Upgrading Mexico's Economy: What Is in Store for the Texas Border Region?

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October 29, 2014

The views expressed in this presentation are strictly those of the authors and do not necessarily reflect the positions of the Federal Reserve Bank of Dallas or of the Federal Reserve System.
Outline

1. Mexico’s improvements in macroeconomic policy framework
   – The role of an independent central bank
   – Sound fiscal policy
2. Structural reforms underway
   – Recent reforms passed in Mexico
   – Economic implications of reforms
3. Mexico’s economic update
   – Recent economic trends
4. What is in store for the Texas border region?
5. Concluding remarks
1. Mexico’s improvements in macroeconomic policy framework

This part of the presentation is based on “The Conquest of Mexican Inflation,” by Mark Wynne and Edward C. Skelton, Federal Reserve Bank of Dallas, Globalization and Monetary Policy Institute, 2011 Annual Report

Mexico has a long history of recurring crises
(US$/peso exchange rate, % change in monthly average)

Note: Shaded bars denote election years.
Source: Banxico
The rise and fall of inflation
(12-month inflation rate)

Note: Shaded bars denote election years
Source: INEGI
Crises came along with severe consequences (Real GDP per capita growth, PPP-adjusted, percent)

Sources: Penn World Table Version 8.0
Feenstra, Robert C., Robert Inklaar and Marcel P. Timmer (2013), "The Next Generation of the Penn World Table"
Banco de México evolution

• Founded on September 1, 1925.

• Central bank independence given on April, 1994.
  – Banxico has only one mandate: price stability

• Inflation targeting scheme implemented in 2001.

• Taylor-Rule as a guide to policy decisions.
Independent central banks deliver better inflation outcomes

Mexican inflation post-independent central bank
(12-month inflation rate)

Source: INEGI/Banxico
Recent trends in Mexican inflation (12-month inflation rate)

Source: INEGI/Banxico
Central bank independence is paying-off

<table>
<thead>
<tr>
<th>Period</th>
<th>Average annualized monthly inflation</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior to independence (1970 -1994)</td>
<td>37.8%</td>
<td>43.2</td>
</tr>
<tr>
<td>Since independence (1994 – current)</td>
<td>9.8%</td>
<td>12.6</td>
</tr>
<tr>
<td>Since inflation targeting (2001 – current)</td>
<td>4.3%</td>
<td>1.69</td>
</tr>
</tbody>
</table>
Mexico grows a yield curve
Mexico grows a yield curve
Mexico grows a yield curve

Percent

1995
1999
2000
2003

O/N 28D 3M 6M 1Y 3Y 5Y 10Y 20Y 30Y 100Y

1995: Red line
1999: Blue line
2000: Purple line
2003: Orange line
Mexico grows a yield curve

Percent

1995
1999
2000
2003
2004

O/N 28D 3M 6M 1Y 3Y 5Y 10Y 20Y 30Y 100Y
Mexico grows a yield curve
Note: 2010 - 100 yr Bonds were issued in US Dollars, 2014 - 100 yr Bonds were issued in British Pounds
Mexico has embraced fiscal discipline
(percent of GDP)

Source: Secretaria de Hacienda y Credito Publico
National debt is under control (and small) (percent of GDP)

Source: SHCP
Markets recognize Mexico’s efforts

Interest rate spread

Source: Bloomberg

Last Obs. Sept 2014
Independence and fiscal discipline are not enough for growth

<table>
<thead>
<tr>
<th>Period</th>
<th>Average annualized quarterly growth</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior to independence (1970 -1994)</td>
<td>2.7%</td>
<td>5.4</td>
</tr>
<tr>
<td>Since independence (1994 – current)</td>
<td>2.6%</td>
<td>5.1</td>
</tr>
<tr>
<td>Since inflation targeting (2001 – current)</td>
<td>2.2%</td>
<td>3.9</td>
</tr>
</tbody>
</table>
2. Structural reforms underway
Aggressive Structural Reform Agenda

