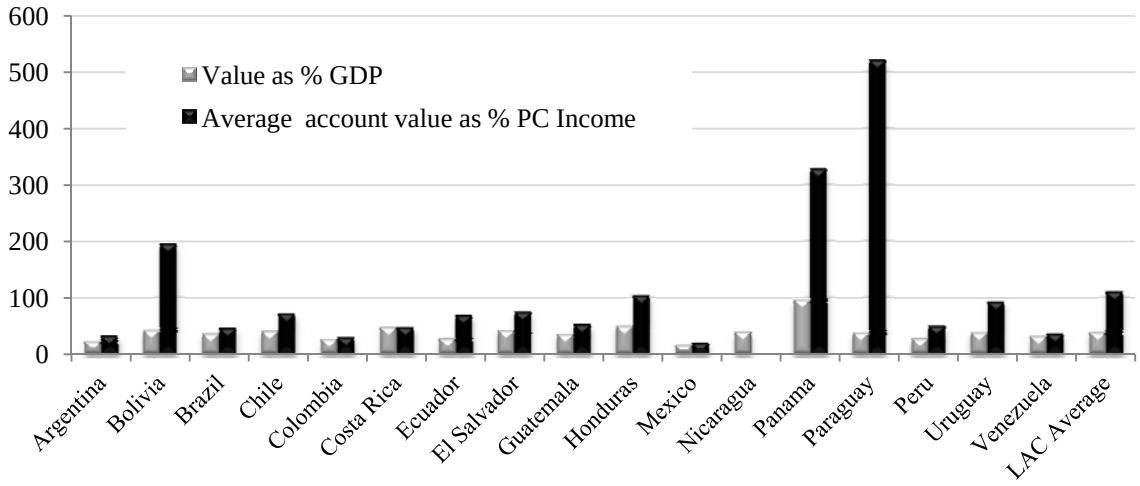
C. Impact of the Proposed DPL

151. **Revenue and payment centralization is improving coordination between federal government entities and will likely increase the number of beneficiary payments made through the financial sector**. No estimates exist as to how this might affect the number of payments linked to savings accounts to beneficiaries of social programs. If, however, the growth

in electronic payments follows the same trajectory as that since 2007, a further million households or low-income women with very limited education could be offered access to the financial sector for the first time: an important change in financial inclusion overall and among the poor particularly. SEDESOL is presently working on proposals that will expand this access, even in areas that are underserved by the traditional banking services.

152. **The net impact of the incorporation of additional households into the financial sector is unknown**. Accounts opened solely for the receipt of salary or benefit payments may simply be used as a pass through with monies being deposited by the Government and withdrawn in their entirety by the account holder. Recent research in Mexico shows that while households receiving remittances were more likely to have a bank account (as a means to receive the funds) the savings use of these accounts was limited and not typically employed to establish a lending relationship with the institution (Demirguc-Kunt et al 2008). It is not clear whether this is because remittance-receiving households have lower needs for credit than other households or simply because such households are not actually taking advantage of the institutional affiliation. In the case of SEDESOL beneficiaries, there are rules that the recipient must use some of the funds deposited every two months or the account is declared inactive. While this does not mean that funds must be withdrawn or spent, there is some anecdotal evidence that households believe this to be the case. Unfortunately, there is little data available on how the recipients use their accounts. The 2010 study for BANSEFI (DAI 2010) showed that although 61 percent of individuals receiving *Oportunidades* would like a savings account, overall beneficiaries with such accounts were much more likely to save at home (54 percent) than non-beneficiaries (35 percent). Additionally, aggregate data shows that while Mexico has substantially more bank accounts per capita than other countries in the region, the amount of funds held in such accounts is very small (either as a share of GDP or per capita income) (See Figure 8). In part, this may reflect the other savings options that exist in Mexico (government bonds for example as is examined below), but in part it may reflect direct-payment recipients not taking advantage of financial institution access.

Figure 8: Value of Bank Accounts as share of GDP and Per Capita Income in Latin America, 2010



Source: CGAP and World Bank (2010)

153. **Given the potential expansion of formal financial sector access, it is important to gain a better understanding as to the impact on individuals and households.** SEDESOL programs promoting savings and credit use among beneficiaries could enhance the benefit of the STA on poor households. Tracking data on the take up (new accounts) and use of existing accounts (as a minimum-share of transfers saved) will be critical to understanding the potentially large welfare impacts of the STA.

Cetes Directo

154. **The second supported policy area in the budget and stability area involves the electronic retail purchase of treasury bonds.** The program is expected to expand the pool of investors in government securities, by introducing new savings options to inexperienced or first time investors. By maintaining a low minimum investment level it is expected that individuals further down the income ladder will be able to take advantage of this investment and savings tool.

155. **The *Cetes Directo* program in Mexico started in late 2010 and in less than a year had the same number of investors as the Brazilian *Tesouro Direto* program in its first year of operation.** It is, however, unlikely that the substantial growth rates seen in *Tesouro Direto's* first few years will be matched in Mexico given the present global economic situation. The lower growth numbers seen by *Tesouro Direto* after the crisis might provide a more plausible growth trend. The impact on savings from the growth of Cetes Directo accounts for a significant portion of the population may be a longer term effort.

156. **Half of all current Cetes Directo investors are holdings under 100 pesos (US$9)** (Figure 9). While no information is available on the employment of investors or other characteristics that allow for their classification by income or other socio-economic measures, the fact that such a large proportion of investors are investing such small quantities indicates that the system may well be reaching its target investor.[50] Despite an increase of *Cetes Directo* investors, it is unlikely that the widening of the investor base will have a significant impact on national poverty levels or the welfare of more than a small percentage of households.

