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INTERNATIONAL BANK FOR RECONSTRUCTION AND  
DEVELOPMENT

PROGRAM DOCUMENT

FOR A

MEXICO UPPER SECONDARY EDUCATION (MUSE)

DEVELOPMENT POLICY LOAN

IN THE AMOUNT OF US\$700.0 MILLION

TO THE

UNITED MEXICAN STATES

April 9, 2010

Human Development Department  
Colombia and Mexico Country Management Unit  
Latin America and the Caribbean Region

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## CURRENCY EQUIVALENTS

(Exchange Rate Effective March 2010)

Currency Unit	=	Mexican Peso
MX\$1.00	=	US\$0.079005
US\$1	=	MX\$12.6574

## FISCAL YEAR

January 1 – December 31

## ABBREVIATIONS AND ACRONYMS

ANUIES	<i>Asociación Nacional de Universidades e Instituciones de Educación Superior</i> (National Association of Universities and Higher Education Institutions)
APL	Adjustable Program Loan
CFAA	Country Financial Accountability Assessment
CONAEDU	<i>Consejo Nacional de Autoridades Educativas</i> (National Council of Education Authorities)
COPEEMS	<i>Consejo para la Evaluación de la Educación Media Superior</i> (National Council for the Assessment in Upper Secondary Education)
CPAR	Country Procurement Assessment Report
CPS	Country Partnership Strategy
DPL	Development Policy Loan
EMS	<i>Educación Media Superior</i> (Upper Secondary Education)
ENIGH	<i>Encuesta Nacional de Ingresos y Gastos en los Hogares</i> (National Household Survey of Income and Expenditures)
ENLACE	<i>Evaluación Nacional del Logro Académico de Centros Escolares</i> (National Evaluation of the Schools Academic Achievement)
ENOE	<i>Encuesta Nacional de Ocupación y Empleo</i> (National Survey of Occupation and Employment)
EXCALE	<i>Exámenes para la Calidad y el Logro Educativos</i> (Education Quality and Achievement Test)
FCL	Flexible Credit Line
FY	Fiscal Year
GDP	Gross Domestic Product
IBRD	International Bank of Reconstruction and Development
IDB	Inter-American Development Bank
IMF	International Monetary Fund
INEE	<i>Instituto Nacional para la Evaluación de la Educación</i> (National Institute for Educational Assessment and Evaluation)
LAC	Latin America and the Caribbean
MUSE	Mexico Upper Secondary Education
NAFIN	<i>Nacional Financiera, S.N.C</i>
OECD	Organization for Economic Co-operation and Development
PFM	Public Financial Management

PISA	Program for International Student Assessments
PND	<i>Plan Nacional de Desarrollo</i> (National Development Program)
PROFORDEMS	<i>Programa de Formación Docente de Educación Media Superior</i> (In-Service Teacher Capacity Program for Upper Secondary Education)
PROFORHCOM	<i>Programa de Formación de Recursos Humanos Basada en Competencias</i> (Skills-Based Human Resources Development Program)
SEDESOL	<i>Secretaría de Desarrollo Social</i> (Secretariat of Social Development)
SEMS	<i>Sub-Secretaría de Educación Media Superior</i> (Sub Secretariat of Upper Secondary Education)
SEP	<i>Secretaría de Educación Pública</i> (Secretariat of Public Education)
SHCP	<i>Secretaría de Hacienda y Crédito Público</i> (Secretariat of Finance and Public Credit)
SIGEMS	<i>Sistema Integral de Gestión de la Educación Media Superior</i> (Upper Secondary Education Management Integrated System)
SNB	<i>Sistema Nacional de Bachillerato</i> (National Diploma System)
TESOFE	<i>SHCP/Tesorería de la Federación</i>
UNAM	<i>Universidad Nacional Autónoma de México</i> (National Autonomous University of Mexico)
UPN	<i>Universidad Pedagógica Nacional</i> (National Pedagogical University)

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## MEXICO

### FIRST DEVELOPMENT POLICY LOAN FOR UPPER SECONDARY EDUCATION REFORM (MUSE I)

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## LOAN AND PROGRAM SUMMARY

### First Development Policy Loan for Upper Secondary Education Reform

Borrower	The United Mexican States
Implementing Agency	Secretariat of Public Education (SEP)
Financing Data	US\$700.0 million
Operation Type	Single Tranche Operation in Programmatic Development Policy Loan
Main Policy Areas	<p><b>1. <i>Improving Flexibility of Upper Secondary Education:</i></b> creation of the National Diploma System (<i>Sistema Nacional de Bachillerato</i>, SNB) based on defined competencies, to ensure a minimum standard for all graduates and to facilitate transfers of students between different sub-systems.</p> <p><b>2. <i>Enhancing Quality and Relevance of Education:</i></b> shift to transparent competence-based curricula in upper secondary education.</p> <p><b>3. <i>Reducing Opportunity Cost of Upper Secondary Education:</i></b> consolidation of existing scholarship program (<i>Apoyo, Retención, and Excelencia</i>) targeting poor students not covered by <i>Oportunidades</i> or other scholarship programs, while expanding scholarship coverage.</p>
Key Outcome Indicators (at end of 2010)	<p><b><i>Improving Flexibility of Upper Secondary Education:</i></b></p> <ul style="list-style-type: none"> <li>• Competence based curriculum implemented in at least 50 percent of all federal schools.</li> </ul> <p><b><i>Enhancing Quality and Relevance of Education</i></b></p> <ul style="list-style-type: none"> <li>• A school evaluation system for entry in the SNB is operating;</li> <li>• Mexico has implemented its first sample-based assessment (EXCALE) for 12th grade;</li> <li>• 120,000 teachers have completed their training in PROFORDEMS;</li> <li>• based on the new assessment instruments and existing administrative data, INEE publishes for the first time the <i>Indicadores del Sistema de Educación Media Superior</i>;</li> </ul> <p><b><i>Reducing Opportunity Cost of Upper Secondary Education</i></b></p> <ul style="list-style-type: none"> <li>• The number of scholarships has increased from 280,000 to 320,000 in upper secondary education for the 2009-2010 school year;</li> <li>• SEMS has initiated a comprehensive evaluation study of the scholarship program.</li> </ul>
Program Development Objective(s) and Contribution to CPS	The proposed programmatic DPL aims to support the Government in the implementation of the Mexico Upper Secondary Education Reform to improve the internal efficiency of upper secondary education and its responsiveness to the labor market. The programmatic series would support actions in the following three areas addressing the key constraints of the EMS system: (i) improving flexibility of upper secondary education;

	<p>(ii) enhancing quality and relevance of education; and (iii) reducing opportunity cost of upper secondary education. This will be accompanied by the development of robust monitoring mechanisms providing up-to-date information on the performance of schools and individualized data for parents on the learning achievement of their children.</p>
<p>Risks and Risk Mitigation</p>	<p>1. <b>Macroeconomic risks:</b> The ongoing crisis can turn out to be more prolonged or severe than currently expected. A significant fall in revenues may make it difficult for the Government to finance the ambitious reform program and it may be hard for states to focus additional resources on the sector. However, the strong consensus on the importance of the reform makes it unlikely that the macroeconomic situation will prevent the Government from implementing the reforms in the proposed MUSE DPL series.</p> <p>2. <b>Political risks:</b> The changes brought in by the reform may be opposed by some stakeholders. However, the reform program is strongly supported by the Federal and all of the State Governments which reduces the risk that future changes in Government might slow the program. To minimize the political risk the Government has undertaken extensive consultations with key stakeholders.</p> <p>3. <b>Social risks:</b> The upper secondary education system in Mexico is highly diverse, mirroring the cultural diversity in the country. The Reform’s objective is to strengthen the different EMS systems rather than to create a “one-size fits all” national system. While different sub-systems will adopt the reform at different speeds, the reform is designed to benefit all sub-systems and its proposals can be adopted regardless of a sub-system’s resources. To address the risk of social exclusion of vulnerable groups the reform promotes equity of access to upper secondary education, incentives for student retention, and improvements in the relevancy of the curriculum. The Government is targeting poorer schools and students to receive additional support and technical assistance. The Government has a number of programs that focus on indigenous students and many states have programs as well. The reform will promote the collection of data that will make it easier to monitor the equity impact of the reform.</p> <p>4. <b>Sustainability risks:</b> The first sustainability risk refers to the nonparticipation of key stakeholders, such as subsystems or teachers’ unions. Currently, almost all major sub-systems are participating in the reform. The only sub-system that has decided not to participate is the National Autonomous University’s (UNAM). Teachers’ unions have generally supported the reform. A second sustainability risk is the change in federal administration in 2012. The outcome of the election is unlikely to halt the reform as it will be well advanced by 2011 and is broadly supported politically. A third sustainability risk is that subsequent loans do not materialize. While Mexico values the Bank’s technical, financial, and political support, the country has the capacity to carry out the reforms, and while the reforms may be delayed, they are unlikely to be abandoned.</p>
<p>Operation ID</p>	<p>P112262</p>

**MEXICO**  
**UPPER SECONDARY EDUCATION REFORM (MUSE I) DPL**

**I. INTRODUCTION**

- 1. Improving global competitiveness is at the top of Mexico's development agenda.** Mexico stands at the crossroads between two worlds as it is both one of the most developed countries in the Latin America and Caribbean Region and one of the poorest member countries of the Organization for Economic Development and Cooperation (OECD). Traditionally, Mexico relied on its low cost labor to produce goods for the North American market, complemented by natural resource exports and remittances. In the past decade, however, Mexico has seen its international competitiveness decline: in 1998, the Global Competitiveness Report ranked Mexico as the 34th most competitive country in the world; by 2009, it had sunk to 64th place. To regain its competitive position, Mexico needs to focus more on adding value to its production and moving from a low-cost labor-based economy to a knowledge-based economy that exploits the new global economic environment.
- 2. Lack of qualified labor has been identified as a key bottleneck for Mexico's competitiveness.** The most recent Mexico Competitiveness Report<sup>1</sup> identifies the need for a qualified, constantly learning and adaptable workforce as an essential prerequisite for future sustained growth and warns that an insufficient pool of qualified graduates reduces the capacity of Mexican firms to move up the value chain.
- 3. Reforming the upper secondary education system is an essential component of the Government's efforts to improve competitiveness.** The National Development Program for 2007-2012 (*Plan Nacional de Desarrollo*, PND) includes ambitious reform proposals in the education sector. Previous reform efforts have focused on the basic and higher education systems, leaving the upper secondary education the weak link in the education system. It is fragmented and suffering from variable quality, making it hard for employers to know what skills to expect from graduates. Moreover, keeping people in upper secondary long enough to graduate is a challenge: two out of three students who drop out of school do so at the upper secondary level.
- 4. The lack of attention to upper secondary education has led to three major challenges to students entering the system.** First, because the system is fragmented, students wishing to transfer to another institution have to start from the beginning, discouraging mobility among institutions and programs. Second, many students feel upper secondary education is not relevant enough to give them an advantage in the labor market. Third, particularly in the case of the poor, the opportunity cost of staying in education is high and long term benefits of graduating are undervalued.
- 5. The Government of Mexico has requested a Development Policy Loan in the amount of \$700 million to support its ongoing upper secondary education reform program, focusing in particular on obstacles to increasing the numbers and skill level of graduates entering the labor market.** The proposed loan is the first in a series of three proposed

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<sup>1</sup> *The Mexico Competitiveness Report 2009*, World Economic Forum, Harvard University

operations that would support the Government's ambitious upper secondary education reform program. The amount of subsequent operations in this series will be determined based on Mexico's financing requirement and availability of IBRD resources. The proposed DPL will focus on the following three policy areas:

- ***Improving Flexibility of Upper Secondary Education:*** Mexico has created the National Diploma System (*Sistema Nacional de Bachillerato*, SNB) based on defined competencies, to ensure a minimum standard for all upper secondary education graduates and to facilitate transfers of students between different sub-systems.
- ***Enhancing Quality and Relevance of Education:*** The upper secondary education system is shifting to transparent competence-based curricula that would allow both students and prospective employers to understand and evaluate the skills obtained in upper secondary education. This shift is the outcome of national consultations with all the key stakeholders in upper secondary education and reflects reforms that have already been introduced in some sub-systems.
- ***Reducing Opportunity Cost of Upper Secondary Education:*** To reduce opportunity costs for the poorest, the Secretariat of Public Education (*Secretaría de Educación Pública*, SEP), in coordination with the *Oportunidades* program, consolidated the existing upper secondary scholarship program while expanding its coverage to more than 250,000 students from poor households.

6. The creation of SNB represents a commitment of the Government and the education sector to reform upper secondary education. The Bank's support is also long term and will be reflected by a proposed series of programmatic DPLs designed to support the reform process and help bring it forward.

7. **The proposed operation is consistent with the 2008 Country Partnership Strategy (CPS) and the 2010 CPS update and is grounded in extensive country dialogue and analytical and advisory services.** While the Bank's lending program to Mexico has been expanded in both volume and scope since the onset of the global crisis,<sup>2</sup> CPS anticipated continuing the long standing partnership in education with a blend of lending and knowledge instruments to support Mexico's reform effort. In particular, the Bank is working closely with the Sub-Secretariat of Upper Secondary Education (*Sub-Secretaría de Educación Media Superior*, SEMS) on reform assessment, including the design and implementation of various evaluation strategies.

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<sup>2</sup>A CPS Progress Note was presented to the Board on March 25, 2010.

## II. COUNTRY CONTEXT

**8. Mexico is seeking to improve its competitiveness and to move up in the technology chain.** Mexico, a member of the OECD, has the world's 13<sup>th</sup> largest economy and the second largest in Latin America.<sup>3</sup> In the last decade the country established a solid macroeconomic foundation for growth through prudent fiscal and monetary policy, achieving manageable debt levels and low inflation. Nevertheless, Mexico's growth rates before the current global downturn remained disappointing. There are growing concerns that Mexico is not making the transition effectively from a labor-intensive industrial economy to a knowledge-based economy.<sup>4</sup> Preparing Mexico's workforce requires a greater focus on labor market skills and a high quality education.

**9. The global economic crisis has hit Mexico hard.** Despite a strong track record of sound macroeconomic management and stable economic conditions over the past several years, Mexico stands out as one of the most affected countries in the region. Trade declined by about 23 percent in 2009, hit by the recession in the United States, Mexico's primary trading partner accounting for 80 percent of Mexican exports. Remittances have fallen substantially, 16 percent in dollar terms, and direct foreign investment declined by more than 50 percent in 2009. Private consumption contracted by about 6 percent and the economy lost almost half a million private formal sector jobs during the year.

**10. The crisis has also affected Mexico's education sector.** Although the data is not yet available, it is expected that the crisis would have had an impact on upper secondary education. An increased demand for scholarships has been observed and the Government has responded by increasing the amount of resources available, both through SEP and the *Oportunidades* program. However, the final effect on enrollment at the upper secondary education level remains uncertain as there are two factors pushing it in opposite directions: the loss of family income (due to greater economic hardship) may reduce demand for education, but at the same time the decrease in the opportunity costs of education (due to weak labor markets and increased unemployment) may increase enrollment. The Government has maintained the level of expenditure on key education inputs. What is harder to assess at this point is whether the households have changed their expenditure on key education inputs due to the crisis, and whether those household decisions could have had an impact on education quality and learning.

**11. The authorities implemented counter-cyclical economic policies.** Fiscal stimulus policies included additional public investment in infrastructure, temporary employment programs, control of administrated prices in the energy sector, and an expansion of development banks' credit. The independent Bank of Mexico eased monetary policy between January and July of 2009 in order to support efforts to reduce the downturn in economic activity. The Government also sought support from both national and international development finance institutions to ensure adequate funding for priority programs and continued flow of credit to the private sector and several actions have been taken to maintain orderly conditions in foreign exchange and domestic financial markets in view of the unprecedented global financial shocks. The International Monetary Fund (IMF) approved the first Flexible Credit Line (FCL) for Mexico in April, 2009 which provides access to approximately US\$47 billion as a backstop to Mexico's

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<sup>3</sup> Based on 2008 estimates from IMF World Economic Outlook Database, October 2009

<sup>4</sup> Farrell, D., A. Puron, and J. K. Remes. 2005. "Beyond Cheap Labor: Lesson for Developing Economies." *McKinsey Quarterly* (1):99-109.

international reserves. On March 25, 2010, the Government received a one year extension of this credit line with the aim to reassure the markets on Mexico's fundamental creditworthiness.

## **Macroeconomic Outlook and Debt Sustainability**

**12. For the last decade, the Mexican Government has operated under a responsible fiscal policy.** The Government has focused on keeping the public sector deficit under control and reducing the public sector debt-to-GDP ratio within an environment of enhanced price stability. This contributed to a healthy domestic credit expansion and growth of domestic demand. Prior to the onset of the economic crisis, Mexico experienced moderate growth within a framework of macroeconomic stability. GDP growth averaged 3.8 percent annually between 2004 and 2007.

**13. The Mexican economy was severely affected by the global economic and financial crisis.** As a relatively open economy, Mexico was hard hit by the collapse of international trade during the last quarter of 2008 and the first quarter of 2009. As a result, annual economic growth in 2008 was down to 1.3 percent and GDP fell by 6.5 percent in 2009.

**14. The contraction of economic activity led to a sharp decline in tax revenue that was partially compensated by non-recurrent revenue in 2009.** Non-oil tax revenue dropped by 11.5 percent in real terms in 2009 while Value Added Tax revenue fell by 15 percent. The Government compensated for lower oil and non-oil budget revenue with resources from a successful oil price hedge, an extraordinary transfer of profits from the Central Bank, and drawing resources from the Government's revenue stabilization funds. These non-recurrent revenues amount to 2.8 percent of GDP and allowed the Government to maintain its borrowing requirements at a modest 3.2 percent of GDP.

**15. Public revenue enhancing measures and a temporary budget deficit are part of the 2010 public sector budget.** The Mexican fiscal responsibility law requires a balanced budget<sup>5</sup> and allows for a budget deficit only under "exceptional circumstances" and conditioned on the adoption of a medium term fiscal framework to return to a balanced budget. Lower public sector tax revenue due to the sharp decline and current slack in economic activity is further aggravated by a rapidly falling volume of oil production leading to a more structural challenge to replace diminishing oil revenue by more permanent sources. The Government has responded by increasing income, value added and excise taxes largely through an increase in the tax rates and, at the same time, by allowing an additional budget deficit of 0.7 percent of GDP in 2010. The budget deficit is planned to be reduced to 0.4 percent by 2011 and the budget should return to balance by 2012.

**16. Monetary policy has been left unchanged after the substantial easing in 2009.** The severity of the economic downturn led the authorities to reduce the target for the overnight interbank interest rate by an accumulated 375 basis points between January and July of 2009, from 8.25 to 4.50 percent. The economic recession has reduced inflation to 3.6 percent by the end of 2009. The Central Bank is projecting a temporary, one-time increase in consumer price inflation in 2010, to around 5 percent by year-end, due to tax and public sector price increases

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<sup>5</sup> A modification to the law adopted by Congress in 2008 includes all investments by the public sector oil company in the budget but excludes these investments from the budget balance requirement. Those investments are budgeted at an amount of 2.0 percent in 2010. As a result the overall budget deficit for 2010 is estimated at 2.7 percent of GDP (2.0 percent oil sector investment and an additional 0.7 percent temporary deficit spending).

included in the 2010 budget. The monetary authorities have left the policy intervention rate unchanged in view of the temporary nature of the price increases as well as economic activity below potential output. The Central Bank projects inflation of 3 percent by the end of 2011.