• **Energy**
  – Open whole production chain to private investment

• **Fiscal**
  – Increase tax revenue by increasing VAT and close loopholes

• **Financial**
  – Boost access to credit

• **Telecom and Competition**
  – Boost market competition and break dominant firms

• **Education**
  – Improve education quality

• **Labor**
  – Enhance flexibility in the labor market
Mexican crude oil production

Millions Bbls/Day, SA

Source: INEGI

Hurricanes Opal and Roxanne stopped production in Campeche
Energy Reform

- PEMEX and CFE are both state owned
- Lack of investment into PEMEX and CFE
- Since 2000 electricity prices per kilowatt hour in Mexico have exceeded those in the United States
  - Ranging from 1.1 to 1.7 times
- Mexican oil production in decline
- Reform enacted into law in December 2013
  - Secondary laws enacted in August 2014
  - Reform maintains public ownership of energy resources
  - Opens supply chain
  - Firms can be paid in cash or oil
- PEMEX will now face competition
- CFE faces some competition
- A Mexican Petroleum Fund was created to manage the revenue generated
Fiscal Reform

Tax revenue as % of GDP

- Canada
- Chile
- United States
- OECD - Average
- Mexico

Source: OECD
Fiscal Reform

• Informal sector in Mexico is large compared to other OECD countries
• Government budget is overly dependent on oil revenue
• Reform enacted into law in November 2013
  – Creates a universal pension (social security) system
  – Sugar-tax of one peso per liter
  – 8 percent tax to high calorie foods (Chocolate, candy)
  – Value added tax in the border is raised from 11 to 16 percent
  – New 10 percent capital gains tax
  – Deduction of employment benefits limited to 53 percent
• Marginal income tax increases to 32 percent for those earning over $750,000
  – A 34 percent rate for people earning over $1 million
  – Highest tax rate is now 35 percent when earning over $3 million
• Maquiladora industry also affected
Financial reform

Domestic credit to private sector (% of GDP)

- OECD members
- World
- Latin America & Caribbean (all income levels)
- Mexico
- Heavily indebted poor countries (HIPC)
- Upper middle income

Source: World Bank
Financial Reform

• After the 1994-95 banking crisis
  – Overhaul of the financial regulations
  – Foreign ownership of banks allowed
  – Did little to spur commercial lending

• Creditors have difficulties seizing assets
  – Hinders credit provision

• New reform enacted into law in January 2014
  – Facilitates the creditors to seize assets
  – A system of financial arbitration is created
  – A bureau of financial entities is created
  – Transfer of credit becomes easier to another financial institution
  – Banxico will regulate bank’s fees and the interest rates banks charge for loans
Telecommunications Reform

OECD Fixed (wired) broadband subscriptions per 100 inhabitants, by technology, June 2013

Source: OECD
Telecommunications Reform

• Telecommunications market highly concentrated
• OECD estimates that lack of competition in the communication sector leads to significant welfare losses
  – $129.2 billion from 2005 to 2009, a loss equivalent to 1.8 percent of Mexico GDP.

• Reform enacted into law in June 2013
  – Secondary laws enacted in July 2014
  – Instituto Federal de Telecomunicaciones (IFT) replaces COFETEL
  – Two new free-to-air TV channels will be licensed and set to launch by the end of 2015

• Televisa and America Movil were declared dominant market players by IFT in March 2014
  – Televisa and America Movil will have to share infrastructure with competitors
Education Reform

PISA 2012 Math scores

Source: OECD
Education Reform

• Number of schools, teachers and students was unknown
• Reform enacted into law in February 2013
• Increase quality of education in Mexico
• Enhance the government’s role in the education system
  – Hire and fire teachers based on standardized assessments
• Decrease the power of the labor unions
• National Institute for Educational Evaluation (INEE) created
  – Assess quality, performance, and results of the national education system
• First national census conducted by INEGI from September to December 2013
• CNTE has continued to not follow the law and protest against the reform
Labor Reform