157. **Data suggests that the system is pulling in new investors**. First, 49 percent of *Cetes Directo* clients say that this is the first time they have invested, with the share of new investors highest among low value investors (Figure 10). Second, a full 61 percent of clients claim limited or no knowledge of financial terms. Actually, the knowledge of financial terms is quite low even among larger investors, suggesting either a need for more financial education in the country or a certain discomfort among investors in terms of their own knowledge. This suggests the potential benefit of public information campaigns as well as more targeted financial literacy training.

[50] It is possible that this reflects, instead, that investors are deliberately investing small amounts of money initially to test the system and learn how it works. It seems unlikely, however, that this cautious investor is fully responsible for the observed distribution.

Figure 9: Number of Clients in *Cetes Directo* by Investment Level (in MXN)
August 2011

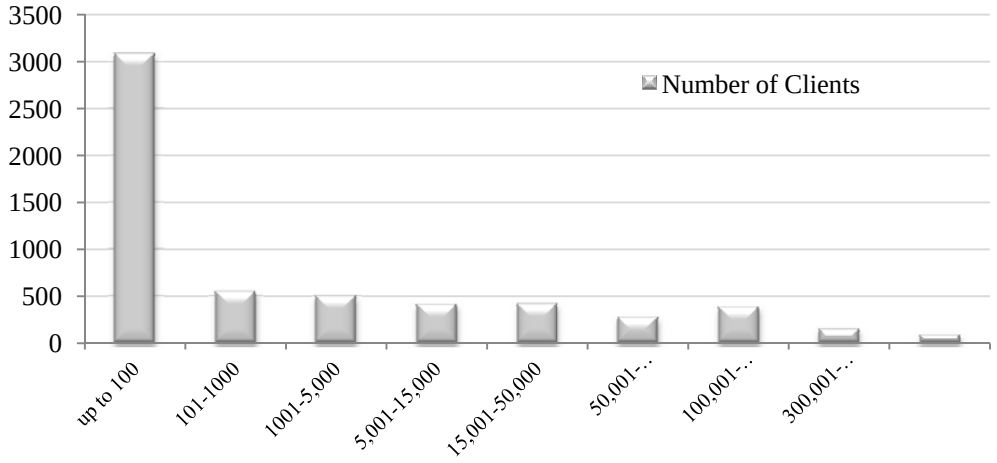
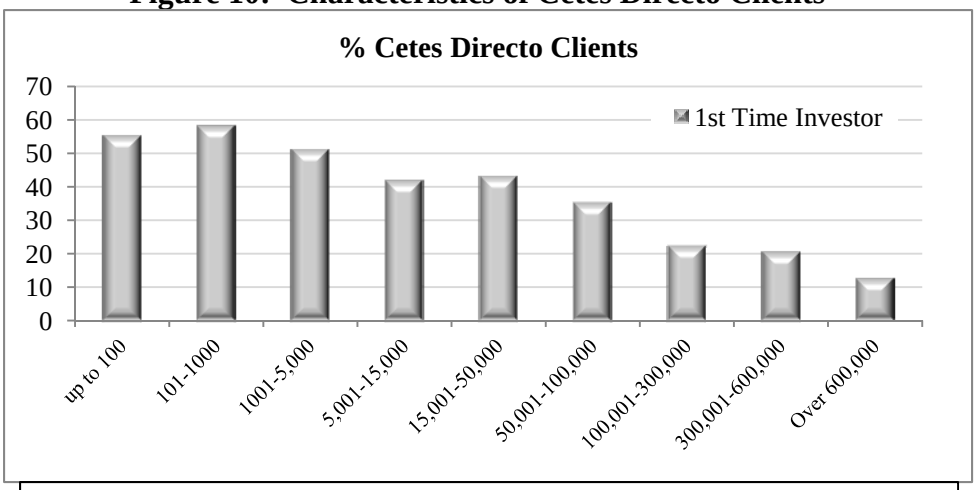
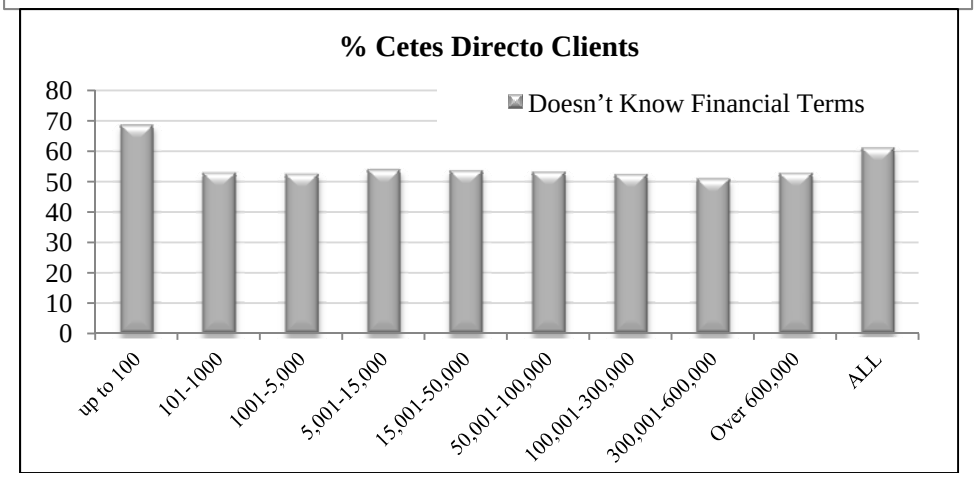


Figure 10: Characteristics of Cetes Directo Clients[51]





Source: Cetes Directo staff.