**17. The monetary authorities have expressed their intention to increase the level of international reserves to mitigate financial shocks.** The global financial crisis led to a sell-off of emerging market assets in the last quarter of 2008 and early 2009. In order to maintain liquidity, authorities employed several actions including foreign exchange interventions, the provision of loans and loan guarantees by government development banks, and the repurchase and reduced issue of long term government bonds. Interventions on the foreign exchange market between October 2008 and December 2009 required the sale of almost US\$35 billion of international reserves. To ensure markets that the country has access to sufficient foreign exchange liquidity in early 2009 Mexico entered into a US\$30 billion currency swap with the US Federal Reserve and the US\$47 billion FCL with the IMF. Through this support, international reserves increased to US\$91 billion by the end of 2009 compared to US\$85 billion in September 2008. In addition, the authorities announced measures to increase the level of international reserves in 2010 and 2011, through a rules-based interventions system. While foreign exchange transactions of the Federal Government and of the state-owned oil company PEMEX will continue to be channeled through the Central Bank, a mechanism of monthly auctions of put options to allow the Central Bank to purchase foreign exchange from the markets that existed between 1996 and 2001 was reintroduced in February 2010.

**18. Following the global economic recovery, economic activity in Mexico is showing a rebound.** Economic activity picked up in the second half of 2009 and is off to a strong start in 2010. The recovery is led by resurgence in the demand for exports. Projections of the economic outlook for Mexico take into account the depth of the recent recession and show that the economy will operate below its potential output until 2012. Assumptions regarding the external environment have a major impact on the projection of Mexico's main macroeconomic variables. The base case scenario (Table 1) follows the Bank's Global Economic Prospects and the IMF's World Economic Outlook Update (both of January 2010) for global economic activity. The scenario shows a modest rebound of economic activity by 2010 and 2011 and a return to potential output by 2012.

**Table 1: Macroeconomic Indicators for the Base Case Scenario**

Indicator	Observed	Estimated	Projected		
	2008	2009	2010	2011	2012
Real GDP (%)	1.4%	-6.5%	4.0%	4.0%	4.2%
Consumption (%)	1.4%	-5.8%	3.5%	4.3%	4.2%
Investment (%)	5.3%	-17.0%	10.1%	5.4%	4.4%
<b>External Accounts</b>					
Merchandise Exports Current (US\$ billion)	291.3	229.7	263.0	295.6	320.8
Oil Exports (US\$ billion)	50.7	30.9	37.3	37.7	38.0
Non Oil Exports (US\$ billion)	240.7	198.8	225.7	257.9	282.9
Merchandise Imports Current (US\$ billion)	308.6	234.4	272.4	311.8	337.7
Remittances (US\$ billion)	25.1	21.6	23.3	25.2	26.6
Current Account Balance (US\$ billion)	-15.8	-5.2	-10.0	-13.7	-12.5
Current Account Balance (% of GDP)	-1.5%	-0.6%	-1.0%	-1.3%	-1.1%
FDI (US\$ billion)	23.17	11.42	17.00	21.00	25.00
Gross Reserves (US\$ billion)	95.6	99.2	109.4	116.6	121.8
External Debt (% of GDP)	18.7%	24.6%	23.6%	23.9%	23.5%
<b>Public Sector</b>					
Public Expenditure (%)	4.2%	2.3%	1.0%	3.8%	3.3%
PSBR (% GDP)	-2.1%	-3.1%	-3.5%	-3.1%	-2.8%
Public Debt -PSBR Historical Balance (% GDP)	35.8%	39.5%	39.7%	39.7%	39.6%
<b>Prices</b>					
Inflation (e.o.p.) (%)	6.5%	3.6%	5.3%	3.8%	3.3%
Nominal Exchange Rate (pesos/dll)	11.1	13.5	13.0	13.2	13.3
Oil Price (US\$ per barrel)	86.3	57.5	70.2	70.9	71.5

Source: Bank staff estimates

**19. Due to the crisis, Mexico faces rising fiscal pressures and increasing public debt-to-GDP ratios.** Past fiscal discipline including the establishment of stabilization funds and the purchase of oil price hedges, enabled a counter-cyclical policy response to the crisis in 2009. The public debt-to-GDP ratio posted an important increase end-2008 due to the reform of social security for public employees. The sharp economic contraction, the depreciation of the currency, and a higher fiscal deficit contributed to an increase of the debt-to-GDP ratio in 2009 despite efforts to increase revenues. Policymakers face a trade-off between increased fiscal discipline that may aggravate economic recovery and continued fiscal stimulus that worsens Mexico's debt position.

**20. Public debt remains within manageable proportions despite a significant increase in the debt-to-GDP ratio until 2011.** In late 2009, several debt rating agencies downgraded Mexico's public debt. This was driven by the market's concerns that the tax measures approved in 2009 would not raise sufficient revenues and that future structural reforms lack the necessary political consensus. While this may raise the cost of lending in the short term, it is not likely to have a major impact on public finance or debt sustainability. Debt sustainability analysis based on average levels of economic growth, the primary balance and the real interest rate on public debt observed over the decade previous to the current economic crisis and applied to the debt-to-

GDP ratios observed in the base by 2011, shows a return to a downward path of the debt-to-GDP as of 2012.

**21. The macroeconomic policy framework is adequate for the proposed Development Policy Loan.** Fiscal and monetary policy has been well-managed in recent years, resulting in a steady decline in public sector deficits and low, stable inflation rates. The Government has carefully managed both its external and domestic borrowing to reduce the possibility of crowding out the private sector and to maintain Mexico’s external stability. Mexico seems well positioned to move into economic recovery and to manage its debt burden.

### Education and Competitiveness

**22. Labor in Mexico is undereducated compared to other OECD countries.** The education level of the Mexican workforce is one of the lowest in the OECD as is the country’s performance on international education assessments. The percentage of the population with secondary education, particularly upper secondary education (*Educación Media Superior* (EMS)) is one of the lowest for any OECD country and is below that of some other countries in Latin America. More than at any other level, it is the low coverage at the upper secondary level that reduces the average education attainment of Mexico compared to its international peers.

**Table 2: Education Attainment of Adults, age 25 to 64 (percentages)**

<i>Country</i>	<i>Basic or Less</i>	<i>Upper Secondary</i>	<i>Tertiary</i>
<b>Mexico</b>	78	7	15
Brazil	71	22	8
Chile	50	37	13
OECD Average	31	42	27
United States	13	48	40
Korea	23	44	32

**Source:** Education at a Glance 2008, OECD.

**23. The low level of education has had a negative impact on competitiveness measures.** As stated before, Mexico has seen its international competitiveness<sup>6</sup> decline in the past decade. Most of Mexico’s relative decline is due to improvements seen in other countries. The low level of educational attainment has contributed to Mexico’s declining ratings, including the quality of the education system (92<sup>nd</sup> out of 131), the quality of math and science education (113<sup>th</sup> out of 131), and secondary education enrollment (73<sup>rd</sup> out of 131).

**24. A country’s competitiveness is built as much on knowledge as on hard infrastructure.** Mexico has the 13<sup>th</sup> largest economy and is competing with other middle-income countries, including Malaysia, Thailand, and the Republic of Korea in Asia, and the Czech Republic, Poland, and Russia in Europe, among others. Each country has its own set of endowments and strengths, but as the global economy moves in the direction of an information and service-focused economy, there will be increasing demand for a highly educated workforce as a factor of production.

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<sup>6</sup> Competitiveness can be a very subjective term. Here it refers to increases in a country’s productivity and the country’s attractiveness to domestic and foreign investors.

**25. The upper secondary education system is crucial to improving Mexico's productivity and competitiveness.** Mexico is following global trends in seeing a large increase in the demand for upper secondary education to meet the growing number of basic education graduates, to improve the workforce's technical skills, and to prepare more students for higher education. Preparing students for the knowledge economy requires a different kind of education system - one that emphasizes new competencies and analytical ability while responding to the demands from the productive sector.

### III. SECTOR CONTEXT AND THE GOVERNMENT'S REFORM PROGRAM

#### Upper Secondary Education Sector in Mexico

**26. Upper secondary education in Mexico is a weak link in the national education system.** Basic education (grades 1 through 9 plus preschool) has a high level of coverage throughout the country and most youth now finish ninth grade. While quality is mixed and is below that of other OECD countries, recent results indicate a general positive trend with increases in both coverage and quality. Enrollment rates at the university level are similar to many other middle-income countries. The problems are the greatest at the upper secondary level.

#### Box 1: Upper Secondary Education in Mexico

Upper Secondary is the education level after basic education (preschool plus six years of primary, and three years of lower secondary). Students are required to have a lower secondary certificate to enter upper secondary education. Many sub-systems also require an entrance examination to enroll in upper secondary. In general, students at upper secondary education are between 15 and 17 years old. Upper secondary is a non-compulsory three-year system; although in some cases it lasts two or four years. Most students participate in one of three types of upper secondary education: the *bachillerato* or general upper secondary, technological upper secondary, or technical professional education.

**General upper secondary** prepares students for higher education. A significant percentage of education at this level is offered by universities. **Technological upper secondary** prepares students both for both careers as professional technicians and for higher education for those who want to continue with tertiary education. **Technical Professional Education** consists of vocational and professional programs in different specialties.

At the basic education level, public schools are operated exclusively by State Governments. The Federal Government operates most public basic education schools in the Federal District. At the upper secondary level, the Federal Government directly and indirectly administers schools with 28 percent of the total enrollment, through several subsystems. States, through their own systems, account for around 37 percent of enrollment. University-run systems account for 15 percent of enrollment and the private sector accounts for 21 percent. There are an estimated 200 to 300 different options for upper secondary degrees and it is not generally possible to transfer from one type of study to another.

The Federal Government is the largest financier of upper secondary education in the country, directly providing 60 percent of spending. State Governments also play a major role in financing upper secondary education, accounting for 23 percent of public spending. This ranges from providing counterpart funding to the National School for Professional and Technical Education (CONALEP) system to directly operating their own upper secondary school systems. States also provide financing to their own autonomous universities from their own budgets (this complements federal funding). Public upper secondary education is rarely free for students, although the cost varies greatly from system to system.

In the upper secondary system, unions are fragmented and do not play a strong role as they do in basic education. Some subsystems do not have a teacher's unions. Informal estimates suggest that there are around 300 different unions active in the upper secondary education system nationwide.

**27. The system is highly fragmented and quality is a major concern.** Unlike basic education, which is closely regulated by the Federal Government, there exist many separate EMS sub-systems, many of them suffering from variable quality. The level of regulation of these different subsystems varies greatly. The overall quality of upper secondary education is poor:<sup>7</sup> in 2008, 45 percent of 12<sup>th</sup> grade students failed mathematics in the ENLACE test<sup>8</sup> and a further 36 percent achieved only the minimum passing score. Only 15 percent of scores were “good” or “excellent”.

**28. While enrollment rates at upper secondary level are increasing, graduation rates remain low.** Enrollment at the upper secondary level increased from 36 percent in 1990 to 62 percent in 2007. The majority of lower secondary graduates continue on to upper secondary - the absorption rate for upper secondary education is estimated to be 98 percent in 2007. However many students drop out before graduating: of every 100 students who enter upper secondary level, only 60 will ever graduate. One of every two students that abandon school in Mexico does it during high school. Keeping students in upper secondary long enough to graduate is a challenge for three main reasons:

- i) ***Flexibility***: Lack of mobility across sub-systems is a reason often given to explain dropping out of school (approximately 5 percent of the cases);
- ii) ***Quality and relevance***: Many students feel that upper secondary education is not relevant enough to give them an advantage in the labor market.<sup>9</sup> The main reason for dropping out for kids from 15 – 17 years of age is lack of interest or pertinence of the curriculum (approximately 40 percent of the cases); and
- iii) ***Opportunity cost***: Another important reason for dropping out is economic cost to the family, be that direct costs or foregone income for the duration of studies (approximately 33 percent of the cases). In addition to these real costs, the case of the poor in particular, school dropouts tend to underestimate the returns to education. Providing information about true returns to education could help remedy this problem.<sup>10</sup>

## **Public Expenditures and Upper Secondary Education**

**29. Education is the biggest single item of public expenditure in Mexico.** Current estimates show that Mexico invests around 5 to 6 percent of its GDP in public education at all levels. This is at the higher end of the range seen in other countries in the Latin American and Caribbean Region. Spending for education, at all levels, is the biggest single item for the Federal Government and for all of the states. At the Upper Secondary Education level the World Bank

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<sup>7</sup> This result may be explained in part by quality problems at the lower secondary education level, as attested by students performance in national tests at 7<sup>th</sup> and 9<sup>th</sup> grades (ENLACE) and international assessments (PISA 2000, 2003, and 2006).

<sup>8</sup> Enlace is a national exam applied to all students in 12<sup>th</sup> grade.

<sup>9</sup> SEP has created the first survey of labor market trajectories that focus on those workers with high school and technical degrees. Based on this data a study is underway to assess the ability of the different technical careers to adapt to external shocks such as trade liberalization or the global financial crisis.

<sup>10</sup> The World Bank is currently funding in Mexico an evaluation based on a randomly selected group of students who receive accurate information on returns to education. The study will compare dropout rates of this (treatment) group to a control group over the course of two years.

estimates that the public sector spent in 2009 MX\$85.4 billion (US\$6.4 billion) or about 1 percent of GDP.

**30. The Federal Government finances the vast majority of public education in Mexico directly and indirectly.** The Federal Government finances a large percentage of education through direct transfers to different education providers (particularly in upper secondary and higher levels), through earmarked transfers to the states (particularly for basic education), and through specific federal and federal-state programs. In addition, general transfers<sup>11</sup> to states and municipalities can be used for education purposes. While states contribute a large part of their budget to education at various levels, few municipalities play an active role in education. Table 3 outlines the distribution of public resources for 2006 and 2009.

**Table 3: Estimated Public Expenditure on Upper Secondary Education in Mexico (million US\$)**

Education System	Source of Financing	Budget, 2006	Budget 2009
Federal Systems	Federal Government	2,067.2	2,108.1
Decentralized Systems			
	Federal Government	1,001.5	1,103.0
	State Governments	1,001.5	1,103.0
UNAM	Federal Government	220.9	183.6
State Universities			
	Federal Government	493.7	565.7
	State Governments	228.7	224.6
State Systems	State Governments	998.3	1,086.6
<b>Total</b>		<b>6,011.9</b>	<b>6,374.7</b>

**Note:** estimated values in current US dollars, using existing data on federal funding and estimates of state spending on upper secondary education.

**Source:** Bank Staff estimates.

**31. The main sources of financing for upper secondary are federal, states and university resources, and tuition fees.**

- **Direct financing of federal schools.** The Federal Government directly operates several sub-systems, which it finances through its budget. These schools are centralized and report to SEP.
- **Joint state-federal financing of decentralized schools.** The states operate a number of sub-systems that are jointly financed by the Federal Government and the respective State Government according to a previously agreed formula.
- **State financing of state schools.** Most states operate their own sub-systems in upper secondary education, which is directly financed by the state's budget.

<sup>11</sup> In Mexico's model of fiscal federalism, the states and municipalities gave up most of their tax authority in exchange for a 20 percent share of federal tax revenues.

- **University financing of university schools.** Most autonomous universities operate an upper secondary education system that they finance from their own resources. Universities are financed by the Federal Government (ranging from 50% to 90% of their budget) with the states and tuitions providing the rest.
- **Tuition.** Most upper secondary systems charge a nominal tuition, which is normally waived for poorer students (irrespective of their scholarship status).

**32. While the Federal Government provides clear and transparent information on its budgets and actual expenditure on upper secondary education, the quality of information from other sources varies greatly.** Most states and university systems do not provide reliable information on their expenditure on upper secondary education.<sup>12</sup>

### **The Upper Secondary Education Reform**

**33. The Calderon Administration has put reforming EMS as one of the principal items on its agenda.** The reform grows out of the concern that EMS system is losing too many students and that it leaves many graduates inadequately prepared for the labor market. Although the issues at the upper secondary level were well known, past administrations had focused most of their attention and resources on the basic education sector. The current administration, in contrast, shifted the focus to reforming upper secondary education, as described in the National Development Program and the Education Sector Plan.

**34. The reform was developed by consensus among stakeholders.** The Federal Government directly controls around 25 percent of enrollment in EMS and indirectly finances a large portion of the rest of the public system. In contrast to the basic education system, the Federal Government does not have a formal regulatory or supervisory role of the EMS system, so building consensus and providing intellectual leadership was the best way to encourage reform. Policy makers worked with universities to develop technical options for reform and consulted extensively with agencies in all EMS sub-systems to build consensus. One positive outcome of this process was the creation of a committee for upper-secondary education within the National Council of Education Authorities (*Consejo Nacional de Autoridades Educativas*, CONAEDU). This committee oversees and steers the implementation of the reform. The EMS committee meets monthly and consists of representatives from the central administration, state secretaries of education, representatives of the University Association (*Asociación Nacional de Universidades e Instituciones de Educación Superior*, ANUIES), observers from the other sub-systems in upper secondary education, and is presided over by the Sub-Secretary of SEMS.

**35. An extensive communication strategy was a crucial element of building consensus for the reform.** The school community (directors, teachers, students and parents), SEP Federal and state officials, and State Governments were identified as the reform's target groups (Box 2). An information campaign was designed to reach these groups through multiple media, such as radio, TV, internet, audiovisual presentations, workshops and printed materials. In addition, several face-to-face discussions were held with stakeholders to answer questions and address

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<sup>12</sup> States annually fill out a survey on education expenditures that reports expenditures at the upper secondary level. The quality of the data varies greatly as many states finance this level through different budget lines or combine spending with other items.

concerns. All stakeholders were involved in these activities, and through their participation felt included in the reform. In 2010, the communication campaign will continue to target the same groups but with a greater focus on early results of the reform and on practical tools which the teachers and schools could use in their daily practice.

**36. The upper secondary education reform addresses many of the deficiencies in the system.** The Reform of Upper Secondary Education through Diversity (*La Reforma Integral de la Educación Media Superior en un Marco de Diversidad*) creates the National Diploma System (*Sistema Nacional de Bachillerato*, SNB) as its central feature. Based on the Accord Number 442<sup>13</sup> that creates the SNB and was approved on October 17, 2007, this system has four themes that define the reform process. These themes are:

- ***Creation of a common curriculum framework.*** The reform creates a common curriculum framework with generic (common for all sub-systems), discipline specific, and professional standards with appropriate curricula. A central element of reform is the development of competence-based curricula that helps students apply the lessons to work and life. These include generic competencies (knowledge and skills that all students should have), disciplinary competencies (specific subject areas of knowledge) and professional competencies (specific job skills).
- ***Organization of sub-systems.*** Traditionally, the various sub-systems did not have any common standards and rarely worked together. The reform promotes clear guidelines and definitions for the six types of upper secondary programs. These guidelines help improve quality throughout the system.
- ***Certification.*** Both the basic education and the higher education system have well-defined national certificates that graduates receive upon finishing their schooling. The certificates facilitate entry into the work force and serve as a national guarantee of minimum quality. All students who are enrolled in the SNB will receive a national certificate, known as *Certificado Nacional de Bachiller* in addition to their school's own diploma. In addition, schools will be certified based upon the compliance with minimum standard requirements.

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<sup>13</sup> Acuerdo Número 442 por el que se establece el Sistema Nacional de Bachillerato en un marco de diversidad, issued in the Official Gazette (*Diario Oficial*) October 17th, 2009. This is the first of nine federal accords that formalize the upper secondary education reform. These are Accords number 444 (curriculum framework), 445 (educational options), 447 (teacher competencies), 449 (school director profile), 480 (entry into SNB), 484 (governing committee for the reform), 486 (student competencies), and 488 (amendments). These accords can be found at: <http://www.dof.gob.mx/>

### **Box 2: Upper Secondary Education Reform in Mexico: A Participatory Process**

A participatory working group, CONAEDU-EMS<sup>14</sup>, was established by SEMS in September 2007 in order to design the proposals for the education reform at the upper secondary level. The Sub-Secretary of Upper Secondary Education and representatives from the 31 states have been meeting monthly to discuss technical and political aspects of the reform. All decisions in this group are made by consensus or majority vote, if necessary.

Participation in the reform is voluntary; most sub-systems have joined and the reform has no systematic opposition. The Federal Government is signing agreements with the states. The new agreements incorporate both existing agreements with the states and the new arrangements required by the reform. To date, 29 out of 31 states have signed agreements. This process has respected federalism and the autonomy of institutions.

State authorities participated actively in the definition of curricular changes and the system organization. Representatives from federal, state, and autonomous schools and ANUIES actively participate. CONAEDU-EMS has organized numerous regional events that bring together federal and state officials with experts, teachers, the private sector, and school directors. For example, for the definition of the generic competencies, technical experts in SEMS prepared a first draft proposal that was reviewed by the state education authorities and revised by CONAEDU-EMS. Five regional meetings were held to bring together stakeholders. Following these comments and additional reviews by local experts, the generic competencies were approved by CONAEDU-EMS. A similar process was used for other reform proposals, although the organization of meetings and the stakeholders varied. For example, for the definition of the extended discipline and professional competencies, the states consulted with the private sector representatives.

In addition to bringing stakeholders into the state-level discussions, the Government developed an extensive communication strategy to disseminate the reform to EMS stakeholders. The school community (including school directors, teachers, administrative staff, students and parents), and federal and state officials were identified as the reform's target groups. The 2009 dissemination strategy focused its effort on reaching those groups through multiple communication elements. SEMS' dissemination strategy used a combination of instruments to reach stakeholders, including radio and TV programs, internet web sites and an e-journal, CDs for teachers, audiovisual presentations, informative workshops, and printed materials that were effective in increasing the awareness of the process. A private communication firm developed the necessary materials and followed up with stakeholders. This was supported by extensive travel to meet stakeholders to answer questions and to discuss their concerns. The 2010 dissemination strategy will target the same groups with a greater focus on the operation of the reform and how to take advantage of the reform to improve learning results. This round of dissemination will focus more on direct interaction with the stakeholders.

The initial phase of the consultation process focused on technical and political stakeholders. An important challenge is to continue to bring other stakeholders into the on-going dialogue. SEMS will invite civil society, private sector and indigenous representatives for future consultation. SEMS will request their participation in future regional meetings and will organize some CONAEDU-SEMS meetings with different stakeholders as observers.

- ***Improving management and mutual recognition of subsystems.*** EMS had no formal training or capacity building programs for teachers and school administrators. Most sub-systems had limited contact with the private sector. The reform introduces a

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<sup>14</sup> Consejo Nacional de Autoridades Educativas, Capítulo Educación Media Superior

number of tools including a tutor program for students, training programs for teachers and school administrators, guidelines to allow students to move more easily to different types of schools, a permanent learning assessment system, and a program of studies and evaluation to continue to refine the reform. One important aspect of the reform is the introduction of competitive hiring of school directors, a first for Mexico. This pillar also includes the mutual recognition of the subsystems, which allows students to move from one sub-system to another.

**37. In addition, the reform includes elements to improve the student's welfare and monitoring of reform program.** Outside of the Federal Resolution 442 and the SNB, the Federal Government is supporting a number of programs that are not part of the SNB but do contribute to the reform process. This includes the scholarship program that the Federal Government offers to qualifying students (see Box 3) and the program CONSTRUYE-T (see Box 4), which aims to improve the school environment and to enhance the students' holistic development.

### **Box 3: Covering the Poor: Upper Secondary Scholarship Programs**

The Government provides low-income students in Mexico with several scholarship options. The largest social assistance program in the country is *Oportunidades*, a conditional cash transfer program originally designed after the economic crisis of 1995. The program has achieved a significant and well documented impact on education, health and nutrition outcomes of its participants. Its coverage increased from the original 300,000 rural households to nationwide scope today, serving 5 million families, or approximately 25 percent of the country's total population and 60 percent of poorest households. *Oportunidades* provides students in upper secondary education with monthly grants between MX\$610 to MX\$690, depending on the student's grade, with girls receiving a higher amount. Students who graduate are eligible to receive an additional MX\$3,650 through a parallel program, *Jóvenes en Oportunidades*.

The Federal Government and the States also provide other scholarships to promote schooling. At the upper secondary level SEP provided around 300,000 scholarships in 2008 through four programs: (i) support scholarships, (ii) retention scholarships, (iii) academic achievement scholarships, and (iv) multiple modality scholarships. The total budget of this program was MX\$1.9 billion. Support scholarships are provided to low income students from first to third years in upper secondary schools. As with *Oportunidades*, the amount is higher for female students and upper grades students (the range is from MX\$500 to MX\$1,000 per month). Retention scholarships are provided to students with a minimum grade point average of 8 out of a maximum of 10. The grant is higher for female students, upper graders and students at technological and professional schools (the range is from MX\$625 to MX\$830 per month). There are two types of academic achievement scholarships: academic excellence (minimum average grade of 9) and arts and sports talent. Any student in public schools may apply for a scholarship.

The consolidation of scholarship programs has greatly reduced the transaction cost for students needing financial support for upper secondary education. The consolidation eliminated the need for students to apply for multiple scholarships. It has also reduced the paperwork that the student needed to present for the different scholarship programs. This has reduced the effective cost of applying for scholarships.

#### **Box 4: CONSTRUYE – T**

CONSTRUYE - T is a federal program that aims to promote inclusion, equity, multicultural understanding, and participation of youth at the upper secondary level. The main goal of CONSTRUYE - T is to reduce the risk factors that youth face while developing individual and social competences.

This program is an integral part of the upper secondary reform initiated in 2007. Although it has a social goal, it also contributes to develop students' general competences as defined by the reform process. CONSTRUYE - T now operates in all federal upper secondary schools and has initiated pilots in state schools.

CONSTRUYE - T promotes six dimensions of social development: (i) self-knowledge, (ii) healthy life, (iii) culture of peace and non-violence, (iv) school and family, (v) youth participation, and (vi) life project building. The program has three lines of actions: (i) the progressive implementation of a prevention system, (ii) training of school community actors, and (iii) building of a community protection network. The main program activities are carried out through workshops, public campaigns, training, conferences and exhibitions.

During the implementation of CONSTRUYE - T, the school community prepares a diagnostic report, identifying the risks that could affect upper secondary students and lead them to drop-out, such as drugs use, sexual behavior, gangs and crime activities, among others. Then, the school community prioritizes the problems and chooses the main actions that would be implemented in this school. Finally, the school community monitors these actions and evaluates the impact.

There are on-going initiatives to evaluate the impact of this program as a whole. However, there is a consensus that CONSTRUYE - T has been effective and is a key element in the reform progress and has been effective in reducing drop-outs.

#### **38. An important element of the reform is the new national student assessment system.**

Ensuring minimum standards and a common basic curriculum will strengthen sub-systems that have started to lose their relevance. Likewise, establishing a robust assessment mechanism will allow students, schools, and entire sub-systems to benchmark their progress. Specific professional standards will also strengthen each type of school and provide quality assurance for the education that they are offering. At the basic education level, the Federal Government introduced the Education Quality and Achievement Tests (*Exámenes de la Calidad y el Logro Educativo*, EXCALE) to EMS in 2005 as a sample-based assessment of learning in various subjects and grade levels. A sample-based test can provide the education system at both the State and national level with a broad understanding of student learning. The National Evaluation of School Academic Achievement (*Evaluación Nacional del Logro Académico en Centros Escolares*, ENLACE), a census-based assessment, was introduced in EMS in 2006 to complement EXCALE. It provides each student and school with an assessment of their individual learning and a broad comparison with peer groups. Starting in 2008, this multiple-choice test is taken by all 3rd grade students of upper secondary education.

**39. Participation in the reform is voluntary.** One consequence of the limited federal authority over EMS is that sub-systems can opt out. The reform is not an attempt to consolidate different EMS sub-systems. On the contrary, one of the main principles is strengthening the diversity. To date, the only major sub-system that has decided not to participate in the reform is the National Autonomous University (*Universidad Nacional Autónoma de México*, UNAM).

UNAM's students do not participate in any national learning assessment and the university's schools do not plan to adopt the common curriculum. UNAM students remain eligible for scholarships from SEP. The other 27 Autonomous Universities that operate upper secondary schools have joined the reform.

**40. Schools enter a voluntary certification process under SNB.** Schools start out as candidates to SNB and receive full certification only if they meet all of the required standards. Schools are evaluated against several criteria, including the quality of staff, physical infrastructure, and adoption of the common curriculum. It is expected that with time, competition and peer pressure will lead most schools to seek full certification in the SNB. Schools will have to be periodically re-evaluated to remain accredited.

**41. Early progress in implementing the reform is encouraging.** EMS reform was launched in 2007. Since then many of its elements have been implemented, including the creation of scholarship and tutoring programs, development and implementation of teacher training for the upper secondary level, and the competitive selection of school directors in Federal sub-systems. Some of these advances are further outlined in the DPL's policy matrix.

## IV. BANK SUPPORT TO THE GOVERNMENT'S PROGRAM

### Link to Country Partnership Strategy

**42. The current Country Partnership Strategy (CPS) with Mexico was discussed by the Board in April 2008, and it proposed a flexible program of lending and non-lending services.** A key principle established in the CPS is that the Bank's program should be closely aligned to the Government's own development strategy. One priority area for investment and advisory activities under the current CPS include improving the quality of education<sup>15</sup>. This proposed operation fits the pillars of Improving Competitiveness and Promoting Social Inclusion and Reducing Poverty.

### Collaboration with the IMF and other development partners

**43. World Bank and IMF staff meet on a regular basis to exchange views on the macroeconomic situation and prospects for Mexico.** These consultations occur at least quarterly and also involve exchange of documents and recent reports conducted by the respective teams. Work has focused on short term economic issues and on structural issues, such as the financial sector, labor market reform, and Mexico's competitiveness.

**44. Mexico and IMF have agreed to extend the FCL.** Mexico was the first country to qualify for the FCL and to request this new instrument. This was agreed for one year from April 2009 to April 2010 and in March 2010 it was extended for another year. This type of support during a global downturn is complementary to World Bank and IDB financing of the Government budget. The scale and precautionary nature of the IMF program provides a backstop on international reserves of the Central Bank, limiting the possibility of speculative capital outflows that could cause further damage to economic prospects. Meanwhile, Bank financing provides counter-cyclical and long-term financing of Government expenditure and allows the Government to limit crowding out of private sector access to local and international capital markets.

**45. The Bank has also collaborated with the Inter-American Development Bank (IDB) during loan preparation.** The IDB has actively supported the EMS reform. On the technical side, the Bank and IDB jointly provided support to SEMS to design and implement its evaluation program. Likewise, the IDB has provided support through its Competences Capacity Program for Human Resources project (*Programa de Formación de Recursos Humanos en Competencias*, PROFORHCOM) and to the development of the in-service teacher capacity program for upper secondary education (PROFORDEMS). The Bank is also collaborating with IDB and SEP on evaluating the impact of upper secondary education on labor market outcomes.

### Relationship to other Bank operations

**46. The Bank has several ongoing and planned operations in the education sector; this proposed DPL is the only Bank operation to address the upper secondary education reform.** At the preschool, primary and lower secondary education level Bank support includes the on-going *Mexico Education Quality* project (Loan 7347-MX, US\$240 million), which aims

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<sup>15</sup> A CPS update was presented to the Board on March 25, 2010 and emphasized the need for continued support for Mexico to recover from the crisis through a combination of investment loans and DPLs.

at improving the quality of education as measured by coverage, social participation, and educational outcomes. This project is the first phase of an APL and the second phase in the pipeline is the *School Based Management* project (US\$220 million). In addition, the new *Compensatory Education Project* (US\$100 million) has the goal of improving education quality, efficiency and learning of children in the poorest municipalities of Mexico. There is also Economic and Sector Work on the Mexican Alliance for Education Quality. At the higher education level, there is the *Tertiary Education Student Assistance APL I* (Loan 7346-MX, US\$171 million), which seeks to foster the sustainable and equitable expansion of tertiary education through providing financial assistance to qualifying students.

**47. The Bank is also providing financial support to *Oportunidades*.** The Support to *Oportunidades* Project (Loan L7708-MX, US\$1,504 million), approved in early 2009 co-financed the *Oportunidades* conditional cash transfer program, which had to be increased in response to the food price crisis and worsening economic conditions. During 2009 approximately 770,000 students in upper secondary education received the *Oportunidades* payment conditional on school attendance.

### Lessons Learned

**48. The design of the proposed operation takes into account the lessons learned from the overall program with Mexico, the recent Development Policy Lending Retrospective<sup>16</sup> and the Bank's work in other middle-income countries.** In particular, the most important lessons are presented in Box 5.

### Analytical underpinnings

**49. Prior strong analytical work and continued engagement has been a necessary precondition for this DPL.** The Bank has maintained a fruitful long-term dialogue with the Government focused on improving the performance of the education sector. The activities included organizing international conferences and workshops, preparation of analytical research, and high level policy notes and briefings.<sup>17</sup> The Bank has played a major role in elevating the use of education assessments in policy discussion, building on its support to the basic education system. Working with SEMS, the Bank provided significant support to the development of the EMS monitoring and evaluation system and to implementation of its impact evaluation strategy. This support, accompanied by own research conducted by SEP and other international organizations, has assisted Mexico in strengthening and reforming the education sector.

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<sup>16</sup> 2009 Development Policy Lending Retrospective, August 2009.

<sup>17</sup> These include Analytical and Advisory Assistance operations such as Mexico Education Quality I (P085591), Mexico Education Quality II (P095599), and Mexico Secondary Education (P1065567).

### Box 5: DPL Good Practices and the MUSE DPL

- **Principle 1 – Reinforce ownership.** The proposed operation is built around an extensive reform of the upper secondary system that was developed by major stakeholders through a participatory process. This process follows from a diagnosis and an analysis and a review of international best practices. The Bank’s participation provides external validation and technical support to the on-going process. The operation responds to the Government’s priorities and commitment to reform upper secondary education. The Bank facilitates continued political support as state and federal administrations change and the policy matrix will become an instrument to monitor progress.
- **Principle 2 – Agree up front with the Government and other financial partners on a coordinated accountability framework.** The Bank’s support is summarized in a brief and focused policy matrix that was agreed with the Government of Mexico. The matrix provides the accountability framework for the operation and contains a clear basis for measuring progress. To avoid ambiguity, the quantitative and qualitative dimensions of the policy actions to be completed at each stage of the series are well defined. The DPL is consistent with the IMF’s policy advice and reinforces the Government’s technical cooperation with the IDB.
- **Principle 3 – Customize the accountability framework and modalities of Bank support to country circumstances.** The Bank’s support is built around the reform’s own timetable with a matrix that was developed in close collaboration with the Federal Government after extensive consultations with stakeholders. The proposed operations are timed to provide support at strategic points. Mexico has strong analytical capacity and the Bank will focus on complementing this capacity in strategic areas.
- **Principle 4 – Choose only actions critical for achieving results as conditions for disbursement.** The matrix has been limited to the minimum size to maintain the coherence of the policy dialogue, including clear definition of benchmarks and triggers. The Bank has worked with the Government to focus on actions that are central to the main thrust of the reform. These actions centered on the definitions of standards, assessment, and accountability.
- **Principle 5 – Conduct transparent progress reviews conducive to predictable, performance based financial support.** The supervision process for the first loan will coincide with the preparation of the subsequent operation. During the intervening period the Bank will carefully monitor advances and provide support, as appropriate, to ensure the triggers agreed for the second operation can be met in a timely fashion.

**50. The analysis of international data highlighted how the low level of upper secondary education limits future Mexican competitiveness.** Stakeholders carried out a detailed analysis of population trends, their impact on EMS enrollment rates, and compared them to the patterns observed in other OECD countries.<sup>18</sup> Analysis relied on census, surveys, and institutional data to assess the determinant of high dropout rates from EMS despite the initial high intake into the system. The analysis found problems with equity and relevance in upper secondary education.<sup>19</sup> In particular, the 2005 National Youth Survey provided key information on the reasons for the high numbers of dropouts. These relate to the socioeconomic status of the student but also included students’ perception about quality and the organization of the education system that

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<sup>18</sup> OECD, Education at Glance (2006).

<sup>19</sup> For example, the *Mexico Expenditure Review* (World Bank, 2005) finds different rates of attendance to EMS according to income deciles.

were incorporated in the design of the EMS reform. The analysis of the *Oportunidades* experience<sup>20</sup> and the *Prepa Si*<sup>21</sup> intervention in the Federal District showed a positive impact of economic support to students, which was included in the reform.

**51. International best practices were reviewed to craft the current EMS reform.**<sup>22</sup>

Recent reforms in Argentina, Chile, and countries of the European Union provided key lessons to the SEP on the desired structure of an upper secondary system.<sup>23</sup> Policymakers examined carefully the international evidence on the definition of professional competences, comparing different curricula from Mexico, Spain, and Canada among others. At the same time, policy makers studied specific recommendations of recent analysis of secondary education reforms.<sup>24</sup>

**52. Prior analysis stresses the need to improve the links between the EMS and the labor market.** A recent OECD report<sup>25</sup> focusing on technical vocational education (TVE), recommended improving the consultation arrangements between employers and upper secondary education to guarantee the labor market relevance of the skills delivered. The EMS reform process was built on a wide consultation process that included private sector consultations to define the key set of competences, especially the professional ones. The OECD report finds a good interaction between teachers and the private sector, however it emphasizes that teachers should receive pedagogical training before entering the profession. The EMS reform includes a large scale teacher training program to overcome pedagogical shortcoming and to familiarize teachers with competence based teaching.

**53. The analysis of prior Mexican experience was an important input into the design of the reform.** Upper secondary education in Mexico is highly diverse. Prior to the national reform, a number of different sub-systems of EMS were experimenting with options to improve the quality and relevance of education in their system.<sup>26</sup> For example, some of the subsystems introduced competency-based curriculum. The open dialogue between different stakeholders in EMS under which the reform was designed allowed these different experiences to be incorporated into a consensus design.

**54. Ongoing research at SEMS aims to improve the performance of the reform.** The reform is based on solid research in the following areas: (i) dropout rates, (ii) low quality of service delivery, and (iii) entrance into the labor market, however further research is needed on those topics to take the reform to its full potential. The SEMS' ongoing analytical agenda includes the following studies:

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<sup>20</sup> SEDESOL (2008) "Oportunidades: Un Programa de Resultados".

<sup>21</sup> Casauban, Marcelo, Mario Carrillo and José Cerón (2009) "La Política de Desarrollo a Favor de la Educación: El Caso del Programa Prepa Si", (Galilei-Universidad de Puebla).

<sup>22</sup> The comprehensive analysis done by SEP is presented in the Annex of the Accord Number 442, which created the National Baccalaureate System.

<sup>23</sup> SEP reviewed literature included, Françoise Caillods, *Las reformas de la educación secundaria en países de Europa*; Marianelly Cerri (et al), *La reforma de la educación media en Chile* (Santiago, 2003), among others.

<sup>24</sup> For example, World Bank (2005) *Expanding Opportunities and Building Competencies for Young People: A New Agenda for Secondary Education*. Washington, DC: World Bank.

<sup>25</sup> OECD (2009), *Learning for Jobs: OECD reviews of vocational education and training in Mexico*

<sup>26</sup> Some studies of these reforms have been published, for example: UNAM, *Núcleo de Conocimientos y Formación Básicos que debe proporcionar el Bachillerato de la UNAM* (Mexico, 2001); Fausto Beltrán, *La experiencia de CONALEP en la educación Basada en Normas de Competencia* (Mexico, 1996).