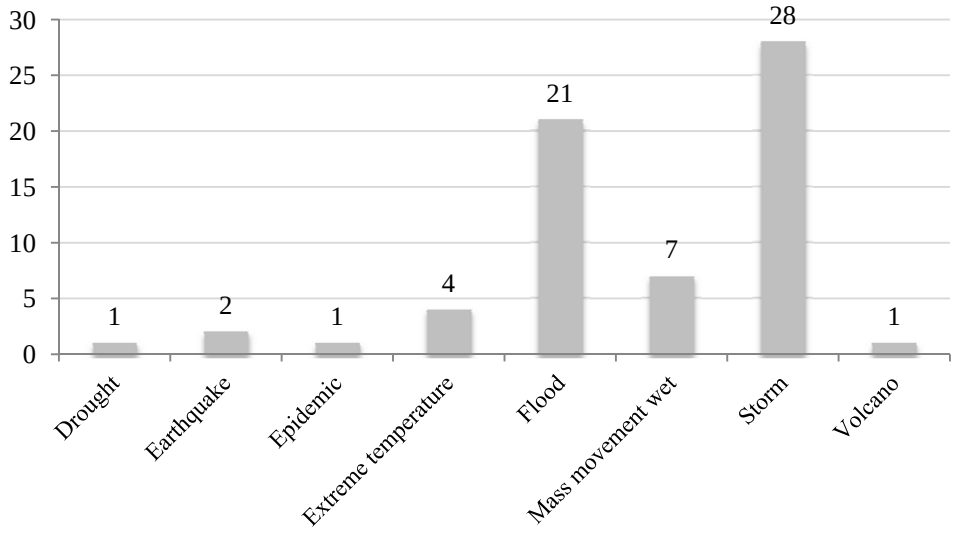
[51] As of August 2011

Policy Area 2: Natural Disaster Risk Management

A. Mexico's vulnerability to disaster

158. **Mexico is very vulnerable to natural hazards, particularly earthquakes and hurricanes, which has led to strong disaster risk management efforts.** In 1985, an 8.1 magnitude earthquake devastated Mexico City, killing over 10,000 people and causing massive damage.[52] Not only did the earthquake highlight the country's vulnerability to intensive natural disasters but also revealed the fiscal implications of such an event. The earthquake took place soon after Mexico's debt default to foreign creditors, making it difficult to suspend payments on recently restructured debts to help with the recovery.

Figure 11: "Natural" disasters in Mexico (2002-2011)

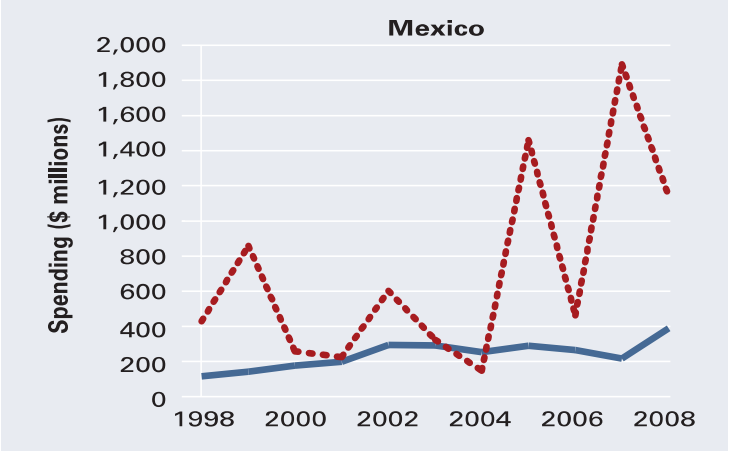


Source: "EM-DAT: The OFDA/CRED International Disaster Database, www.emdat.be - Université catholique de Louvain - Brussels - Belgium"

159. **Mexico's location on the ring of fire and its extensive coast lines on both the Pacific and Atlantic Oceans place more than two-thirds of the country's population and GDP at risk from natural disasters** (De La Fuente, 2010). The vastness of the exposure to natural disasters has broad implications for both infrastructure costs and socio-economic vulnerability and poverty. An increase in the knowledge of physical capital exposure has helped raise awareness about the importance and the targeting of disaster risk management. Figure 12 reflects pre and post-disaster spending in Mexico.

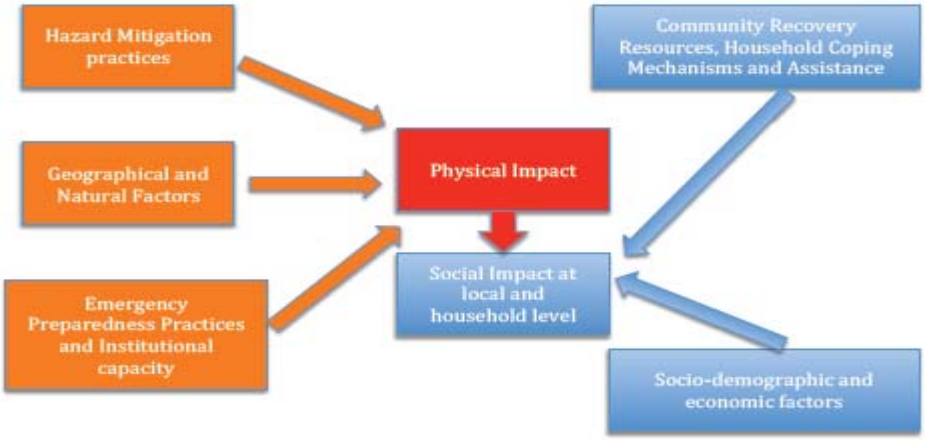
[52] The city is not on, nor even near, a fault line—the epicenter was 400 kilometers away—but Mexico City sits on a drained lake-bed in an old volcanic crater with soft clay and ash that amplifies ground movement.