- To complement the analysis of the determinants of the **high dropout rate**, two studies are being implemented. The first assesses the impact of the ongoing program of scholarships in reducing school dropouts. This tries to identify the importance of financial incentives at a stage in life when many youth have the possibility to work. The second study assesses the impact of imperfect information on dropping out of school. This addresses the concern that information does not flow well in the Mexican education system. The IDB is supporting the first study and the World Bank is supporting the implementation of the second study. These studies will provide information to improve the scholarship system that is being implemented.
- For **school quality**, SEMS is carrying out three studies. The first one assesses the importance of selection issues in cognitive achievement, comparing entrance tests into upper secondary education with ENLACE assessments in the final grade of upper secondary education. A second study will focus on factors affecting student effort, trying to dissociate them from socio economic circumstances. A third study will evaluate the Aligning Learning Incentives (ALI) pilot program. The World Bank is supporting the implementation of this pilot with an assessment of two of its main components: the teacher capacity building program and the tutoring program. An evaluation of the PROFORDEMS teacher training is proposed under this DPL. This evaluation will provide elements to assess the impact of the overall teacher training process on teaching practices.
- On **school to labor market transition**, a study is been implemented to assess who is better equipped to enter the labor market and cope with external shocks. This study will use a newly created survey of labor market trajectories that focus on workers with upper secondary education and technical degrees. This analysis will provide elements to fine-tune the set of competences implemented in the reform.

**55. SEP is interested in Bank support to monitor and evaluate the reform process.** The Bank will be able to learn from the reform process as it evolves. As this reform process is being studied by education sectors in other countries as a possible model for their reform, the Bank will be able to learn from the reform process as it evolves. The Bank will be able to offer feedback to other client-countries based on firsthand experience with Mexico's reform. The Government and the Bank identified three areas for technical cooperation: (i) the transition of upper secondary education graduates to the labor market and to tertiary education, with special focus on the most vulnerable; (ii) an assessments of the teacher training program (PROFORDEMS) on changes in teacher practices and improvements of student learning; and (iii) an assessment of the impact of the competitive selection of school directors on the efficiency (completion rates, dropout rates) of federal schools. As many of the above identified studies will require an assessment of the impact of these changes on poverty and social aspects, the Team and the SEP are preparing a joint proposal to the LAC Trust Fund for Poverty and Social Impact Analysis (PSIA) and are investigating other areas of financing.

## V. THE PROPOSED OPERATION

### Operation Description

**56. The proposed programmatic DPL aims to support the Government in the implementation of the Mexico Upper Secondary Education Reform to improve the internal efficiency of upper secondary education and its responsiveness to the labor market.** In particular, the proposed Development Policy Lending series, will assist SEP to develop and implement a series of policies and regulations defined in the Program Document which will create a more flexible, responsive and diverse upper secondary education system, with more private sector participation, supporting a governance and financing framework. The proposed Mexico MUSE DPL is the first in a three-part DPL series. The programmatic series would support actions in the following three areas addressing the key constraints of the EMS system: (i) improving flexibility of upper secondary education; (ii) enhancing quality and relevance of education; and (iii) reducing opportunity cost of upper secondary education. This will be accompanied by the development of robust monitoring mechanisms providing up-to-date information on the performance of schools and individualized data for parents on the learning achievement of their children. While the programmatic approach has been endorsed by both the Government and Bank management, DPL2 and DPL3 are subject to future agreement by the Government and the Bank and the Bank's lending capacity.

**57. The main higher level outcome of the reform program will be an increased number of better qualified graduates entering the labor market or continuing toward tertiary education after completion of upper secondary education.** By the end of the first operation in the series, the following results are expected (see Annex 3):

- Competence based curriculum implemented in at least 50 percent of all federal schools;
- A school evaluation system for entry in the SNB is operating;
- Mexico has implemented its first sample-based assessment (EXCALE) for 12<sup>th</sup> grade;
- 120,000 teachers have completed their training in PROFORDEMS;
- Based on the new assessment instruments and existing administrative data, INEE publishes for the first time the *Indicadores del Sistema de Educación Media Superior*;
- The number of scholarships has increased from 280,000 to 320,000 in upper secondary education for the 2009-2010 school year; and
- SEMS has initiated a comprehensive evaluation study of the scholarship program.

**58. At the end of the programmatic series the following outcomes are expected (see Annex 3 for measuring, baseline and end of program values):**

- Improved flexibility in upper secondary education;
- Improvements in quality and relevance of the upper secondary education curriculum;
- Improved student learning as measured by national assessments;
- Improved teaching quality in upper secondary education due to massive in-service training and certification of teacher competences; and
- Increased coverage at the upper secondary level among the poor.

## KEY POLICY AREAS

**59. The Policy Matrix for the MUSE DPL series is presented in Annex 2 and summarized in this section.** The first operation includes six prior actions and two benchmarks in three policy areas. In addition, five substantive reform actions undertaken by the Government before December 2008 contributed substantially to the EMS reform. The Government and the Bank have agreed to monitor the benchmarks as important complementary measure of progress on the reform. The actions include the creation of the SNB, the institutional framework for evaluation and accreditation of schools, the definition and dissemination of competences to be achieved by students, the assessment of those competences, the competitive selection and professionalization of federal school directors, and the consolidation of a scholarship program targeting the poorest not covered by other programs. Table 4 summarizes the proposed prior actions for DPL1 as well as indicative triggers for DPL2 and DPL3.

**60. The actions supported under this DPL address the three main constraints to increasing the number of better qualified graduates from upper secondary education:**

- ***Improving Flexibility of Upper Secondary Education.*** Mexico has created the SNB based on defined competences, to ensure a minimum standard for all upper secondary education graduates and to facilitate transfers of students between different sub-systems to accommodate changing labor market conditions.
- ***Enhancing Quality and Relevance of Education.*** The upper secondary education system is shifting to transparent competence-based curricula that would allow both the students and prospective employers to understand and evaluate the skills obtained in upper secondary education. This shift is the outcome of national consultations with all the key stakeholders in upper secondary education. All programs created as a result of this reform will be evaluated as part of the national evaluation system and may serve as examples for reforming other education sub-systems, both in Mexico and elsewhere.
- ***Reducing Opportunity Cost of Upper Secondary Education.*** To reduce opportunity costs for the poorest, the Secretariat of Public Education (*Secretaría de Educación Pública, SEP*), in coordination with the *Oportunidades* program, consolidated the existing upper secondary scholarship program while expanding its coverage to more than 250,000 students from poor households.

**Table 4: Policy Actions Supported by the Mexico MUSE DPL Series**

Prior Actions for DPL 1	Triggers for DPL 2	Indicative Triggers for DPL 3
<b>1. Improving Flexibility of Upper Secondary Education</b>		
<ul style="list-style-type: none"> <li>- SEP has established a National Upper Secondary Education System and established the institutional basis of said system.</li> <li>- SEP has established the set of minimum competences by subject that students need to achieve by the end of upper secondary education in the National Upper Secondary Education System.</li> </ul>	<ul style="list-style-type: none"> <li>- Competence-based curriculum is implemented in at least 50 percent of all federal schools.</li> <li>- SEP has completed the definition of generic, disciplinary and professional competences to be achieved by the end of upper secondary education.</li> </ul>	<ul style="list-style-type: none"> <li>- Competence-based curriculum is implemented in most state and autonomous schools participating in the National Upper Secondary Education System.</li> </ul>
<b>2. Enhancing Quality and Relevance of Upper Secondary Education</b>		
<ul style="list-style-type: none"> <li>- SEP has established a national evaluation system for the National Upper Secondary Education System.</li> <li>- SEP, in collaboration with UPN and ANUIES, has developed an Upper Secondary Education Teacher Training Program (PROFORDEMS) which is benefiting teachers from all states.</li> <li>- SEP has decided to establish a civil association (COPEEMS) to evaluate the entry of schools in the National Upper Secondary Education System and has issued the guidelines for the by-laws of said civil association.</li> </ul>	<ul style="list-style-type: none"> <li>- Mexico has carried out and disseminated a 12<sup>th</sup> grade learning assessment nationwide based on basic competencies that includes mathematics, language, and at least one other area (natural science or social science).</li> <li>- First sample-based education examination (EXCALE) in Upper Secondary Education is completed. The sample is statistically representative at the national level and for major EMS sub-systems. Results of EXCALE disseminated to the public and analysis and diagnostic of EMS prepared.</li> <li>- COPEEMS has begun evaluation and analysis of schools for entry into the SNB.</li> <li>- 70 percent of all federal school directors have been selected using the competitive selection process.</li> </ul>	<ul style="list-style-type: none"> <li>- A full assessment of basic competencies (mathematics, language, natural science, and social science) has been carried out. Results disseminated to the public.</li> <li>- Mexico has initiated a second sample-based assessment (EXCALE) in EMS with national and educational levels representativity.</li> <li>- COPEEMS has defined the criteria for school accreditation.</li> <li>- 100 percent of all federal school directors have been selected using the competitive selection process.</li> </ul>
<b>3. Reducing Opportunity Cost of Upper Secondary Education</b>		
<ul style="list-style-type: none"> <li>- SEP has consolidated its scholarship program targeting poor students who are not covered by the <i>Oportunidades</i> Program or by any other scholarship program.</li> </ul>		<ul style="list-style-type: none"> <li>- Results of the Impact Evaluation of the ongoing scholarship program, if relevant, incorporated into the scholarship program.</li> </ul>

## Policy Area I: Improving Flexibility of Upper Secondary Education

**61. The first policy area focuses on establishing competence-based curriculum, which is essential for achieving system flexibility as well as comparability among institutions.** The DPL supports actions to create a new SNB, to implement an in-service teacher training program, to implement an accreditation body for schools entering the SNB, to re-assess their accreditation status through time, and to create a body to finalize the competence curricula for technical programs. The Government has made substantive groundwork to implement this Policy Area, including: (i) SEP has created the institutional basis for the Sistema Nacional de Bachillerato (SNB) through the publication of nine Federal resolutions (*Acuerdos Secretariales*) in the *Diario Oficial* in 2008 and 2009; and (ii) SEP has established the set of minimum generic competences that students need to achieve by the end of upper secondary education in the National Upper Secondary Education System.

**62. *Establishment of the National Upper Secondary Education System.*** The system lays the foundation for: (i) a common competence-based curriculum framework for upper-secondary education; (ii) the creation of all supporting mechanisms to implement the reform (student mobility, profiles for teachers and directors, among others); and (iii) the national certification instrument for upper secondary schools to be assessed at entrance and for accreditation purposes. Given the importance of this action the Government's policy measures in this area have been designated as a **Prior Action** for **DPL1** and **Trigger** for **DPL2** (implementation coverage of the competence based curriculum in federal schools) and **DPL3** (implementation coverage of competence based curriculum in all state schools and autonomous schools participating in SNB). **DPL1** recognizes the Government's recent actions through the agreements signed with the states. The expected outcome at the end of the program is improved flexibility in upper secondary education. This common framework for the curriculum will improve transferability as competences can be more easily identified and tested by schools.

**63. *Competence Standards.*** Given the importance of having clear learning standards, the Government's policy measures of establishing a set of minimum competences by subject to be achieved by the end of upper secondary education is a **Prior Action** for **DPL1**. Within the SNB, programs will be classified as: (i) general programs; (ii) programs with a labor market orientation; and (iii) technological and professional programs. These different programs would offer the same generic and basic discipline specific competences; however they differ in the coverage and intensity of development of extended discipline specific competences, basic professional competences, and professional extended competences. As a benchmark, for **DPL1** it will be considered that stakeholders have formed a committee to create national competence standards for technical programs in EMS. At the end of the program, and as a consequence of the National Diploma System and Standards, it is expected that at least 40 percent of the upper secondary schools will be accepting student transfers and validating equivalencies.

## Policy Area II: Enhancing Quality and Relevance of Upper Secondary Education.

**64. As part of Mexico's public sector reform, SEMS is moving toward results-based management and performance-based budgeting.** A fundamental aspect of these approaches is the emphasis on monitoring and evaluation of policies and programs – a challenge that involves a range of activities, from monitoring and assessing progress in the implementation of programs, to measuring changes in student learning and evaluating the impact of specific interventions on those outcomes. A teacher training program developed by PROFORDEMS in association with

the National Pedagogical University (*Universidad Pedagógica Nacional, UPN*) and ANUIES has been designed and initiated. The Government has undertaken substantive groundwork to implement this Policy Area including: (i) A census assessment of 12<sup>th</sup> grade learning to evaluate knowledge in mathematics and language was carried out and disseminated; (ii) A teacher training program was developed by PROFORDEMS in association with UPN and ANUIES; and (iii) SEMS has introduced a framework for the competitive selection of school directors and it has begun the process of competitive selection in federal schools.

**65. *Evaluation System for Upper Secondary Education.*** SEMS has developed an integrated quality assessment that both builds on existing resources and introduced new tools in the sector. At the center of the quality assessment system is a new learning assessment (test) that is being given to all students at the end of 12<sup>th</sup> grade. This complements the ENLACE assessment that is currently administered in the basic education system to all students in 3<sup>rd</sup>, 4<sup>th</sup>, 7<sup>th</sup>, and 9<sup>th</sup> grades. The new assessment was first given at the upper secondary level during the 2007-2008 school year and it was based on evaluating mastering of the content. The assessment was repeated in the 2008-2009 school year, which makes it possible to compare the efficiency of different types of upper secondary sub-systems. At the same time, SEMS is updating its databases and correcting the information that it has on the education system and education finance. This will allow policy makers to analyze what it is being spent on upper secondary education and what the results are. With the assessment information about the operation of the upper secondary system, SEMS will then be able to improve the allocation of resources. SEMS will also expand the coverage of EXCALE (a sample-based student assessment) to include the upper secondary education level. SEMS has direct authority over the federal school systems and it has substantial influence through its technical dialogue and financing to persuade the other sub-systems to participate in the student assessments.

**66.** Given the importance of assessment, the Government's policies in establishing a national evaluation system for the National Upper Secondary Education System has been designated as a **Prior Action** for **DPL1**. As a benchmark for **DPL1**, the Government has carried out and disseminated a census assessment of 12<sup>th</sup> grade learning in mathematics and language. As a **Trigger** for **DPL2**, SEP will conduct and disseminate the results of a universal assessment at the end of 12<sup>th</sup> grade to measure student performance on basic competencies (mathematics, language, and at least one other area in natural science or social science). It will initiate a first sample-based assessment (EXCALE) in upper secondary education that will be statistically representative in all states and for all major sub-systems. For **DPL2**, SEP has initiated a study of the factors associated with student performance on the learning assessment and the value-added of the upper secondary education reform. As **Triggers** for **DPL3**, SEP will conduct a full assessment of basic competences (mathematics, language, natural science, and social science) and results will be disseminated to the public. It will also initiate a second application of EXCALE in upper secondary education. The expected outcome at the end of the program is improvements in quality and relevance of the upper secondary education curriculum.

**67. *Teacher Development and Training for the reform.*** MUSE will also support a key element for the success of the reform: teachers. The PROFORDEMS which was developed by the Government, in collaboration with UPN and ANUIES, and is benefitting teachers from all states, has been designated as a **Prior Action** for **DPL1**. This capacity building program is crucial to re-tool teachers to properly embrace and teach a curriculum based on competences. For **DPL2**, PROFORDEMS continues with the teacher training activities and SEMS has designed and started implementing a comprehensive evaluation of PROFORDEMS, including its impact

on key teaching practices<sup>27</sup>. For **DPL3** PROFORDEMS has completed the teacher training activities. The expected outcome at the end of the program is improved teaching quality in upper secondary education due to this in-service training and certification of teacher competences.

**68. National Certification of Schools for entry to SNB.** Given the importance of supervising the quality of the schools at entrance, the Government's policy measures in this area have been designated as a **Prior Action** for **DPL1**. **DPL1** recognizes the Government's recent actions to establish the National Council of the Assessment in Upper Secondary Education (COPEEMS) to oversee the accreditation of schools and their entrance into the SNB. The evaluation and analysis of schools for entry into the SNB will be a trigger for **DPL2**; and the definition of the criteria for school accreditation by COPEEMS will be a trigger for **DPL3**. The expected outcome at the end of the program is improved student learning due to focusing on student performance and school value added as main criteria for school accreditation over time.

**69. Accountability mechanisms.** In addition to clear standards, it is important to have a system to monitor outcomes and hold the schools accountable for outcomes. For this reason, the Government's actions of introducing a framework for the competitive selection of school directors and the application of the process for the competitive selection in 70 percent of federal schools will be a trigger for **DPL2**; and the application of this hiring process to all federal schools will be a trigger for **DPL3**. This process also includes a yearly performance evaluation of school directors.

### **Policy Area III: Reducing the Opportunity Cost of Upper Secondary Education.**

**70. Helping poor students stay in school.** **DPL1** recognizes as a **Prior Action** the consolidation of existing scholarship programs (*Apoyo, Retención, and Excelencia*) targeting poor students who are not covered by *Oportunidades* or any other scholarship program.

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<sup>27</sup> The evaluation is facilitated by the progressive entrance of teachers into POFORDEMS. This phased approach creates a *de facto* control group, whilst the trained teachers constitute the treatment group. A comparison of teaching best practices from a representative sample of the treatment and control groups will be performed to assess the effectiveness of the training process.

### **Box 6: *Oportunidades* and SEMS Scholarships**

*Oportunidades*, the largest social assistance program in Mexico, was originally designed in response to the severe economic crisis and devaluation of the Mexican peso in 1995. Since 1997, the program has operated in rural areas. The program expanded to semi-urban areas in 2001 and to urban areas in 2002. About 70 percent of beneficiary families of *Oportunidades* live in rural areas, 16 percent live in semi-urban areas and 14 percent in urban areas. For families with children in upper secondary, *Oportunidades* provides a monthly grant between MX\$610 to MX\$690 with a condition that the youth continue in school.

SEP has offered scholarships to upper secondary students before the reform initiated in 2007 but these programs were run by different units and were uncoordinated. The reform led to an increase of funding and the consolidation of these scholarship programs in a common platform. This is designed to fill the gap not covered by *Oportunidades*, including the urban poor and those not eligible for *Oportunidades*. There is careful coordination between the programs, including sharing databases of recipients.

One of the main differences between these two programs is that SEMS provides the grants directly to students while *Oportunidades* transfers the money to parents. In addition, SEMS provides a large number of their scholarships to academically successful students ranging from MX\$500 to MX\$1,000 per month. SEMS is carrying out an impact evaluation of its scholarship program to identify which changes are needed to this program.

SEMS and *Oportunidades* have collaborated closely by sharing data on beneficiaries to eliminate the possibility of double coverage. In addition, SEMS sets the amount of its scholarships following *Oportunidades*' lead to ensure that are similar amounts. Finally, SEMS uses data and analysis from *Oportunidades* to determine its own income cutoffs.

**71. *Improved monitoring of results.*** **DPL1** recognizes that SEP has begun a comprehensive evaluation study of the scholarship program and by **DPL2** it is expected that the results of this evaluation will be published and discussed within the sector. As a **Trigger** for **DPL3**, SEP will fully incorporate the results of the impact evaluation into the design of the scholarship program, if relevant.

**72.** The expected outcome from these actions at the end of the program is increased coverage at the upper secondary education level among the poor.

## VI. OPERATION IMPLEMENTATION

### Poverty and Social Impacts

**73. The upper secondary reform supported by this operation is expected to have positive distributional effects.** The education reform aims to increase the coverage of upper secondary education while increasing the quality and relevance of learning. The main groups that will be affected by the reform are: (i) students and their parents; (ii) teachers and school directors; and (iii) the private sector.

**74. Students and their parents will benefit from the reform.** One of the major elements of the reform is an increase of funding and a consolidation of scholarship programs. This is designed to fill the gap not covered by the *Oportunidades* program, including the urban poor and those not eligible for *Oportunidades*. This will lower the cost of upper secondary education for many students. The introduction of free transfer between sub-systems will also lower the effective cost of upper secondary education for many students who need to transfer schools. The expansion of distance education will also benefit students with access problems.