Figure 12: Mexico pre and post-disaster spending (1998-2008)



Note: Pre-disaster spending: blue line; post-disaster spending: red-dotted line
Source: (World Bank, 2010); (De La Fuente, 2010)

Figure 13: Model of Disaster Impact

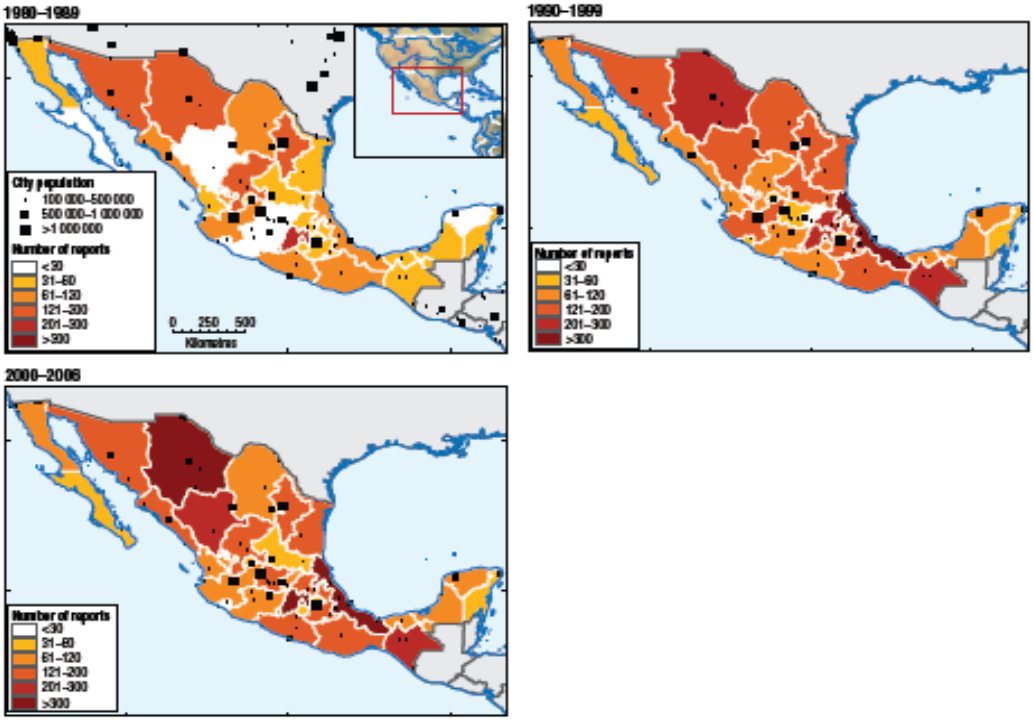


Source: Lindell & Prater, 2003; Rodriguez-Oriegga, De La Fuente, De La Torre, Moreno, & Rodriguez, 2010.

160. **Households with few resources located in hazard-prone areas are most vulnerable to natural disasters**. However, two important limitations exist for identifying the causal impact of natural disasters on social welfare indicators. The first one reflects the fact that while the occurrence of a natural hazard could be considered exogenous, its transformation into a disaster is not. In other words, the combination of risk exposure combined with household and community characteristics (environmental, human and economic) is what determines the scope of the disaster. Estimating the impact of disasters on poverty requires data spanning many object categories and techniques to address the existence of a double causality (Rodriguez-Oriegga, De La Fuente, De La Torre, Moreno, & Rodriguez, 2010). The second limitation relates to data. Data bases typically do not include adequate information on the occurrence of low frequency disasters with high consequences, because the window of opportunity covered for disasters that have occurred is very short. This means that even when it is possible to assess the impact of disasters, the assessment is essentially limited to the effects of intensive disasters. Extensive

disasters receive comparatively less attention in spite of their destructive potential for vulnerable communities, particularly in states with low institutional capacity. Furthermore, like intensive disasters, extensive disasters have also been increasing in numbers in Mexico (Figure 14). For example, the annual average number of extensive loss reports associated with floods, rains and flash floods has increased eight-fold since 1980. These hazards accounted for 31 percent of all extensive weather-related loss reports in the 1980s but over 40 percent in the last decade (UNISDR, 2009).

Figure 14: Number of extensive risk reports, Mexico (1980–1989, 1990–1999, 2000–2006)



Source: UNISDR, 2009.

161. **Vulnerability to natural hazards and poverty are strongly correlated in Mexico**. Poorer communities generally face greater exposure and longer-lasting impact to natural disasters. While the monetary value of the asset loss for poor households may be less than for wealthier households, the loss of a fraction of those assets may imply a greater loss in welfare. Adding to the negative effect of the disaster, such loses may be less likely to trigger official aid in the form of compensation or reconstruction. There is a strong correlation in Mexico between poorer municipalities[53] and those exposed to medium-high risk of disasters (seismic and hydro – floods and hurricanes). For example, Mansilla (2008) finds that municipalities with the greatest number of loss reports also had large percentages of population with high or very high levels of marginality - Acapulco (54.4 percent), Coatzocoalcos (54.1 percent), Juarez (45 percent),

[53] Using the Index of Municipal Marginality developed by the National Population Council (CONAPO).