**75. The increased focus on relevance and curriculum will also benefits students, particularly the poor.** One major aspect of the reform is the establishment of a competency-based curriculum that is focused on skills needed after graduation. This will benefit all students by improving the quality and relevance of education and improving the transition from school to work for those graduates seeking employment. This is especially important for poorer students, who are traditionally at a disadvantage in finding employment. The introduction of CONSTRUYE-T will also help make schools more relevant for many youth.

**76. Teachers and school directors will largely benefit from the reform.** Teachers and schools directors are often in the forefront of opposition to education reform, however in the case of the EMS reform they have generally benefited and have shown little opposition. Teachers and directors in public schools are receiving free training through PROFORDEMS, which will increase their effectiveness and contribute to their professional status. PROFORDEMS is also offering post-graduate education for teachers and directors. The competitive hiring of directors applies to new positions in federal schools and incumbent directors will not have to give up their job until their terms end.

**77. The private sector and the Government will benefit from the reform.** The private sector has long expressed its concern about the quality of upper secondary graduates and the reform responds to these concerns. The private sector is working closely with the education authorities to design relevant professional competencies and the accompanying curriculum. Private sector organizations have participated in numerous national and regional discussions on the reform. This is expected to improve productivity of private sector firms as new workers will have appropriate skills. This is also expected to have a positive impact on wages, employment, and poverty throughout the country. Many aspects of the reform were included in the President's National Development Strategy and other areas of the Federal Government have strongly supported the reform.

**78. The impact of the reform will come at different speeds, depending on the sub-system.** Participation in the reform is voluntary and sub-systems have substantial leeway in how to implement the different elements of the reform. The federal schools, which are directly

operated by SEMS, have been the fastest in implementing the reform. In general, schools with better infrastructure and more educated teachers will be able to advance faster in the SNB. This may lead to a situation where schools in poorer areas will need more time to take advantage of the reform. This may temporarily increase inequality in the sector and the Government is taking actions to ensure that poorer schools do not fall behind. In particular, PROFORDEMS (the federal teacher's training program) is open to all public teachers, including those from the poorest schools; a description of the competences (generic, discipline specific, and professional) will be available to any school; and the poorest students will be likely to receive scholarships (through SEMS or the expanded *Oportunidades*) increasing the terminal efficiency of these school. Since the scholarship program is centralized, it is being implemented at the same time in all of the sub-systems and is available to all students in public EMS. Poorer schools will not be disadvantaged in entering and advancing in the SNB in its first phase; entry and accreditation will largely require improvement in school management and training of school directors and teachers.

### **Environmental Aspects**

**79. The proposed program is not likely to have a significant effect on the environment, forests, or other natural resources.** The principal environmental impact of the reform is short-term construction related to future upgrading of existing school infrastructure to meet the physical infrastructure criterion that might be required for full SNB accreditation. These impacts would be short-term in nature and small in scale as they would occur on existing school sites. Under the accreditation criterion, physical infrastructure would be upgraded using best practice to minimize and manage these impacts. Upgrading is only likely to occur in the final phase of accreditation, which is not expected for several years. Though a decrease in drop outs and an increase in EMS enrollment is expected, because currently the EMS system has excess capacity in many schools and can absorb additional students, no new school infrastructure will be constructed. In areas where the demand for EMS is high, such as the Federal District, SEMS is experimenting with a number of options for distance education to meet the additional demand without new school infrastructure. During the proposed DPL program, the Government does not plan to increase its budget for school infrastructure. There are no other expected environmental impacts associated with the reform.

### **Social Aspects**

**80. The upper secondary reform supported by this operation is expected to have an overall positive social effect.** The education reform aims to increase the coverage of upper secondary education while increasing the quality and relevance of learning. The main groups that will be affected by the reform are: (i) students and their parents; (ii) teachers and school directors; and (iii) the private sector.

**81. Mexico has a large indigenous population that has significantly lower levels of education.** Estimates show that 7.3 percent of the Mexican population speak an indigenous language and 6.1 percent classify themselves as indigenous. While all states have an indigenous population, most indigenous communities are rural and located in mostly poor states. They are disproportionately poor: using the municipal poverty data for 2002, poverty among the rural indigenous population was estimated at 90 percent compared to 47 percent for rural Mexico. A major challenge that indigenous youth face in upper secondary education is the low graduation rate and low quality of prior education. The 2000 census shows that only 3.1 percent of the

indigenous population aged 15 years and older has upper secondary education or higher compared to 10.2 percent of the general population.

**82. The Government has a number of strategies to address the low education levels of the indigenous population.** The EMS reform has taken specific actions to increase the access of indigenous youth to upper secondary education, integrating existing programs with new initiatives. More than 26 percent of *Oportunidades* families are indigenous and *Oportunidades* operates in all indigenous municipalities. SEMS' scholarship program provides complementary support, focusing largely on urban and semi-urban populations. The consolidation of scholarship programs has greatly reduced the transaction cost for students by eliminating the need to apply for multiple scholarships and reducing the paperwork required for the different scholarship applications. SEMS collects data on the gender and ethnicity of its scholarship applicants. The reform's strategy towards indigenous students is consistent with its commitment to diversity: there is no one size fits all package or curriculum. Its pedagogical approach states that learning needs to be contextualized to the cultural and socioeconomic conditions of the students. All curricula need to satisfy well-established generic competences, one of which is to be "respectful of different cultures and diversity of beliefs, values, and social practices."

**83. There are many state and federal programs aimed at increasing access and relevance of EMS for indigenous youth.** For example, Puebla is expanding its EMS system to all municipalities and Oaxaca initiated a *Bachillerato Comunal* program that targets indigenous youth with a community-focused curriculum. SEMS is introducing *Bachillerato Integral Bilingüe* which is a Spanish and indigenous language curriculum. Likewise, SEMS' Rural Technological Education Directorate (DGETA, *Dirección General de Educación Técnica Agropecuaria*) is expanding its community focused schools. DGETA will promote inter-cultural relations and the rights of all students along with a variety of strategies including tutors, new curriculum, food programs, and temporary boarding. CONSTRUYE-T, which operates in federal schools, and is expanding to other sub-systems, promotes intercultural awareness and understanding.

**84. Data will become available on the coverage of EMS by ethnicity.** In addition to social data on scholarship applicants, the reform will lead to greater data on gender and ethnicity at the upper secondary level, which will make it possible to monitor the equity of the reform. Schools and sub-systems that enter the SNB will have to provide data through the new federal upper secondary monitoring system, which includes data on gender, ethnicity, and other social indicators. In addition, the new EXCALE assessment of learning will include detailed social background information that will allow tracking of learning by different groups.

**85. The reform has strong mechanisms to ensure voluntary participation, receive feedback, and respond to complaints.** Training for school directors and teachers is voluntary and is open to any school director and teacher in federal, state, and public university EMS schools at no cost. Staff from private sector schools may also participate if they pay the cost of the training. For teachers, there are both classroom-based and distance options to facilitate training for all teachers. The reform's EMS communication strategy (see Box 2) includes feedback mechanisms to transmit stakeholders' concerns to education authorities. In addition, the reform has formal complaint mechanisms, both by phone and through the internet. This is available for school directors, teachers, and students interested in scholarships.

## Implementation, Monitoring and Evaluation

**86. The Secretariat of Public Education is responsible for the implementation of this DPL.** Together with SHCP, SEP will collect the necessary data to assess implementation progress and report to the Bank, taking into account advances with the reform and statistics on education quality, coverage, and management. Data will come from existing administrative databases and surveys at the household and school level.

**87. A common monitoring system for all schools participating in SNB will be agreed among the main stakeholders in EMS.** SEMS implemented in 2007 the SIGEMS (*Sistema de Mejora Continua de la Gestión de la Educación Media Superior*) to monitor federal schools.<sup>28</sup> The SEMS is in a dialogue with states and the sub-systems to develop a unitary information system for the schools, for which it is offering the SIGEMS as an initial platform. It is expected to include a core set of indicators common to all schools, and customized indicators for each subsector and state. This system will allow monitoring the impact of the reform on participating schools.

**88.** The ENLACE assessment includes a national representative sample for each of the sub-systems (sample size is about 25 percent of the upper secondary schools) in Mexico. Socioeconomic information is collected from the students which allow monitoring the impact of the reform on the schools and assessing which ones are lagging behind characterized by socioeconomic and geographic information.

## Fiduciary Aspects

**89. As documented in the 2003 Country Financial Accountability Assessment (CFAA), 2007 Country Procurement Assessment Report (CPAR), and other analytical work, the public financial management (PFM) systems at federal level are adequate to support development policy lending.** As envisioned in the CPS, the Bank is collaborating with the Mexican 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 by a number of knowledge services to the SHCP and Secretariat of Public Administration (SFP) through different instruments. Likewise, the Bank has reviewed the PFM systems of the Mexican federal administration in the context of a number of different DPLs approved in 2008 and 2009.

**90. In the last decade, the Mexican Government has introduced a number of laws and 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 practices.** The funding from this DPL will support the Federal Expenditure Budget (*Presupuesto de Egresos Federales*, PEF) and, accordingly, will be subject to provisions of the annual PEF Law, the Federal Budget and Fiscal Responsibility Law, the Government Accounting Law, the Manual of Budget Procedures among others. This set of legal and regulatory arrangements, together with their operating systems, provides for sound

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<sup>28</sup> The SIGEMS complements the existing 911 monitoring system in the federal schools. The 911 system, which operates in all schools in both the basic and upper secondary levels, contains over 300 indicators. The 911 system does not contain information on students, which SIGEMS includes.

budget formulation, execution and control arrangements for public expenditures. Other internal control aspects are ruled by the Federal Public Administration Internal Control Standards.

**91. Although rules and procedures governing the budget, accounting and public expenditure laws are clear and comprehensive, and the budget monitoring and control systems work well, there remain some areas where further advances are needed.** 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 Mexican Government is working towards achieving the envisioned reforms in PFM, including harmonized budget and accounting financial reporting, modernization of its treasury operations including full implementation of the Treasury Single Account, as well as designing an integrated financial management system at federal level. With Bank support, progress has been made to move towards international standards in different areas of the country PFM.

**92. The Bank is collaborating with the Government in addressing the main recommendations from the CPAR.** Those recommendations resulted from close collaboration with the main public sector stakeholders and incorporate the views of representatives from 22 Mexican private sector organizations, international development partners, representatives of civil society, and numerous government officials involved in public procurement. The main recommendations from the CPAR were: (i) Mexico's procurement system requires modernization, simplification and more flexibility to respond to rapidly changing market conditions; and (ii) the system should be more open and competitive and less focused on compliance and control. The reforms proposed in the CPAR would better align the procurement system with the government's objectives and generate substantial savings through reduced transaction costs and lower market prices from suppliers. They would also enhance transparency, predictability, and public trust in the system.

**93. As for external oversight, the Federal Supreme Audit Institution conducts, on a regular basis, a number of performance, financial and compliance audits on Government programs.** The annual public accounts are prepared and sent to Congress within 4 months of the end of the fiscal year. The external audit of these accounts is undertaken by the Auditor General and presented to the legislature fourteen months after the end of the fiscal year. Audit reports are comprehensive and there is a system in place to follow up on audit findings and recommendations. The results of audits by the Auditor General are made public in the annual audit report on the Federal Public Accounts.

### **Disbursements and Audit**

**94. 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 NAFIN will be the financial agent of the Borrower with regard to this DPL<sup>29</sup>. Under this arrangement, upon effectiveness the Bank would deposit the single tranche disbursement to a designated account in US Dollars of the financial agent for subsequent credit by the financial agent to an account of the National Treasury (SHCP/*Tesorería de la Federación*,

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<sup>29</sup> 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.

TESOFE) used for budgeted expenditures. Based on the review of the 2008 and 2009 audit reports of NAFIN and the extensive experience between the Bank and NAFIN regarding funds flow from bank-financed operations, 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.

**95. Based on the assessment of the borrower’s current PFM and the conclusion that the fiduciary arrangements for this operation are adequate, the Bank will not require an audit of the designated account and no additional fiduciary arrangements are deemed necessary for the DPL.**

## **Risks and Risk Mitigation**

**96.** The Operation is subject to four types of risks:

*Macroeconomic risks:* The ongoing crisis can turn out to be more prolonged or severe than currently expected and a lower level of economic activity than currently expected will have an impact on public sector revenue. A significant fall in revenues may make it difficult for the Government to finance the ambitious reform program and it may be hard for states to focus additional resources on the sector. However, the strong consensus on the importance of the reform makes it unlikely that the macroeconomic situation will prevent the Government from implementing the reforms in the proposed MUSE DPL series.

*Political risks:* The Upper Secondary Education sector in Mexico is diverse with many actors. There is likely to be differences in opinion between these different actors. The key stakeholders include the multiple upper education sub-systems (federal sub-systems, state sub-systems, and university sub-systems) and their teachers and respective unions. Parents, students, and the private sector are also important stakeholders in the process. Some stakeholders may oppose the changes brought by the reform. The reform program is strongly supported by the Federal and all of the State Governments which reduces the risk that future changes in Government might slow or de-rail the program. There has been little open opposition but some sub-systems have been slow to implement the reforms. To minimize the political risk, during the design and implementation of the reform, the Government has undertaken extensive consultations with key stakeholders and civil society on the rationale and strategies of the reform. Final design of reform takes into account concerns identified during these consultations.

*Social risks:* The upper secondary education system in Mexico is highly diverse, mirroring the cultural diversity in the country. The reform is being designed within the context of this diversity. Its objective is to strengthen the different EMS systems rather than to create a “one-size fits all” national system. While different sub-systems will adopt the reform at different speeds, the reform is designed to benefit all sub-systems and its proposals can be adopted regardless of a sub-system’s resources. To address the risk of social exclusion of vulnerable groups the reform promotes equity of access to upper secondary education, incentives for student retention, and improvements in the relevancy of the curriculum. It also promotes the transferability of the students across sub-systems and in the mid- and long term, mobility across sub-systems. The Government is targeting

poorer schools and students to receive additional support and technical assistance. The Government has a number of programs that focus on indigenous students and many states have programs as well. The reform will promote the collection of data that will make it easier to monitor the equity impact of the reform.

***Sustainability risks:*** The first sustainability risk refers to the nonparticipation of key stakeholders, such as subsystems or teachers' unions. One consequence of the limited Federal authority over EMS is that any sub-system can opt out from the participating in the reform process which might affect the sustainability of the reform. Currently, almost all major sub-systems are participating in the reform. The only sub-system that has decided not to participate is the National Autonomous University's (UNAM). UNAM's students are eligible to scholarships from SEP and UNAM professors have participated in the design of curriculum content and student assessment tools. SEP does not see this as a risk to implementing the reform. Teachers' unions have generally supported the reform. The Government has had a proactive dialogue with the unions and many unions actively support the reform due to the support that it provides teachers through the in-service and post-graduate training program. The Government does not expect a major opposition to the reform from the unions. A second sustainability risk refers to the change in administration after the 2012 Federal election. The outcome of the election might jeopardize the reform program; however the election is unlikely to halt the reform as it will be well advanced by 2011 and is broadly supported politically. A third sustainability risk arises if subsequent loans do not materialize. While the Mexicans value the Bank's technical, financial, and political support, the country has the capacity to carry out the reforms, and while the reform may be delayed without Bank support, they are unlikely to be abandoned.

## ANNEX 1. LETTER OF DEVELOPMENT POLICY

"2010, Año de la Patria. Bicentenario del Inicio de la Independencia y Centenario del Inicio de la Revolución".

**SUBSECRETARÍA DE EDUCACIÓN MEDIA SUPERIOR**

SECRETARÍA DE  
EDUCACIÓN PÚBLICA



México, D. F., 18 de marzo de 2010.

**Sr. Robert B. Zoellick**  
**Presidente**  
**Banco Mundial**  
**P r e s e n t e**

**O f i c i o: No. 0 3 3 8**

**Referencia:** *Carta de Políticas para el Programa de Apoyo a la Reforma de la Educación Media Superior en México.*

Estimado señor Zoellick,

Mediante la presente le manifiesto el compromiso del Gobierno de México de continuar con la mejora de la calidad de los servicios de educación, para impulsar la competitividad e inclusión del país, dentro de un marco de diversidad.

En este contexto y de acuerdo a la política de financiamiento con crédito externo establecida por la Secretaría de Hacienda y Crédito Público, se ha desarrollado, con el apoyo del Banco Mundial, una operación de Préstamo de Políticas de Desarrollo del Sistema de Educación Media Superior, que se desarrollará en reconocimiento de las acciones específicas en el proceso de reforma de la Educación Media Superior en México (EMS).

A continuación se describe el contexto de la EMS en México y, posteriormente, el proceso de reforma que apoyaría el préstamo solicitado.

### **Contexto de la Educación Medio Superior**

Por décadas el nivel Medio Superior se ha caracterizado por su desarticulación y dispersión, así como por la carencia de programas y políticas públicas que le dieran sentido e identidad. Entre sus indicadores, destaca que se contaba con más de 200 planes de estudios distintos y prácticamente inconexos; no existía movilidad ni tránsito entre dichos subsistemas. Es decir, si un estudiante comenzaba sus estudios en alguna modalidad, tenía que volver a iniciar el bachillerato si deseaba cambiarse a otra opción.

El nivel Medio Superior ha sido tradicionalmente el de mayor reprobación, repetición y deserción. De hecho, según información de la SEP y CONAPO, la mayor deserción en todo el sistema educativo se da en la EMS, con una reducción de 46 por ciento en la matrícula entre el 3ro de secundaria y el 3ro de EMS. La principal razón, de acuerdo con los propios jóvenes que deciden dejar el bachillerato, es que la escuela no les gusta, no les sirve, o no se adecúa a sus intereses y necesidades. La falta de recursos económicos es el segundo motivo de deserción. La mayor tasa de desempleo entre toda la población de México se observa precisamente entre los jóvenes de 18 años que egresan del Bachillerato y en promedio, un recién egresado tarda al menos 8 meses en encontrar su primer empleo.

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El nivel Medio Superior constituye también una gran oportunidad en varios ámbitos. El primero es la consolidación de la democracia y la formación de la ciudadanía, ya que al integrarse al bachillerato los estudiantes están en las primeras etapas de su adolescencia, pero al egresar, aproximadamente a los 18 años, ya son ciudadanos; es decir, cuentan para entonces con derechos y obligaciones. El segundo es la estabilidad y el progreso social, ya que los jóvenes en edad de cursar el bachillerato, y que cuentan con la oportunidad de estar en el sistema educativo, son menos propensos a la violencia, las adicciones, y a otros riesgos que quienes están fuera. El tercero tiene que ver con el desarrollo y la prosperidad. Es en el bachillerato donde los jóvenes comienzan a perfilar su trayectoria profesional, y en la medida que la educación sea pertinente y de calidad, se contará con los recursos humanos necesarios para mejorar los niveles de productividad y competitividad de México.

Ante esta realidad de grandes retos y oportunidades, en el año 2007 se inició un proceso de cambio estructural de la Educación Media Superior que ha sido posible gracias a la confluencia de cuatro grupos de actores: las autoridades educativas estatales del nivel Medio Superior, las autoridades educativas de las instituciones de Educación Superior, representadas a través de la Asociación Nacional de Universidades e Instituciones de Educación Superior (ANUIES), el Poder Legislativo, y las autoridades educativas federales del nivel Medio Superior. El factor de confluencia ha sido la conciencia compartida de la importancia estratégica del nivel Medio Superior, y de la urgencia de modernizarlo y ponerlo a la altura de las exigencias del mundo actual.

### **La Reforma Integral de la Educación Media Superior**

El proyecto de cambio para mejorar la calidad de la Educación Media Superior que han propuesto las autoridades educativas consiste en iniciar una Reforma Integral para la creación del Sistema Nacional de Bachillerato (SNB) en un marco de diversidad. Esta propuesta concilia la necesidad de dotar al nivel de una identidad, orden, articulación y pertinencia, con la de contar con diversidad de modalidades y subsistemas. La Reforma no propone un bachillerato único, ni un plan de estudios homogéneo, sino un marco de organización común que promueva la existencia de distintos tipos de bachillerato en donde la diversidad permite que cada institución se adecúe a las características de su entorno, a la realidad de su contexto, y a las necesidades e intereses de los jóvenes que atiende, garantizando así la calidad y la relevancia.

El respeto al federalismo y a la autonomía universitaria han sido dos premisas fundamentales en el diseño de esta política. En efecto, la participación activa de las autoridades educativas estatales y de las instituciones de Educación Superior a través de la ANUIES ha permitido tomar en cuenta e integrar la propuesta a partir de los avances que ya se habían manifestado en diversos estados de la República y universidades. Estos progresos conformaron una plataforma para diseñar una política pública nacional para el nivel Medio Superior aprovechando los aciertos y la capacidad de innovación con la que cuenta el país.

La reforma Integral de la Educación Media Superior consta de cuatro ejes innovadores de transformación:

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1. Orientación Académica: La reorientación del modelo enciclopedista centrado en la memorización, hacia uno centrado en el aprendizaje, en el que el conocimiento se transmite a través del desarrollo de competencias y habilidades.
2. Modalidades de Oferta Educativa: La definición formal de cinco diferentes modalidades para ofrecer servicios de Educación Media Superior.
3. Mecanismos de Instrumentación: La creación de los procesos operativos que se requieren para instrumentar la educación por competencias en el contexto de alguna de las cinco modalidades de oferta establecidas. Incluye la formación docente, la profesionalización de la gestión directiva, la inversión para contar con infraestructura y equipamiento adecuados, la adopción de procesos comunes de control y gestión escolar, el otorgamiento de apoyos a la demanda por medio de becas, la definición de reglas de movilidad entre subsistemas, la evaluación, y el uso de mecanismos de vinculación con el sector productivo.
4. Sistemas de Ingreso y Permanencia: Los procedimientos de verificación para que cada institución de bachillerato acredite la oferta de servicios educativos en congruencia con los tres ejes anteriores.

La confluencia de voluntades entre los actores participantes en el nivel Medio Superior ha hecho posible que en dos años de trabajo se hayan tomado una serie de definiciones para ejecutar las transformaciones marcadas en cada uno de estos cuatro ejes. De hecho, en acuerdo con las autoridades educativas y la ANUIES, el ciclo escolar 2008-2009 fue denominado el ciclo de "transición" hacia la Reforma. Algunas de las decisiones y acciones más importantes desarrolladas durante este período, y que permiten ahora entrar en una nueva fase de instrumentación son:

### Orientación Académica (Eje 1)

- La definición del Marco Curricular Común del nivel Medio Superior que otorga por primera vez una identidad a este tipo educativo, respetando la diversidad y dando lugar al surgimiento y consolidación de diferentes opciones de bachillerato. El Marco Curricular Común consiste en organizar el bachillerato alrededor de tres tipos de competencias: las Genéricas (comunes a todos los subsistemas), las Disciplinarias y las Profesionales. Las competencias Disciplinarias y Profesionales ofrecen un amplio espacio para la diversidad.
- La definición de un Perfil del Egresado, a partir de once Competencias Genéricas.
- Complementando la orientación académica, la Subsecretaría de Educación Media Superior (SEMS) ha iniciado la implementación del programa Construye-T, el cual busca desarrollar las competencias genéricas en los estudiantes y promueve la inclusión y la interculturalidad en la EMS.

### Modalidades de Oferta Educativa (Eje 2)

- La definición y reconocimiento de las modalidades presencial, intensiva, virtual, auto planeada y mixta, que conforman la oferta oficial de Educación Media Superior y que ofrecen la posibilidad de cursar éste nivel a poblaciones con distintos intereses, necesidades y contextos.

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### Mecanismos de Instrumentación (Eje 3)

- El establecimiento de ocho competencias que conforman el Perfil del Docente. Dicho perfil está alineado al Perfil del Egresado de manera que su desarrollo ofrece al docente las herramientas para propiciar las competencias Genéricas, Disciplinares y Profesionales en sus alumnos.
- La introducción de un programa de formación para desarrollar las ocho competencias que conforman el Perfil del Docente.
- El inicio de un programa de Titulación de Docentes para revertir el rezago histórico en esta materia.
- La definición del perfil de Director de Plantel para propiciar el desarrollo del Perfil del Egresado (con un Programa de Formación de Directores alineado a éste propósito).
- El desarrollo de un sistema de control escolar y reglas de tránsito compartidas, que permiten por primera vez la movilidad de los estudiantes entre subsistemas sin tener que reiniciar el bachillerato.
- La instrumentación del Programa de Inversión en Infraestructura y Ampliación de la Cobertura de la Educación Media Superior para incrementar y adecuar los espacios educativos.
- La dotación de apoyos económicos a jóvenes que no cuentan con la capacidad de financiar sus estudios.
- La aplicación de instrumentos de medición para verificar el grado de avances en la consecución del Perfil del Egresado y para evaluar la calidad y el logro educativo, la cuales se realizan a través de la Prueba Enlace de Media Superior y de la Prueba Excale, respectivamente.
- La instrumentación de diversos mecanismos para mejorar la pertinencia y la vinculación con el sector productivo.
- En los planteles operados por la Secretaría de Educación Pública a nivel Federal se han introducido algunas transformaciones complementarias de fondo incluyendo, entre otros, la selección de Directores de Plantel por concurso de oposición, la introducción de un Sistema de Gestión Escolar para el establecimiento de metas y prioridades por plantel en cada ciclo escolar, así como diversos mecanismos de evaluación, transparencia y rendición de cuentas hacia la sociedad.

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### El cambio estructural a partir del Ciclo Escolar 2009-2010

El ciclo escolar 2009-2010 corresponde al ciclo de puesta en marcha del Sistema Nacional de Bachillerato (SNB). Esto implica iniciar las acciones del cuarto eje que establece los procedimientos para que cada plantel educativo de manera voluntaria acredite la operación de su modelo de bachillerato en línea con los tres primeros ejes, y se registre así en el SNB. La invitación a participar es extensiva a todos los planteles públicos y privados que cuenten con reconocimiento de Validez Oficial de Estudios.

El procedimiento de ingreso en sí mismo presenta una oportunidad histórica para generar el cambio estructural de largo plazo en el nivel Medio Superior que propicie la mejora continua y ofrezca a la sociedad parámetros claros de seguimiento y evaluación de la educación. Consta de tres procesos instrumentados a partir del mes de agosto del año 2009, así como de un cuarto proceso a desarrollarse para entrar en operación durante el año 2010.

Los tres procesos que permiten poner en marcha el SNB son:

1. Creación del Consejo para la Evaluación de la Educación Media Superior (COPEEMS): Se constituye la Asociación Civil COPEEMS, con la participación de la Secretaría de Educación Pública Federal, las autoridades educativas Estatales, la ANUIES, el Instituto Nacional de Evaluación Educativa (INEE), y el Centro Nacional para la Evaluación de la Educación Superior (CENEVAL). El COPEEMS fungirá como el organismo coordinador de los procesos de "Evaluación para el ingreso al SNB" y de "Acreditación de la calidad en el SNB".
2. Registro y Acreditación de Organismos Evaluadores de la Educación Media Superior: Se convoca a la constitución de las instancias que realizarán el análisis de los planteles, para su ingreso al SNB.
3. Análisis y Evaluación en los planteles de Educación Media Superior: Se abre el proceso mediante el cual, cada Director de Plantel puede solicitar voluntariamente al COPEEMS la presencia de un Organismo Evaluador para verificar que la oferta educativa corresponde a lo establecido en los primeros tres ejes de la Reforma. Si el plantel opera bajo el primer eje, pero no cubre las características del segundo y tercer eje, se define como "Plantel Aspirante". Si opera sólo bajo el primer y tercer eje, se define como "Plantel Candidato", mientras que si opera bajo los tres ejes, se define como "Plantel Registrado".

Estos tres procesos se centran en la verificación de los insumos para ofrecer servicios educativos, y específicamente, contribuyen a identificar a las instituciones que cuentan con los elementos de los primeros tres ejes de la Reforma. El cuarto proceso a iniciarse en el año 2010, consta del establecimiento de los mecanismos para la acreditación de la calidad de las instituciones registradas en el SNB. Esto permitirá identificar claramente diferencias en la calidad en los servicios, medidas a través de logros en el aprendizaje de los alumnos. Este es un procedimiento estratégico en el mediano y largo plazo debido a que el mejoramiento en el logro educativo de los estudiantes es, a final de cuentas, el objetivo central de la iniciativa de transformación y modernización de la Educación Media Superior de México.

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Como se desprende de lo descrito, el Gobierno de México, a través de su Secretaría de Educación Pública, está realizando importantes acciones para que las mejoras que se han logrado en el campo macroeconómico se vean acompañadas de un claro avance en la educación media superior de todos los mexicanos, así como en la eficiencia del gasto social en educación.

La Secretaría de Educación Pública se compromete a continuar avanzando en estos ámbitos, para lo cual requiere seguir contando con el acompañamiento del Banco Mundial en las áreas señaladas de la Reforma. Estas acciones contribuirán a alcanzar las metas establecidas en el Plan Nacional de Desarrollo 2007-2012 y en el Programa Sectorial de Educación 2007-2012. En especial, la Secretaría de Educación Pública busca elevar la calificación en el examen PISA de 392 puntos en el 2006 a 435 puntos en el 2012, y aumentar la eficiencia terminal en la EMS de 58.3 por ciento (año 2006) a 65.7 por ciento (año 2012).

En virtud de lo manifestado, por medio de la presente el Gobierno de México, a través de su Secretaría de Educación Pública, solicita la aprobación del Préstamo de Apoyo a Políticas de Desarrollo del sistema de Educación Media Superior.

**Atentamente  
El Subsecretario**

**Lic. Miguel Ángel Martínez Espinosa**



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DE  
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Mr. Robert B. Zoellick  
President  
World Bank

Reference: Letter of Development Policy for the Program to Support Upper Secondary Education Reform in Mexico.

Dear Mr. Zoellick,

The purpose of this letter is to express the commitment of the Government of Mexico to improve the quality of education services to boost competitiveness and inclusiveness of the country within a framework of diversity.

In this context and, in accordance with the foreign credit financing policy of the Secretariat of Finance and Public Credit, a Development Policy Loan for the Upper Secondary Education System was developed, with World Bank support, in recognition of the specific actions undertaken in the process of reforming Upper Secondary Education in Mexico (EMS).

The following describes the context of EMS in Mexico and the reform process that the requested loan would support.

#### Upper Secondary Education Context

For decades, Upper Secondary Education has been characterized by a lack of unity and by fragmentation, as well as a lack of public policies and programs that give it meaning and identity. There were over 200 different curricula that were virtually unrelated, and there was a lack of mobility or transfer among these subsystems. In other words, if a student started in one subsystem, he or she had to start school over in order to move to another subsystem.

The upper secondary level has traditionally been characterized by the highest failure, repetition, and dropout rates. According to information from the Secretariat of Public Education (SEP) and CONAPO, the largest loss of enrollment in the entire education system happens in the EMS, with a 46 percent reduction in enrollment between the 3rd year of Lower Secondary Education and 3rd year of Upper Secondary Education. The main reasons, according to the youth who decide to leave school, are that they do not like school, that it does not seem beneficial, and that it is not suited to their interests and needs. The lack of funding is another reason for the high dropout rate. The unemployment rate in Mexico is highest among 18-year-olds who graduate from secondary school; on average, it takes a recent graduate at least 8 months to find employment.

Upper Secondary Education also presents a great opportunity in several areas. The first is in the consolidation of democracy and citizenship, given that upper secondary students enroll in their early teenage years, but when they graduate, at approximately 18 years old, they are legal citizens, with rights and obligations. The second is stability and social progress, as youth attending Upper Secondary School are less prone to violence, addictions, and other risks than those who are not in school. The third is related to development and prosperity. It is in Upper Secondary school that youth begin to shape their professional trajectory, and to the extent that education is relevant and of high quality, the country will have the necessary human resources to improve levels of productivity and competitiveness.

Given this situation of great challenges and opportunities, a process was started in 2007 to structurally change Upper Secondary Education, which was possible due to the confluence of four groups of actors: state educational authorities at the upper secondary level, educational authorities of higher education institutions – represented through the National Association of Universities and Institutions of Higher Education (ANUIES), the Legislative Power, and the federal educational authorities of the upper secondary level. The convergence factor has been the shared awareness of the strategic importance of upper secondary education, and the urgency to modernize and make it match the demands of today's world.

## The Comprehensive Reform of Upper Secondary Education

To improve the quality of upper secondary education, the authorities have proposed a comprehensive reform for the creation of the National Diploma System (SNB) in a context of diversity. This proposal reconciles the need to provide identity, order, articulation, and relevance to the Upper Secondary Education system with the need to have a diversity of options and subsystems. The reform does not propose a single upper secondary education system or a uniform curriculum. Instead, it provides a common organizational framework that promotes the existence of different types of subsystems and schools, which allows each educational institution to respond to its specific environment, its context, and the needs and interests of the youth it serves, thus guaranteeing quality and relevance.

Respect for federalism and university autonomy is the fundamental principle in the design of this policy. Indeed, the active participation of the state educational authorities and higher education institutions, through ANUIES, allowed the reform to take into account and integrate the progress that had already been seen in various states and universities. These developments formed a platform for the design of a national public policy for Upper Secondary Education, leveraging the strengths and the innovative capacity of the country.

The Comprehensive Reform of Upper Secondary Education consists of four main innovative axes of transformation:

1. Academic Focus: The reorientation from the model focused on memorization to the one focused on active learning, where knowledge is transmitted through the development of skills and abilities.
2. Methods of Educational Supply: The formal definition of five different approaches to providing Upper Secondary Education services.
3. Implementation Mechanisms: The creation of operational processes required to implement education for skills, in the context of any of the five established approaches. It includes teacher training, professionalization of management, the investment needed to ensure adequate infrastructure and equipment, the adoption of common control processes and school management, the provision of scholarships to meet demand, the definition of rules for students' mobility between subsystems, assessment and evaluation of learning, and the articulation mechanisms with the productive sector.
4. Procedures for Entry and Certification: The verification procedures for each Upper Secondary school to certify that the education it provides is consistent with the three previous axes.

The consensus among the actors participating in the Upper Secondary Education level has permitted, after two years of work, to reach a series of agreements to implement the changes in each of these four axes. Educational authorities and ANUIES agreed that the 2008-2009 school year would be named the cycle of "transition" towards the reform. Some of the most important decisions and actions developed during this period and that now allow for entering a new phase of implementation are:

### Academic Focus (Axis 1)

- The definition of a Common Curriculum Framework for Upper Secondary Education that creates, for the first time, a shared identity for this educational level, while preserving diversity and allowing for the emergence and consolidation of different upper secondary school options. This Common Curriculum Framework will organize the Upper Secondary School curriculum around three categories of skills: generic, subject-specific and professional skills. Generic skills are common to all subsystems, while subject-specific and professional skills leave ample room for diversity.
- The definition of an Upper Secondary Graduate Profile around eleven generic skills.
- To complement the Academic Focus axis, the Sub secretariat for Upper Secondary Education (SEMS) began the implementation of CONSTRUYE-T, a program that seeks to develop students' generic skills and promotes inclusion and multiculturalism within the Upper Secondary Education System.

### Methods of Educational Supply (Axis 2)

- The formal definition and recognition of the following approaches for the provision of Upper Secondary Education services: traditional face to face learning, intensive learning, distance learning, self-guided learning, and blended learning. These approaches would open study possibilities to populations with diverse interests and needs and from different contexts.

#### Implementation Mechanisms (Axis 3)

- The definition of a set of eight competencies that compose the Teacher Profile. This profile is aligned to the Upper Secondary Graduate Profile, so that its development provides teachers with the tools to foster the development of generic, subject-specific and professional skills of their students.
- The introduction of a training program to develop the eight competencies of the Teacher Profile.
- The implementation of a Teacher's professionalization program to reverse the historical lag in this area.
- The definition of a School Principal's Profile that promotes the development of the Upper Secondary Graduate Profile (including a School Principal's training program tailored to this purpose).
- The development of shared system of academic control and transfer rules, which for the first time will allow student mobility across subsystems without the need to restart Upper Secondary Education.
- The implementation of the Infrastructure Investment and Expansion of Upper Secondary Education Coverage Program to increase the number of educational posts and their adequacy.
- The provision of economic support to young people who lack the means to finance their studies.
- The use of measurement instruments to monitor progress towards achieving the Upper Secondary Graduate Profile and to assess the quality of education services, as well as learning, through the *ENLACE* test for upper secondary education and the *EXCALE* test, respectively.
- The implementation of a variety of mechanisms to improve the articulation between the Upper Secondary School System and the productive sector.
- A series of important complementary changes at the federal level have been introduced in schools operated by SEP. These include: the competitive selection of School Directors; the implementation of a Management Information System to set and monitor goals and priorities for each academic year for individual schools; and the implementation of other evaluation, transparency and accountability mechanisms at the school level.

#### Structural change beginning in the 2009-2010 School Year

The 2009-2010 school year launches the implementation of the National Diploma System (SNB). This implies initiating actions related to the fourth axis, which establishes the procedures for each school to voluntarily certify the operation of their upper secondary school model according to the first three axes, and register in the SNB. The invitation to participate is extended to all public and private schools that hold the Official Recognition of Studies certificate (*Reconocimiento de Validez Oficial de Estudios*).

The procedure for registration into the SNB presents a historic opportunity to generate long-term structural change that fosters continuous improvement in the Upper Secondary Education System and provides society with clear benchmarks for monitoring and evaluation. This procedure consists of three processes that have been in place since August 2009, and a fourth process that will be developed and become operational during 2010.

The three processes which will allow the implementation of the SNB are:

1. Creation of the National Council for the Evaluation of Upper Secondary Education (COPEEMS): COPEEMS is a Civil Association with the participation of the SEP, the States' educational authorities, ANUIES, the National Institute for Educational Assessment and Evaluation (INEE), and the National Center for the Evaluation of Higher Education (CENEVAL). COPEEMS serves as the coordinating agency for the processes of "Evaluation for Admission of schools to the SNB" and " Certification of Quality of schools in the SNB".
2. Registration and Certification of the Upper Secondary Education Evaluation Bodies: Through this process, the entities in charge of conducting school-level evaluation were constituted.
3. Analysis and Evaluation of Upper Secondary Schools: The process by which each school's Principal can request COPEEMS to send an Evaluation Body to certify alignment of the school's educational supply to Axes 1-3 of the reform opened in 2009. A school that complies with Axis 1, but not with Axes 2 and 3, is deemed as "Aspirant;" a school that complies with Axes 1 and 3, but not with Axis 2, is deemed as "Candidate;" and a school that complies with all three Axes becomes "Registered."

These three processes are organized around the validation of inputs for the provision of educational services and, specifically, they contribute to the identification of institutions that comply with the first three axes of the Reform. The fourth process, which will begin in 2010, will establish the quality certification mechanisms for schools registered in the SNB. This will allow a clear identification of differences in quality of services, measured by improvements in students' learning attainment. This is a medium- and long-term strategic process as the improvement in students' learning is the main objective of the initiative to transform and modernize the Upper Secondary Education system in Mexico.

As has been described above, the Government of Mexico, through its Secretariat of Public Education, is implementing significant actions to ensure that the improvements that have been achieved in the macroeconomic field are complemented with clear advances in upper secondary education for all Mexicans, and to improve the efficiency of social spending on education.