Tapachula (54.1 percent), Tijuana (31.3 percent) or Veracruz (31 percent).[54] In contrast, only 8 percent of the housing stock was affected in municipalities with low or very low levels of marginality. The combination of vulnerability to risk and poverty translates into higher and longer impact of disasters on poorer communities. In the case of Mexico, Rodriguez-Oriegga et al (2010), shows that natural disasters reduce human development and increase poverty, and this effect can be sizeable: the average impact on human development in the affected areas is similar to a two-year reversal of their human development gains over the 5-year period reviewed. The impact of natural disasters is also higher for those municipalities with lower levels of human development while no effects are found for the wealthier municipalities (See Figure 14).[55]

B. Impact of the proposed DPL

162. **The impact of the policies implemented in the natural disaster risk management policy area will likely be positive and contribute to improving disaster risk management in the medium term.** The proposed DPL will improve the Government's ability to respond to and mitigate the impact of disasters by allowing Federal funds to disburse immediately, without the need to wait for state matching funds. In so doing, the DPL will help the Government improve its capacity to protect all of its citizens - including the most vulnerable- from the natural hazards threatening Mexico. The changes in FONDEN's rules will enhance the Government's capacity to prevent and manage disaster response, an improvement all the more important in the larger context of climate change and the uncertain international economic context.

163. **The capacity of the federal government to independently finance and manage reconstruction activities is expected to improve the speed of funding allocations and reconstruction, particularly in states with weaker institutional capacity, which also tend to be the poorest**. This reform will enable FONDEN to commit and disburse reconstruction funds more quickly. Combined with the issuance of an indemnity-based product to cover natural disaster events in excess of FONDEN's available resources, this reform increases the Government's capacity to respond to intensive disaster across the country, regardless of the affected state's capacity. Given that several states with weaker institutional capacity also count among those with high rates of poverty and vulnerability to natural hazards, the proposed reforms can be expected to benefit most the poorer states with high vulnerability to natural hazards and thus better protect their most vulnerable citizens living in at-risk areas.

[54] Municipalities with high or very high levels of marginality had high proportions of damaged and destroyed housing. In a third of these municipalities, between 10 and 25 percent of the housing stock was damaged or destroyed, while in another third this proportion was more than 25 percent. Over 20 percent had more than 50 percent of their housing stock affected.

[55] Other studies exploring the impact of disasters on households include Carter, Little, & Mogues, 2007; Baez & Santos, 2007; De Janvry, Sadoulet, Salomo, & Vakis, 2006; and Alpizar, 2007. Carter, Little and Mogues (2007) looked at the impact of droughts in Ethiopia and hurricane Mitch in Honduras on growth of assets at the household level. In the case of Ethiopia, they find a pattern of asset smoothing among low income families, i.e. households hold onto their assets even in periods where income and consumption decreases, such as the drought in question. They find for Honduran households that relatively wealthy families recovered faster from the shock than low-income families, and that a poverty trap is set below a given level of income. Baez and Santos (2007) analyzed the effects of Mitch on household indicators, finding no effect on school enrollment of children, but a significant increase in their labor participation. Others have analyzed how some coping mechanisms within households affect recovery from a shock derived from a natural disaster. De Janvry et al (2006) show that the availability of conditional cash transfers prior to a disaster serves as a safety net for those exposed to the disaster, while the uninsured and vulnerable poor use an increase in child labor, and savings in nutrition and school costs as coping mechanism. Alpizar (2007) finds that access to formal financial services mitigates the negative effects of natural disaster shocks for farmers in El Salvador, as it leads to more efficient production.

164. **The policies supported by the DPL will likely protect the Federal budget from fiscal pressures, and therefore diminish the need for ad hoc budget reallocations and reductions in response to a disaster.** The predictability and stability of the Federal budget is important: it affects investor confidence as well as the continuity of social programs and investments in human capital. Those policies are further reinforced by several key agencies (CONAGUA, SEP and the Ministry of Health) attainment of disaster insurance. These measures particularly benefit the most vulnerable, who would be most exposed to the agencies' inability to provide services and emergency support.

165. **Furthermore, the new policies take place in the larger context of the Government's efforts - through FONDEN- to improve disaster risk management, both in terms of prevention and reconstruction.** New policies will streamline disaster risk management funding, in particular to improve the tracking of funds allocated for reconstruction. To promote effective reconstruction, FONDEN is implementing a new system, backed by a centralized database of disaster impacts, assets and reconstruction allocation. The new system will improve the funding of post-disaster reconstruction, allow for the identification of problematic cases (i.e. not simply the cases outstanding due to the non-completion of administrative/paperwork processes) and thus increase expenditure control and supervision. This will result in a more efficient use of supervision resources and faster problem identification, directly and indirectly benefiting vulnerable populations.

166. **States with weaker institutional capacity or lower resources may find it difficult to comply with FONDEN new reconstruction rules, requiring states to subscribe to an insurance mechanism in order to protect their infrastructure and assets.** Non-compliance with the insurance requirement will lead to progressive penalization with the Federal Government gradually reducing reconstruction cost coverage. Given the large overlap in states between vulnerability to disasters and poverty, this new rule presents risks for poorer communities. If a state is unable to fulfill the requirement in the periods indicated, there could be a gap in needed reconstruction resources. While mechanisms to assist less affluent states are likely to be implemented during the transition, there is a risk that some states with weaker institutional capacity or lower resources may find themselves unable to comply with the requirement. Careful monitoring of this situation is needed to ensure that poorer areas are not negatively affected in the short run. It will also be necessary to monitor where funding is going. In a state with multiple reconstruction needs, the fact that federal funds can be disbursed prior to the matching state funds could lead to a bias in what infrastructure is reconstructed first. Will the money first go to the easily reached secondary school or will it be targeted to the remote primary school serving poor children?