The Secretariat of Public Education is committed to continued progress in these areas, which requires the continuous support of the World Bank in the identified areas of the Reform. These actions would contribute to achieving the goals established in the National Development Plan (*Plan Nacional de Desarrollo*) 2007-2012 and in the Education Sector Program (*Programa Sectorial de Educación*) 2007-2012. In particular, the Secretariat of Public Education aims to improve the PISA test score from 392 points in 2006 to 435 points in 2012, and to increase terminal efficiency in upper secondary education from 58.3 percent (2006) to 65.7 percent (2012).

By this request, the Government of Mexico, through its Secretariat of Public Education, seeks the approval of the Upper Secondary Education Development Policy Loan.

Sincerely,  
The Sub Secretary for Upper Secondary Education

Miguel Angel Martinez Espinosa

(signature and seal in the original)

## ANNEX 2. OPERATION POLICY MATRIX

Key Issues and Reform Actions undertaken prior to 2009 <sup>(1)</sup>	DPL 1 (April 2010) <sup>(2)</sup>	DPL 2 (December 2011) <sup>(2)</sup>	DPL 3 (December 2012) <sup>(2)</sup>
<b>1. Improving Flexibility of Upper Secondary Education</b>			
<p><b>Key Issue:</b> Lack of common standard and mutual recognition across sub-systems prevents students from moving from one sub-system to another, makes it hard for the system to adjust to changing market conditions and encourages students to drop out of school.</p> <p>SEP has created the institutional basis for the <i>Sistema Nacional de Bachillerato</i> (SNB) through the publication of 9 Federal resolutions (<i>Acuerdos Secretariales</i>) in the <i>Diario Oficial</i>. (Approved from Sept. 26<sup>th</sup> 2008 to June 23<sup>rd</sup>, 2009).</p> <p>SEP has established the set of minimum generic competences that students need to achieve by the end of upper secondary education in the National Upper Secondary Education System. (Established on Oct. 21<sup>st</sup>, 2008)</p>	<p><b>SEP has established a National Upper Secondary Education System and established the institutional basis of said system.</b></p> <p><i>Mean of Verification: Copies of signed agreements with the States.</i></p> <p><b>SEP has established the set of minimum competences by subject that students need to achieve by the end of upper secondary education in the National Upper Secondary Education System.</b></p> <p><i>Mean of Verification: Agreement 486, issued by SEP, and published in the Official Gazette on April 30, 2009.</i></p> <p>Stakeholders have formed a committee to create national competence standards for technical programs in EMS.</p>	<p><b>Competence based curriculum is implemented in at least 50 percent of all federal schools.</b></p> <p><i>Mean of Verification: Review of the implementation of the reform by SEMS.</i></p> <p><b>The Government has completed the definition of generic, disciplinary and professional competences to be achieved by the end of upper secondary education.</b></p> <p><i>Mean of Verification: Resolution by SEP which establishes professional competences.</i></p>	<p><b>Competence based curriculum is implemented in most state and autonomous schools participating in the National Upper Secondary Education System.</b></p> <p><i>Mean of Verification: Review of the implementation of the reform by SEMS.</i></p>

2. Enhancing Quality and Relevance of Upper Secondary Education			
<p><b>Key Issue:</b> The quality of Mexico's upper-secondary education is low, and many students feel they do not obtain relevant skills for the labor market. Schools have not been held accountable for learning outcomes, because of lack of school-level indicators; and there is no incentive for success under current governance arrangements.</p> <p>Mexico has carried out and disseminated a census assessment of 12<sup>th</sup> grade learning to evaluate knowledge in mathematics and language. (Carried out in 2008 and 2009)</p>	<p>SEP has established a national evaluation system for the National Upper Secondary Education System.</p>	<p>Mexico has carried out and disseminated a 12<sup>th</sup> grade learning assessment nationwide based on basic competencies that includes mathematics, language, and at least one other area (natural science or social science).</p> <p><i>Mean of Verification: Official records of ENLACE.</i></p> <p>SEMS has initiated a study on the factors associated with results in ENLACE and the value-added of the EMS reform.</p> <p>First sample-based education examination (EXCALE) in Upper Secondary Education is completed. The sample is statistically representative at the national level and for major EMS sub-systems. Results of EXCALE disseminated to public and analysis and diagnostic of EMS prepared.</p>	<p>A full assessment of basic competencies (mathematics, language, natural science, and social science) has been carried out. Results disseminated to the public.</p> <p><i>Mean of Verification: Official records of ENLACE.</i></p> <p>Mexico has initiated a second sample-based assessment (EXCALE) in EMS with national and educational levels representativity.</p>

(1) Key issues in bold character.

(2) Prior actions for DPL 1 and triggers for DPL 2 and 3 in bold character.

Key Issues and Reform Actions undertaken prior to 2009 <sup>(1)</sup>	DPL 1 (April 2010) <sup>(2)</sup>	DPL 2 (December 2011) <sup>(2)</sup>	DPL 3 (December 2012) <sup>(2)</sup>
<p>A teacher training program developed by SEP in association with UPN and ANUIES has been designed and initiated teacher training programs developed and carried out by UPN and by ANUIES. (Finalized on May 6<sup>th</sup>, 2008).</p>	<p><b><i>Mean of Verification:</i></b> <i>Coordination guidelines agreed between the Borrower's Under-Ministry for upper secondary education and INEE dated July 24, 2009.</i></p> <p><b>SEP, in collaboration with UPN and ANUIES, has developed an Upper Secondary Education Teacher Training Program – PROFORDEMS – which is benefiting teachers from all States.</b></p> <p><b><i>Means of Verification:</i></b> <i>Execution agreement celebrated between SEP, ANUIES and CONALEP dated January 27, 2009 and a letter dated March 19, 2010 from SEP's Coordinator of Academic Development (in SEP's Under-Ministry for Upper Secondary Education) detailing the amount of teachers that have been certified in each State.</i></p> <p><b>SEP has decided to establish a civil association (COPEEMS) to evaluate the entry of schools in the National Upper Secondary Education System and has issued the guidelines for the by-laws of said civil association.</b></p> <p><b><i>Means of Verification:</i></b> <i>Agreement No. 3 from the Comité Directivo del SNB dated August 26, 2009.</i></p>	<p><b><i>Mean of Verification:</i></b> <i>Official records from INEE and SEP.</i></p> <p>PROFORDEMS continues teacher training activities.</p> <p>SEMS has designed and started implementing a comprehensive evaluation of PROFORDEMS, including its impact on key outcomes.</p> <p>COPEEMS has begun evaluation and analysis of schools for entry into the SNB.</p> <p><b><i>Mean of Verification:</i></b> <i>School applications and COPEEMS minutes.</i></p>	<p><b><i>Mean of Verification:</i></b> <i>Official records from INEE and SEP.</i></p> <p>PROFORDEMS completes teacher training activities.</p> <p>COPEEMS has defined the criteria for school accreditation.</p> <p><b><i>Mean of Verification:</i></b> <i>Official records of COPEEMS.</i></p>

<p>SEMS has introduced a framework for the competitive selection of school directors and it has begun the process of competitive selection in federal schools. (First implemented in Dec. 4<sup>th</sup>, 2007)</p>		<p><b>70 percent of all federal school directors have been selected using the competitive selection process.</b></p> <p><i><u>Mean of Verification:</u> Official memos from Secretaries of education of states who have adhered to this requirement.</i></p>	<p><b>100 percent of all federal school directors have been selected using the competitive selection process.</b></p> <p><i><u>Mean of Verification:</u> Official memos from Secretaries of education of states who have adhered to this requirement.</i></p>
<p><b>3. Reducing Opportunity Cost of Upper Secondary Education</b></p>			
<p><b><u>Key Issue:</u> High real and perceived opportunity cost of upper secondary education is preventing students from poorer strata of society from completing education and thus improving their labor market prospects for the future.</b></p>	<p><b>SEP has consolidated its scholarship program targeting poor students who are not covered by the <i>Oportunidades</i> Program or by any other scholarship program.</b></p> <p><i><u>Means of Verification:</u> SEP Agreement 479 published in the Official Gazette on December 31, 2008.</i></p> <p>SEMS has initiated a comprehensive evaluation study of the scholarship program.</p>	<p>Results of evaluation of scholarship program are released and disseminated to general public and discussed within the sector.</p>	<p><b>Results of the Impact Evaluation of the ongoing scholarship program, if relevant, incorporated into to the scholarship program.</b></p> <p><i><u>Mean of Verification:</u> Official records of SEP.</i></p>

(1) Key issues in bold character.

(2) Prior actions for DPL 1 and triggers for DPL 2 and 3 in bold character.

### ANNEX 3. EXPECTED RESULTS OF THE MEXICO MUSE DPL SERIES

Outputs at end of DPL 1 (December 2010)	Outputs at end of DPL 2 (December 2011)	Outputs at end of DPL 3 (December 2012)	Program Outcome at the End of Program
<b>1. Improving Flexibility of Upper Secondary Education</b>			
<p>Competence based curriculum implemented in at least 50 percent of all federal schools.</p> <p><u>Means of verification:</u> Official registries at SEP.</p>	<p>Competence based curriculum implemented in all federal schools.</p> <p><u>Means of verification:</u> Official registries at SEP.</p>	<p>Competence based curriculum implemented in all state and autonomous schools participating in the SNB.</p> <p><u>Means of verification:</u> Official registries at SEP.</p>	<p>- Improved flexibility in upper secondary education. Measured by:</p> <p><i>Percent of the upper secondary schools that, having adopted the Marco Común Curricular, accept student transfers and validate equivalencies.</i></p> <p><u>Baseline:</u> <i>Less than 10 percent</i></p> <p><u>End of program:</u> <i>40 percent</i></p> <p><u>Source:</u> SEP</p>
<b>2. Enhancing Quality and Relevance of Upper Secondary Education</b>			
<p>A school evaluation system for entry in the SNB is operating.</p> <p><u>Mean of verification:</u> Official records of COPEEMS.</p> <p>Mexico has implemented its first sample-based assessment (EXCALE) for 12<sup>th</sup> grade.</p> <p><u>Mean of Verification:</u> Official records INEE.</p> <p>120,000 teachers have completed their training in PROFORDEMS.</p> <p><u>Mean of verification:</u> Official registries at PROFORDEMS.</p> <p>Based on the new assessment instruments and existing administrative data, INEE publishes for the first time the <i>Indicadores del Sistema de Educación Media Superior</i>.</p> <p><u>Mean of Verification:</u> Administrative records.</p>	<p>A system is operating for assessing schools at entry into SNB. The basis for an accreditation system for schools has been agreed.</p> <p><u>Mean of verification:</u> Official records of COPEEMS.</p> <p>180,000 teachers have completed their training in PROFORDEMS.</p> <p>INEE publishes results from its first comprehensive study on EMS with a focus on teachers and directors.</p> <p><u>Mean of Verification:</u> Administrative records</p>	<p>A system for assessing schools at entry and for accreditation of schools is in full operation.</p> <p><u>Mean of verification:</u> Official records of COPEEMS.</p> <p>Mexico has implemented its second sample-based assessment (EXCALE) for 12<sup>th</sup> grade.</p> <p><u>Mean of verification:</u> Official records.</p> <p>240,000 teachers have completed their training in PROFORDEMS.</p> <p><u>Mean of verification:</u> Official registries at PROFORDEMS.</p>	<p>- Improvements in quality and relevance of the upper secondary education curriculum. Measured by:</p> <p><i>Unemployment rate ratio of upper secondary graduates ages 18-21 over the unemployment rate of those upper secondary graduates with ages 25-30.</i></p> <p><u>Baseline:</u> <i>1.8 in 2009</i></p> <p><u>End of program:</u> <i>1.6</i></p> <p><u>Source:</u> ENOE</p> <p><i>Reductions in dropout rates in upper secondary education.</i></p> <p><u>Baseline:</u> <i>41.7 percent in 2008</i></p> <p><u>End of program:</u> <i>34.3 percent</i></p> <p><u>Source:</u> SEP</p> <p><i>Transition from lower to upper Secondary School</i></p> <p><u>Baseline:</u> <i>91 percent</i></p> <p><u>End of program:</u> <i>95 percent</i></p>

			<p><u>Source: ENIGH</u></p> <p>- Improved student learning. Measured by:</p> <p><i>The percentage of students scoring in the categories good or excellent in the ENLACE assessment.</i></p> <p><u>Baseline:</u> 15 percent in 2008</p> <p><u>End of program:</u> 18 percent</p> <p><u>Source: ENLACE</u></p> <p>- Improved teaching quality in upper secondary education due to massive in service training and certification of teacher competences, as measured by:</p> <p><i>The baseline and final results of the planned Impact Evaluation.</i></p>
<b>3. Reducing Opportunity Cost of Upper Secondary Education</b>			
<p>The number of scholarships has increased from 280,000 to 320,000 in upper secondary education for the 2009-2010 school year.</p> <p><u>Means of Verification:</u> <i>Administrative records.</i></p> <p>SEMS has initiated a comprehensive evaluation study of the scholarship program.</p> <p><u>Means of Verification:</u> <i>Terms of reference and progress reports.</i></p>	<p>The number of scholarships has increased from 320,000 to 340,000 in upper secondary education for the 2010-2011 school year.</p> <p><u>Means of Verification:</u> <i>Administrative records.</i></p> <p>Intermediate results from the comprehensive evaluation study of the scholarship program are released and disseminated to general public and discussed within the sector.</p> <p><u>Mean of Verification:</u> <i>Published study.</i></p>	<p>The number of scholarships has increased from 340,000 to 360,000 in upper secondary education for the 2011-2012 school year.</p> <p><u>Mean of verification:</u> <i>Official registries at PROBEMS and ENIGH.</i></p> <p>Rigorous impact evaluation of the Scholarship program completed and recommendations from the study incorporated in the Scholarship design.</p> <p><u>Mean of verification:</u> <i>Official records.</i></p>	<p>- Increased coverage at the upper secondary level among the poor. Measured by:</p> <p><i>Increased completion rates in upper secondary education.</i></p> <p><u>Baseline:</u> 47 percent in 2008 for lowest quintile.</p> <p><u>End of program:</u> 49 percent for lowest quintile.</p> <p><u>Source:ENIGH</u></p> <p><i>Transition from lower to upper Secondary School</i></p> <p><u>Baseline:</u> 57 percent in 2008 for lowest quintile.</p> <p><u>End of program:</u> 64 percent for lowest quintile.</p> <p><u>Source:ENIGH</u></p>

## ANNEX 4. FUND RELATIONS NOTE

### IMF Executive Board Concludes 2010 Article IV Consultation with Mexico

Public Information Notice (PIN) No. 10/39

March 16, 2010

*Public Information Notices (PINs)* form part of the IMF's efforts to promote transparency of the IMF's views and analysis of economic developments and policies. With the consent of the country (or countries) concerned, PINs are issued after Executive Board discussions of Article IV consultations with member countries, of its surveillance of developments at the regional level, of post-program monitoring, and of ex post assessments of member countries with longer-term program engagements. PINs are also issued after Executive Board discussions of general policy matters, unless otherwise decided by the Executive Board in a particular case. The [staff report](#) (use the free [Adobe Acrobat Reader](#) to view this pdf file) for the 2010 Article IV Consultation with Mexico is also available.

On March 10, 2010, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation with Mexico.<sup>1</sup>

### Background

Mexico had significantly strengthened policy credibility and public and private sector balance sheets before the onset of the crisis. Strong economic performance, with growth averaging over 3.5 percent in 2003-07, was underpinned by robust macro policy frameworks along with the flexible exchange rate regime. Considerable progress was made in improving debt profiles, and the strong regulatory framework gave rise to a sound banking sector.

Nevertheless, Mexico's resilience was severely tested during the global crisis. The surge in risk aversion following the collapse of Lehman Brothers in September 2008 triggered a sharp retrenchment of financial flows from emerging markets, including Mexico, resulting in liquidity strains and marked currency depreciation. Meanwhile, reflecting close U.S. linkages, Mexico experienced a rapid decline in manufacturing exports in the first half of 2009. Unanticipated large losses on corporate foreign exchange derivative positions disclosed in late 2008 further weighed on confidence, while the H1N1 virus outbreak in mid-2009 put an additional drag on activity. Against this background, output contracted by 6½ percent in 2009, while the peso fell 25 percent against the dollar in the nine months to mid-2009.

Prompt and effective policy measures were adopted in response to the crisis. Macroeconomic policies were eased significantly, providing a fiscal impulse of 2.5 percent of GDP in 2009 and reducing policy rates by a total of 375 bps, to 4.5 percent, since mid-2008. Targeted assistance was also extended to financial intermediaries to address funding shortages. At the same time, Mexico's Central Bank (Banxico) made substantial interventions (US\$31.4 billion in total) to maintain orderly liquidity conditions in the foreign exchange market, and secured contingent financing through the Federal Reserve swap line (\$30bn, expired in February 2010) and the Fund Flexible Credit Line (\$47bn, effective till mid-April 2010) to further support confidence. On the back of these strong policy measures, growth has resumed since mid-2009, the peso exchange rate has rebounded, while domestic financial stability has been maintained.

Building on the recent momentum, activity is expected to accelerate in the near term, leading to projected growth of 4 percent for 2010. Inflation was pushed up to 4½ percent in January 2010 by one-off increases in taxes and administered prices, but is expected to return to the 3 percent target by end-2011 reflecting the considerable economic slack. With domestic demand gradually strengthening, the current account deficit is projected to widen slightly to 1½ percent of GDP in 2010.

The authorities have also undertaken a series of measures to further bolster fundamentals and rebuild buffers. The FY2010 budget included a substantive tax reform, designed to offset the revenue losses from lower oil production, while allowing for a temporary easing of the balanced budget rule in response to the cyclical downturn. Requirements on corporate disclosure of derivative exposures has been tightened, while structural reforms to enhance growth potential—most recently reforms of the electricity sector—are being advanced. In addition, the authorities have announced plans to increase foreign exchange reserves gradually through a combination of retaining public sector foreign exchange cash flows and the use of an options-based mechanism.

### **Executive Board Assessment**

Executive Directors commended the authorities for their sound policy frameworks and progress in strengthening public and private sector balance sheets, which had enabled an effective counter-cyclical policy response and helped preserve stability during the crisis. Their swift action to secure contingency credit lines—from the U.S. Federal Reserve and the Fund—has also helped maintain external confidence. The economy is starting to recover, following the deep output contraction in the first half of 2009. However, the uncertain global outlook could pose downside risks, underscoring the need to increase room for policy maneuver and strengthen efforts to address medium-term fiscal and growth challenges.

Directors considered that the 2010 budget is appropriate. The tax package represents an important step toward achieving medium-term fiscal sustainability, while the temporary easing of the balanced budget, in accordance with the exceptional clause of the fiscal rule, and would help cushion the impact of the withdrawal of fiscal support. Directors welcomed the progress in fiscal reforms over the past three years. Given the expected structural declines in oil revenues and rising current spending pressures, they welcomed plans to seek expenditure savings and further strengthen tax administration. Further efforts would be needed to advance on oil sector reforms, broaden the tax base, and simplify the tax system. Moving to a structural budget rule would help reduce procyclicality and spending volatility, further strengthening policy credibility. Directors saw the removal of the caps on savings in the oil stabilization funds as a step in the right direction.

In light of the still weak demand conditions, Directors agreed that monetary policy should remain supportive until the recovery is firmly established. The central bank's effective communication has helped limit the effects on inflation of the recent changes in taxes and administered prices. Nevertheless, second-round effects would need to be carefully monitored.

Directors agreed that the flexible exchange rate has played an important role in the adjustment process, and welcomed the transparent, rules-based intervention mechanisms. Noting persistent market concerns about Mexico's low reserve coverage relative to balance sheet indicators, many Directors saw merit in the authorities' plan to explore options for further strengthening foreign exchange buffers. A number of other Directors pointed to the need to take due account of the costs and externalities of reserve accumulation.

Directors noted that the financial system remains resilient, underpinned by strong regulation and supervision. They welcomed the authorities' prompt action to address emerging issues in some small nonbank institutions, and encouraged continued close monitoring of developments in this sector. Directors supported the intentions to broaden the regulatory perimeter, set up a committee for assessing systemic risks, and reform the financial sector resolution framework.

Directors emphasized that the challenge of reinvigorating growth has gained new urgency in a weak global environment. They encouraged the authorities to expedite structural reforms to boost growth, building on recent important steps to improve productivity in the electricity sector. Key priorities include advancing on strengthening the competition framework, streamlining the regulatory framework, and enhancing labor market flexibility.

## Mexico: Selected Economic and Financial Indicators 1/

	2004	2005	2006	2007	2008	2009
(Annual percentage changes, unless otherwise indicated)						
<b>National accounts and prices</b>						
Real GDP	4.0	3.2	4.9	3.3	1.5	-6.5
Real GDP per capita 2/	2.7	3.4	4.2	2.4	0.5	-7.3
Gross domestic investment (in percent of GDP)	24.8	24.4	26.1	25.8	26.4	22.1
Gross national savings (in percent of GDP)	24.1	23.8	25.7	25.0	24.9	21.4
Consumer price index (end period)	5.2	3.3	4.1	3.8	6.5	3.6
<b>External sector</b>						
Exports, f.o.b. 3/	14.1	14.0	16.7	8.8	7.2	-21.2
Imports, f.o.b. 4/	15.4	12.7	15.4	10.1	9.5	-24.0
External current account balance (in percent of GDP)	-0.7	-0.5	-0.5	-0.8	-1.5	-0.6
Change in net international reserves (end of period, billions of U.S. dollars)	-4.1	-7.2	1.0	-10.3	-7.5	-5.4
Outstanding external debt (in percent of GDP)	21.9	20.4	17.8	18.8	18.5	23.8
Total debt service ratio 5/ (in percent of exports of goods, services, and transfers)	30.8	25.9	30.3	23.0	23.0	28.3
<b>Nonfinancial public sector (in percent of GDP)</b>						
Augmented overall balance	-1.6	-1.4	-1.0	-1.4	-1.5	-4.7
Traditional overall balance	-0.2	-0.1	0.1	0.0	-0.1	-2.3
Gross augmented public sector debt	41.4	39.8	38.3	38.2	43.3	44.6
Net augmented public sector debt	36.8	35.2	32.4	31.4	35.8	38.8
<b>Money and credit</b>						
Monetary base	12.0	11.7	18.4	10.0	16.7	9.4
Broad money (M4a)	12.6	15.0	12.8	11.5	17.2	5.9
Treasury bill rate (28-day cetes, in percent, annual average)	6.8	9.2	7.2	7.2	7.5	5.4

Sources: National Institute of Statistics and Geography; Bank of Mexico; and Ministry of Finance and Public Credit; and IMF staff estimates.

1/ Methodological differences mean that the figures in this table may differ from those published by the authorities.

2/ Fund staff estimates.

3/ Exports net of maquila sector imports.

4/ Excludes maquila sector imports.

5/ Public and private sectors.

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<sup>1</sup> Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. A staff team visits the country, collects economic and financial information, and discusses with officials the country's economic developments and policies. On return to headquarters, the staff prepares a report, which forms the basis for discussion by the Executive Board. At the conclusion of the discussion, the Managing Director, as Chairman of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities. An explanation of any qualifiers used in summings up can be found here: <http://www.imf.org/external/np/sec/misc/qualifiers.htm>

## **IMF EXTERNAL RELATIONS DEPARTMENT**

### **Public Affairs**

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## **IMF Executive Board Renews US\$48 Billion Flexible Credit Line Arrangement with Mexico**

Press Release No. 10/114  
March 25, 2010

The Executive Board of the International Monetary Fund (IMF) today approved a successor one-year arrangement for Mexico under the Flexible Credit Line (FCL) in an amount equivalent to SDR 31.528 billion (about US\$48 billion). The Mexican authorities stated they intend to treat the arrangement as precautionary and do not intend to draw on the line.

The FCL was established on March 24, 2009 as part of a major reform of the Fund's lending framework (see [Press Release No. 09/85](#)). The FCL is designed for crisis prevention purposes as it provides the flexibility to draw on the credit line at any time. Disbursements are not phased nor conditioned on compliance with policy targets as in traditional IMF-supported programs. This flexible access is justified by the very strong track records of countries that qualify for the FCL, which gives confidence that their economic policies will remain strong.

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

"Mexico has a sustained record of sound economic policies, and has very strong economic fundamentals and frameworks. Public and private debt levels were reduced and balance sheets strengthened in the years before the global crisis. Well implemented rules-based policy mechanisms, including the balanced budget fiscal rule and inflation targeting framework and flexible exchange rate regime, have anchored stability.

This strong policy framework has helped preserve stability during the crisis, and—for the first time in many decades—allowed the authorities to deliver a sizable countercyclical fiscal and monetary policy response. Adroit steps have been taken in various financial market segments to maintain orderly conditions. The authorities have continued to demonstrate their commitment and ability to reform in challenging times, including through the passage of important revenue measures in the 2010 budget that will strengthen the medium-term fiscal outlook. Swift action to secure contingent credit lines during the crisis—from the U.S. Federal Reserve and the International Monetary Fund—also helped maintain external confidence.

On the back of these strong policy measures and improving global economic conditions, growth has resumed since mid-2009, asset prices have recovered from troughs seen at the height of the crisis, and domestic financial stability

has been maintained. Looking forward, policies will continue to be underpinned by the rules-based macroeconomic framework, and the authorities intend to continue to react as needed to any future shocks that may arise.

Nonetheless, sizeable downside risks still confront the global economy. It is against this background that, at the authorities' request, the Executive Board today approved a one-year arrangement under the IMF's FCL, which the authorities intend to treat as precautionary. This successor FCL arrangement will continue to play an important role in supporting the authorities' overall macroeconomic strategy and in bolstering confidence until external conditions improve, complementing financing from other multilaterals.

Mexico's very strong policy frameworks and economic fundamentals, together with the additional insurance provided by the successor arrangement under the FCL, put Mexico in a very strong position to deal with other potential risks that could arise in the period ahead as the global economy continues to gradually recover from the crisis."

To read the staff report and other documents related to the approval of Mexico's Flexible Credit Line, please see:

<http://www.imf.org/external/pubs/ft/scr/2010/cr1081.pdf>

#### **IMF EXTERNAL RELATIONS DEPARTMENT**

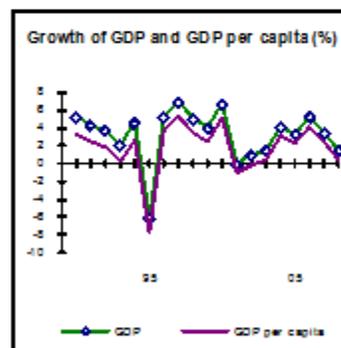
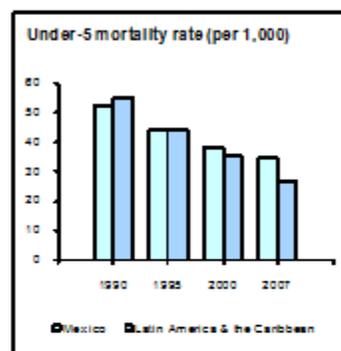
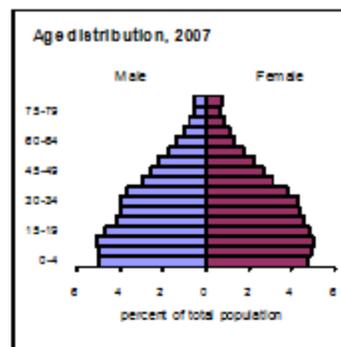
<b>Public Affairs</b>		<b>Media Relations</b>	
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## ANNEX 5. MEXICO AT A GLANCE

### Mexico at a glance

1/25/10

Key Development Indicators	Mexico	Latin	Upper	
		America & Caribb.	middle Income	
<b>(2008)</b>				
Population, mid-year (millions)	106.4	561	824	
Surface area (thousand sq. km)	1964	20,421	4,1497	
Population growth (%)	10	12	0.7	
Urban population (% of total population)	77	78	75	
GNI (Atlas method, US\$ billions)	1062.1	3,252	5,854	
GNI per capita (Atlas method, US\$)	9,990	5,801	7,107	
GNI per capita (PPP, International \$)	13,910	9,678	12,072	
GDP growth (%)	13	5.7	5.8	
GDP per capita growth (%)	0.3	4.4	5.0	
<i>(most recent estimate, 2003–2008)</i>				
Poverty headcount ratio at \$125 a day (PPP, %)	-2	8	-	
Poverty headcount ratio at \$200 a day (PPP, %)	5	17	-	
Life expectancy at birth (years)	75	73	71	
Infant mortality (per 1000 live births)	29	22	21	
Child malnutrition (% of children under5)	3	4	-	
Adult literacy, male (% of ages 15 and older)	94	92	95	
Adult literacy, female (% of ages 15 and older)	91	90	93	
Gross primary enrollment, male (% of age group)	114	120	112	
Gross primary enrollment, female (% of age group)	111	116	109	
Access to an improved water source (% of population)	95	91	95	
Access to improved sanitation facilities (% of population)	81	78	83	
<b>Net Aid Flows</b>				
	1980	1990	2000	2008
<i>(US\$ millions)</i>				
Net ODA and official aid	55	156	-56	121
<i>Top 3 donors (in 2007):</i>				
United States	9	23	24	84
Germany	5	9	15	28
France	5	51	-11	16
Aid (% of GNI)	0.0	0.1	0.0	0.0
Aid per capita (US\$)	1	2	-1	1
<b>Long-Term Economic Trends</b>				
Consumer prices (annual % change)	26.3	26.7	9.5	5.1
GDP implicit deflator (annual % change)	33.4	28.1	12.1	6.6
Exchange rate (annual average, local per US\$)	0.0	2.8	9.5	111
Terms of trade index (2000 = 100)	194	106	100	116
<b>Population, GDP and Growth Rates</b>				
Population, mid-year (millions)	67.6	83.2	98.0	106.4
GDP (US\$ millions)	194,851	262,710	581,428	1,088,128
<i>(% of GDP)</i>				
Agriculture	9.0	7.8	4.2	3.8
Industry	33.6	28.4	28.0	37.1
Manufacturing	22.3	20.8	20.3	18.8
Services	57.4	63.7	67.8	59.1
Household final consumption expenditure	65.1	69.6	67.0	65.5
General govt final consumption expenditure	10.0	8.4	11.1	10.3
Gross capital formation	27.2	23.1	23.9	26.4
Exports of goods and services	10.7	18.6	30.9	28.3
Imports of goods and services	13.0	19.7	32.9	30.5
Gross savings	22.0	20.3	20.5	24.9
<b>Average Annual Growth Rates (1980–90, 1990–2000, 2000–08)</b>				
	1980–90	1990–2000	2000–08	
Population	2.1	1.6	1.0	
GDP	1.1	3.1	2.7	
Agriculture	0.8	1.5	2.1	
Industry	1.1	3.8	1.9	
Manufacturing	1.5	4.3	1.8	
Services	1.4	2.9	3.1	
Household final consumption expenditure	1.4	2.3	3.8	
General govt final consumption expenditure	2.4	1.8	0.4	
Gross capital formation	-3.3	4.7	1.5	
Exports of goods and services	7.0	14.6	5.7	
Imports of goods and services	1.0	12.3	6.3	



1980–90 1990–2000 2000–08  
(average annual growth %)

**Balance of Payments and Trade** 2000 2008

(US\$ millions)

Total merchandise exports (fob)	66,121	29,134.3
Total merchandise imports (cif)	174,458	308,603
Net trade in goods and services	-10,661	-24,340
Current account balance as a % of GDP	-8.684	-15.806
	-3.2	-1.5
Workers' remittances and compensation of employees (receipts)	6,573	25,137
Reserves, including gold	35,577	95,298

**Central Government Finance**

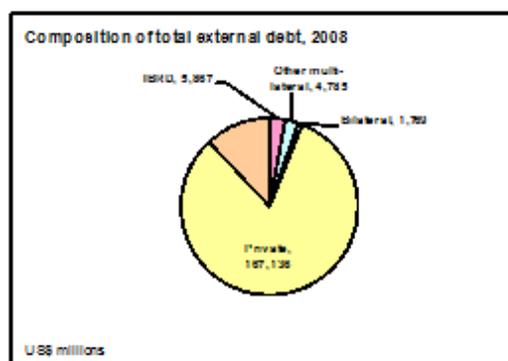
(% of GDP)

Current revenue (including grants)	21.4	23.7
Tax revenue	10.6	8.2
Current expenditure	21.4	19.8
Overall surplus/deficit	-3.4	-2.1
Highest marginal tax rate (%)		
Individual	40	28
Corporate	35	28

**External Debt and Resource Flows**

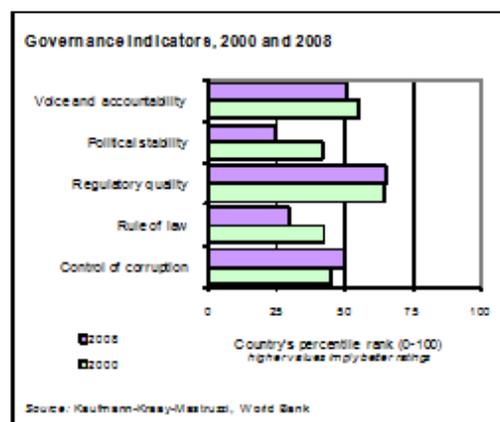
(US\$ millions)

Total debt outstanding and disbursed	150,901	203,984
Total debt service	58,509	41,332
Debt relief (HIPC, MDRI)	-	-
Total debt (% of GDP)	26.0	18.7
Total debt service (% of exports)	30.4	12.1
Foreign direct investment (net inflows)	6,466	18,978
Portfolio equity (net inflows)	447	-3,503



**Private Sector Development** 2000 2010

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	2007
Anticompetitive or informal practices	-	19.0
Corruption	-	17.8
Stock market capitalization (% of GDP)	21.5	38.8
Bank capital to asset ratio (%)	9.6	14.4



**Technology and Infrastructure** 2000 2007

Paved roads (% of total)	32.8	50.0
Fixed line and mobile phone subscribers (per 100 people)	27	82
High technology exports (% of manufactured exports)	22.4	17.1

**Environment**

Agricultural land (% of land area)	55	55
Forest area (% of land area)	33.7	33.0
Nationally protected areas (% of land area)	-	5.3
Freshwater resources per capita (cu. meters)	4,090	3,885
Freshwater withdrawal (billion cubic meters)	78.2	-
CO2 emissions per capita (mt)	3.9	4.1
GDP per unit of energy use (2005 PPP \$ per kg of oil equivalent)	7.9	7.7
Energy use per capita (kg of oil equivalent)	1,533	1,702

**World Bank Group portfolio** 2000 2009

(US\$ millions)

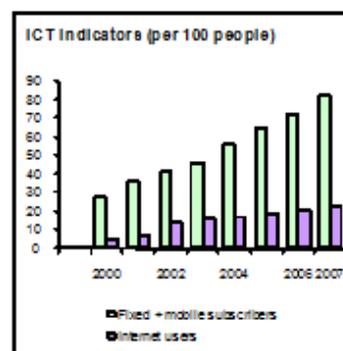
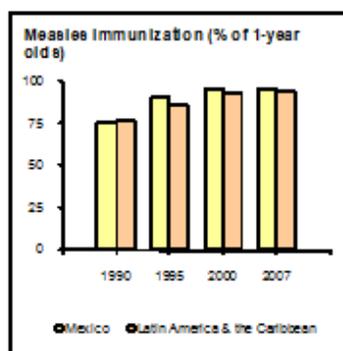
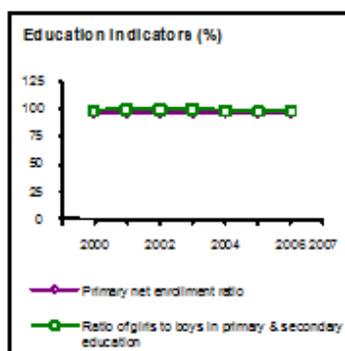
<b>IBRD</b>	
Total debt outstanding and disbursed	11,444 10,142
Disbursements	1,748 4,882
Principal repayments	1,330 654
Interest payments	892 204
<b>IDA</b>	
Total debt outstanding and disbursed	- -
Disbursements	- -
Total debt service	- -
	2000 2007
<b>IFC (fiscal year)</b>	
Total disbursed and outstanding portfolio of which IFC own account	1234 184
Disbursements for IFC own account	723 798
Portfolio sales, prepayments and repayments for IFC own account	179 209
	66 134
<b>MIGA</b>	
Gross exposure	- -
New guarantees	- -

# Millennium Development Goals

Mexico

With selected targets to achieve between 1990 and 2015  
(estimate closest to date shown, +/- 2 years)

	Mexico			
	1990	1995	2000	2007
<b>Goal 1: halve the rates for extreme poverty and malnutrition</b>				
Poverty headcount ratio at \$ 1.25 a day (PPP, % of population)	7.7	7.0	4.8	<2
Poverty headcount ratio at national poverty line (% of population)	–	–	24.2	17.6
Share of income or consumption to the poorest quintile (%)	3.2	4.3	3.9	4.6
Prevalence of malnutrition (% of children under 5)	13.9	–	6.0	3.4
<b>Goal 2: ensure that children are able to complete primary schooling</b>				
Primary school enrollment (net, %)	98	–	97	98
Primary completion rate (% of relevant age group)	88	96	99	104
Secondary school enrollment (gross, %)	55	58	72	87
Youth literacy rate (% of people ages 15-24)	95	96	97	98
<b>Goal 3: eliminate gender disparity in education and empower women</b>				
Ratio of girls to boys in primary and secondary education (%)	97	–	99	99
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	23
<b>Goal 4: reduce under-5 mortality by two-thirds</b>				
Under-5 mortality rate (per 1000)	52	45	38	35
Infant mortality rate (per 1,000 live births)	42	36	32	29
Measles immunization (proportion of one-year-olds immunized, %)	75	90	96	96
<b>Goal 5: reduce maternal mortality by three-fourths</b>				
Maternal mortality ratio (modeled estimate, per 100,000 live births)	–	–	–	60
Births attended by skilled health staff (% of total)	–	86	–	93
Contraceptive prevalence (% of women ages 15-49)	–	67	70	71
<b>Goal 6: halt and begin to reverse the spread of HIV/AIDS and other major diseases</b>				
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	20
Tuberculosis cases detected under DOTS (%)	–	13	64	99
<b>Goal 7: have the proportion of people without sustainable access to basic needs</b>				
Access to an improved water source (% of population)	88	90	93	95
Access to improved sanitation facilities (% of population)	56	66	76	81
Forest area (% of total land area)	35.5	34.6	33.7	33.0
Nationally protected areas (% of total land area)	–	–	–	5.3
CO2 emissions (metric tons per capita)	4.5	4.0	3.9	4.1
GDP per unit of energy use (constant 2005 PPP \$ per kg of oil equivalent)	6.8	6.9	7.9	7.7
<b>Goal 8: develop a global partnership for development</b>				
Telephone mainlines (per 100 people)	6.4	9.7	12.6	18.8
Mobile phone subscribers (per 100 people)	0.1	0.8	14.4	63.2
Internet users (per 100 people)	0.0	0.1	5.2	22.7
Personal computers (per 100 people)	0.8	2.6	5.8	14.4



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

1/25/0

# ANNEX 6. MAP SECTION