167. **There is substantial inequality in the spatial distribution of federal infrastructure.** This has important implications in terms of disaster management, notably regarding prevention through the 'build back better' component. The Government has initiated a shift towards a more pro-active preventive strategy of disaster management. In the case of FONDEN, this strategy is represented in the 'build-back-better' requirement where the reconstructed or rehabilitated infrastructure or eligible low-income housing is built to a higher building code. The goal of this is to increase the resilience to future natural hazards. The policy can have negative

ramifications, however. The build-back-better policy raises the cost of reconstruction. On the one hand, it will skew the total federal spending on disasters even further toward richer states with more infrastructure. On the other hand, as was seen in 2010, cutting the 'build-back-better' or preventive component can be seen as a way to save money when an inordinate number of disasters occur.[56] While 2010 is considered a particularly exceptional year in terms of disasters, the repetition of this situation could negatively affect poorer states and municipalities with older infrastructure. There is a risk that some infrastructure rebuilding deemed too expensive to be adjusted to the new building regulations standard might not happen.

168. **The Government needs to incorporate additional measures regarding the socio-economic impact of disasters, particularly on poverty, to its disaster risk management strategy.** While FONDEN's mandate focuses on physical capital, a number of key welfare issues are directly related to infrastructure, especially in a country displaying such a high level of spatial inequality. This inequality is further heightened in the case of disasters by the respective states institutional capacity, as well as by the nature of the disaster. Indeed, intensive disasters are more likely to trigger an automatic response and receive more attention from the Federal State, while extensive lower-level disasters may cause repetitive damages with substantial but less visible socio-economic consequences. Other federal agencies have also taken pro-active disaster risk management measures as previously noted. Consultations with officials from FONDEN and those ministries and agencies indicate close collaboration. However, from a monitoring and analytical point of view, FONDEN's sole focus on physical capital omits key information actually available (for instance from SEDESOL and other agencies) that would help understand the differentiated impact of disasters on communities. Integrating these sources of information could help in the targeting and prioritization of reconstruction interventions, as well as in promoting an integrated approached to disaster prevention and reconstruction.

169. **In addition to examining the direct impact the policies may have, future analysis in the disaster risk management policy areas will also look at:** (a) policies and programs for resettling people living in areas of declared high risk, (b) whether socio-cultural adaptation measures are in place for reaching Indigenous communities in both prevention and response activities, and (c) the extent to which Mexico's systems for disaster response compare to international human rights standards for internally displace people.

Policy Area 3: Subnational Debt Management

170. **The recent sharp increase in subnational debt has implications for disaster risk management and poverty reduction**. In a constrained financial environment, a significant increase in debt levels is likely to have substantial consequences with respect to those States' financial capacity as well as on their social spending. Several of the heavily indebted states, such as Quintana Roo, Veracruz, Nuevo Leon, Nayarit, Michoacán, are highly exposed to natural disasters, making them all the more vulnerable to natural disaster shocks. This situation creates a financial challenge for states with limited fiscal space when faced with an intensive disaster, and

[56] To highlight the fact that resources were being spent on preventive and well as 'curative' activities, the FONDEN budget was split to allow the 'build-back-better' funds their own budget line. This backfired as it made the funds look optional (which they are not, one cannot build a building today the only meets building codes from the 1960s for example) and led to their being cut.

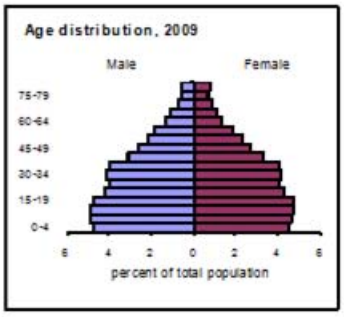
also burdens the Federal government that must step in to mitigate the impact for the local population. The case of extensive disasters is even more problematic for indebted states, with their financial condition limiting their capacity to respond and mitigate the consequences of those types of disasters. This situation would likely affect more vulnerable communities with an even higher degree of impact and longer lasting socio-economic consequences.

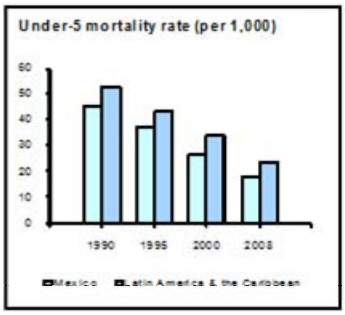
Annex 6: Mexico at a Glance

Mexico at a glance

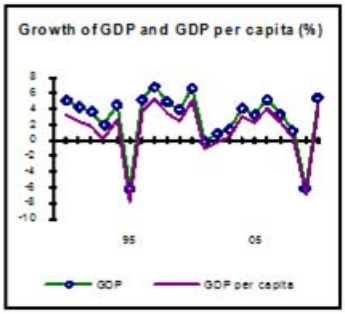
9/26/11

Key Development Indicators (2010)	Mexico	Latin America & Carib.	Upper middle income
Population, mid-year (millions)	108.5	572	1,002
Surface area (thousand sq. km)	1,964	20,422	48,659
Population growth (%)	1.0	1.1	0.9
Urban population (% of total population)	78	79	75
GNI (Atlas method, US$ billions)	1,008.0	4,510	14,410
GNI per capita (Atlas method, US$)	9,290	7,802	5,884
GNI per capita (PPP, international $)	15,010	10,951	9,904
GDP growth (%)	5.4	6.0	6.0
GDP per capita growth (%)	4.3	4.9	5.1
(most recent estimate, 2003–2010)			
Poverty headcount ratio at $1.25 a day (PPP, %)	4	8	..
Poverty headcount ratio at $2.00 a day (PPP, %)	8	17	..
Life expectancy at birth (years)	75	73	71
Infant mortality (per 1,000 live births)	15	19	20
Child malnutrition (% of children under 5)	3	4	..
Adult literacy, male (% of ages 15 and older)	95	92	95
Adult literacy, female (% of ages 15 and older)	91	90	92
Gross primary enrollment, male (% of age group)	115	118	111
Gross primary enrollment, female (% of age group)	113	114	110
Access to an improved water source (% of population)	94	93	95
Access to improved sanitation facilities (% of population)	85	79	84





Net Aid Flows	1980	1990	2000	2008 a
(US$ millions)				
Net ODA and official aid	55	156	-58	149
Top 3 donors (in 2008):				
United States	9	23	24	103
Germany	15	9	15	39
European Commission	0	5	4	22
Aid (% of GNI)	0.0	0.1	0.0	0.0
Aid per capita (US$)	1	2	-1	1



Long-Term Economic Trends	1980	1990	2000	2010	1980–90	1990–2000	2000–10
					(average annual growth %)		
Consumer prices (annual % change)	26.4	26.7	9.5	4.2			
GDP implicit deflator (annual % change)	33.4	28.1	12.1	4.4			
Exchange rate (annual average, local per US$)	0.0	2.8	9.5	12.6			
Terms of trade index (2000 = 100)	194	106	100	111			
Population, mid-year (millions)	67.6	83.2	98.0	108.5	2.1	1.6	1.0
GDP (US$ millions)	194,851	262,710	581,428	1,034,804	1.1	3.1	2.1
		(% of GDP)					
Agriculture	9.0	7.8	4.2	3.9	0.8	1.5	1.7
Industry	33.6	28.4	28.0	34.3	1.1	3.8	1.3
Manufacturing	22.3	20.8	20.3	18.1	1.5	4.3	1.1
Services	57.4	63.7	67.8	61.7	1.4	2.9	2.5
Household final consumption expenditure	65.1	69.6	67.0	64.8	1.4	2.3	2.9
General gov't final consumption expenditure	10.0	8.4	11.1	11.7	2.4	1.8	1.1
Gross capital formation	27.2	23.1	23.9	25.0	-3.3	4.7	0.4
Exports of goods and services	10.7	18.6	30.9	30.3	7.0	14.6	4.6
Imports of goods and services	13.0	19.7	32.9	31.8	1.0	12.3	4.7
Gross savings	22.0	20.3	20.5	24.2			

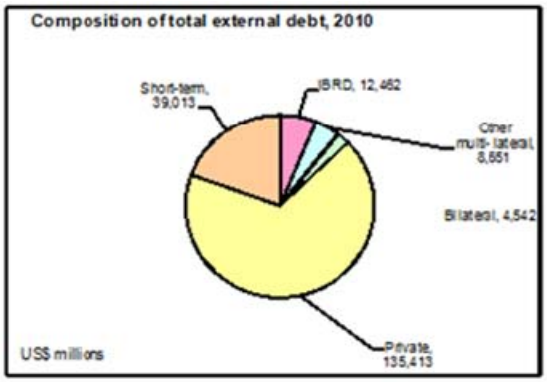
Note: Figures in italics are for years other than those specified. .. indicates data are not available.
a. Aid data are for 2008.

Development Economics, Development Data Group (DECDG).

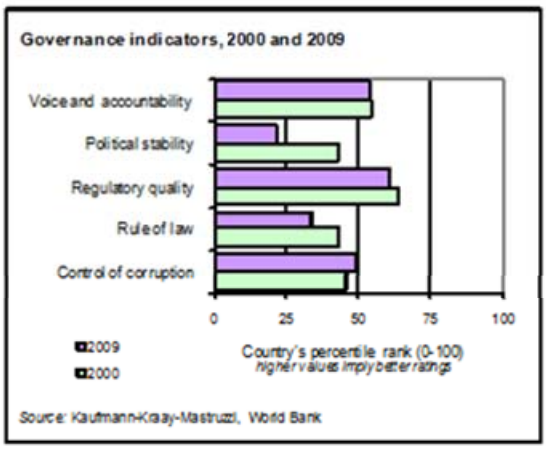
Balance of Payments and Trade	2000	2010
(US$ millions)		
Total merchandise exports (fob)	166,121	298,473
Total merchandise imports (cif)	174,458	301,482
Net trade in goods and services	-10,660	-3,009
Current account balance	-18,743	-5,632
as a % of GDP	-3.2	-0.5
Workers' remittances and compensation of employees (receipts)	7,525	21,914
Reserves, including gold	35,520	120,277

Central Government Finance		
(% of GDP)		
Total revenue (including grants)	18.5	22.7
Tax revenue	9.1	9.6
Programmable expenditure	13.4	20.0
Public Sector Borrowing Requirements	n.d.	-3.5
Budgetary surplus/deficit	-1.0	-2.8
Highest marginal tax rate (%)		
Individual	..	28
Corporate	35	28

External Debt and Resource Flows		
(US$ millions)		
Total debt outstanding and disbursed	150,901	200,081
Total debt service	58,509	31,216
Debt relief (HIPC, MDRI)	–	–
Total debt (% of GDP)	26.0	19.3
Total debt service (% of exports)	30.4	9.2
Foreign direct investment (net inflows)	18,110	18,679
Portfolio equity (net inflows)	447	4,189



Private Sector Development	2000	2009
Time required to start a business (days)	–	13
Cost to start a business (% of GNI per capita)	–	11.7
Time required to register property (days)	–	74
Ranked as a major constraint to business (% of managers surveyed who agreed)	2000	2009
Anticompetitive or informal practices	..	*19.0*
Corruption	..	*17.8*
Stock market capitalization (% of GDP)	21.5	38.7
Bank capital to asset ratio (%)	9.6	*9.6*



Technology and Infrastructure	2000	2008
Paved roads (% of total)	32.8	*38.2*
Fixed line and mobile phone subscribers (per 100 people)	27	90
High technology exports (% of manufactured exports)	22.4	19.4

Environment		
Agricultural land (% of land area)	55	*55*
Forest area (% of land area)	34.3	*33.3*
Terrestrial protected areas (% of surface area)	..	8.0
Freshwater resources per capita (cu. meters)	*4,090*	3,846
Freshwater withdrawal (billion cubic meters)	78.2	..
CO2 emissions per capita (mt)	4.0	*4.5*
GDP per unit of energy use (2005 PPP $ per kg of oil equivalent)	8.0	*7.6*
Energy use per capita (kg of oil equivalent)	1,505	*1,750*

World Bank Group portfolio	2000	2010
(US$ millions)		
IBRD		
Total debt outstanding and disbursed	11,444	12,462
Disbursements	1,748	2,449
Principal repayments	1,330	194
Interest payments	890	113
IDA		
Total debt outstanding and disbursed	–	–
Disbursements	–	–
Total debt service	–	–
IFC *(fiscal year)*	2000	2009
Total disbursed and outstanding portfolio	1,234	683
of which IFC own account	723	611
Disbursements for IFC own account	179	132
Portfolio sales, prepayments and repayments for IFC own account	66	113
MIGA		
Gross exposure	–	–
New guarantees	–	–

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9/26/11

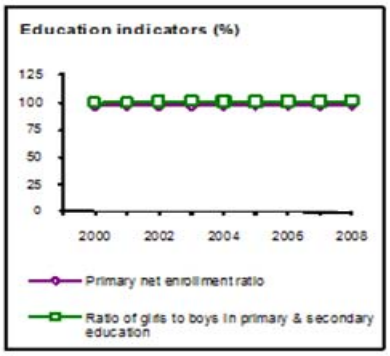
Millennium Development Goals

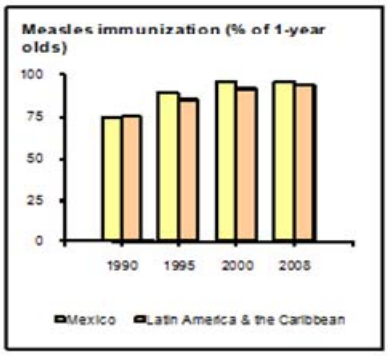
Mexico

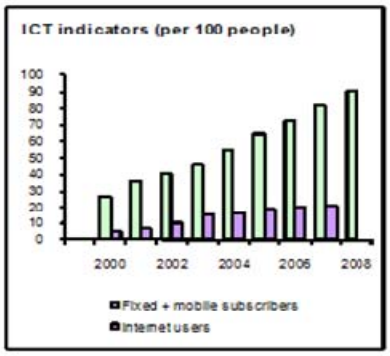
With selected targets to achieve between 1990 and 2015

(estimate closest to date shown, +/- 2 years)

	Mexico			
Goal 1: halve the rates for extreme poverty and malnutrition	**1990**	**1995**	**2000**	**2008**
Poverty headcount ratio at $ 1.25 a day (PPP, % of population)	*4.5*	*7.0*	4.8	4.0
Poverty headcount ratio at national poverty line (% of population)	*53.5*	*69.0*	53.6	47.4
Share of income or consumption to the poorest quintile (%)	*3.9*	*4.3*	3.9	3.9
Prevalence of malnutrition (% of children under 5)	*13.9*	..	*6.0*	*3.4*
Goal 2: ensure that children are able to complete primary schooling				
Primary school enrollment (net, %)	98	98	97	98
Primary completion rate (% of relevant age group)	88	97	100	104
Secondary school enrollment (gross, %)	55	58	73	90
Youth literacy rate (% of people ages 15-24)	95	96	97	*98*
Goal 3: eliminate gender disparity in education and empower women				
Ratio of girls to boys in primary and secondary education (%)	97	97	100	102
Women employed in the nonagricultural sector (% of nonagricultural employment)	*37*	36	37	39
Proportion of seats held by women in national parliament (%)	12	*14*	18	28
Goal 4: reduce under-5 mortality by two-thirds				
Under-5 mortality rate (per 1,000)	45	37	26	17
Infant mortality rate (per 1,000 live births)	36	31	22	15
Measles immunization (proportion of one-year olds immunized, %)	75	90	96	95
Goal 5: reduce maternal mortality by three-fourths				
Maternal mortality ratio (modeled estimate, per 100,000 live births)	93	85	90	85
Births attended by skilled health staff (% of total)	..	*86*	..	*93*
Contraceptive prevalence (% of women ages 15-49)	..	67	70	*73*
Goal 6: halt and begin to reverse the spread of HIV/AIDS and other major diseases				
Prevalence of HIV (% of population ages 15-49)	0.2	0.3	0.3	*0.3*
Incidence of tuberculosis (per 100,000 people)	61	44	32	17
Tuberculosis case detection rate (%, all forms)	28	28	58	93
Goal 7: halve the proportion of people without sustainable access to basic needs				
Access to an improved water source (% of population)	85	88	90	94
Access to improved sanitation facilities (% of population)	66	72	76	85
Forest area (% of total land area)	36.2	..	34.3	*33.3*
Terrestrial protected areas (% of surface area)	..	..	..	8.0
CO2 emissions (metric tons per capita)	4.3	3.8	4.0	*4.5*
GDP per unit of energy use (constant 2005 PPP $ per kg of oil equivalent)	7.0	7.0	8.0	*7.6*
Goal 8: develop a global partnership for development				
Telephone mainlines (per 100 people)	6.4	9.7	12.6	19.4
Mobile phone subscribers (per 100 people)	0.1	0.8	14.4	70.3
Internet users (per 100 people)	0.0	0.1	5.2	22.2
Personal computers (per 100 people)	0.8	2.6	5.8	*14.4*







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NOVEMBER 2008

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