• Perverse incentives towards informal sector creates a drag on productivity growth
• Need to enhance the flexibility of the labor market
• Reform enacted into law in November 2012
  – Creates new employment regimes such as in training and temporary
  – Regulates hourly pay
  – Reform kept the three month salary severance payment when the employer fires and employee without cause
• Critics in the private sector believe the reform did not create a flexible labor market
3. Mexico’s economic update
Mexican economy is picking up after slowdown last year

Source: Banco de Mexico
Deceleration of the Mexican economy in 2013

• Slowing preceded tapering

Due to:

– Low growth, weak trade in the global economy
– Lower public spending as new administration takes office
– Gas shortages slowing manufacturing in central Mexico
– Deep seated weakness in the construction sector
Growth expected to come back

Source: Banco de Mexico
Growing pains from the reforms in the short run

**Consumer confidence**
(Quarterly observations, s.a.)

Index, Jan. 2003=100

**Consumer price index**
(Year-over-Year growth, s.a.)

Source: INEGI/Banxico

Source: INEGI
4. What is in store for the Texas border region?
U.S.-Mexico trade

Billions of real $, SA, annual rates

Source: U.S. Census Bureau, Bureau of Labor Statistics

Mexico joins GATT

NAFTA
How relevant is Mexico in the North America auto production?

• Today, roughly 1-in-5 light vehicles produced in North America come from Mexico.
• Mexico surpassed Canada as the second largest vehicle producer in North America in 2008.
• Mexico also plays a crucial role in auto parts.
• One-third of the auto parts imported into the U.S. come from Mexico.

NAFTA brought stronger economic integration

Source: Federal Reserve Board, Instituto Nacional de Estadística Geografía e Informática
Is Mexico important to the border states?

• Mexico is the third most important trading partner for the U.S.

• For U.S. border states, Mexico is a key trading partner:
  • Arizona ---- $7.1 billion (37%)
  • California ---- $23.9 billion (14%)
  • New Mexico ---- $0.8 billion (29%)
  • Texas ---- $100.9 billion (36%)
## US-Mexico trade by top 10 land ports in 2013

<table>
<thead>
<tr>
<th>Rank</th>
<th>City</th>
<th>Total Land Trade (billions of U.S. $)</th>
<th>Share of Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Laredo, TX</td>
<td>174.6</td>
<td>42.4</td>
</tr>
<tr>
<td>2</td>
<td>El Paso, TX</td>
<td>66.6</td>
<td>16.2</td>
</tr>
<tr>
<td>3</td>
<td>Otay Mesa – San Ysidro, CA</td>
<td>36.1</td>
<td>8.8</td>
</tr>
<tr>
<td>4</td>
<td>Nogales, AZ</td>
<td>27.7</td>
<td>6.7</td>
</tr>
<tr>
<td>5</td>
<td>Hidalgo, TX</td>
<td>27.4</td>
<td>6.7</td>
</tr>
<tr>
<td>6</td>
<td>Eagle Pass, TX</td>
<td>21.4</td>
<td>5.2</td>
</tr>
<tr>
<td>7</td>
<td>Santa Teresa, NM</td>
<td>18.9</td>
<td>4.6</td>
</tr>
<tr>
<td>8</td>
<td>Brownsville – Cameron, TX</td>
<td>14.6</td>
<td>3.6</td>
</tr>
<tr>
<td>9</td>
<td>Calexico, CA</td>
<td>13.2</td>
<td>3.2</td>
</tr>
<tr>
<td>10</td>
<td>Del Rio, TX</td>
<td>4.5</td>
<td>1.1</td>
</tr>
<tr>
<td>11</td>
<td>Other</td>
<td>6.6</td>
<td>1.6</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>411.6</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: Texas Center for Border Economic and Enterprise Development, Texas A&M International University
The role of the border region

- The U.S.-Mexico border region has played a critical role as both nations integrate even further

- *Maquiladoras* are a major vehicle for this cross-border movement of industrial goods

- According to Dallas Fed research, *maquiladoras* drive significant economic activity in U.S. border cities:
  - El Paso: 1-in-4 jobs
  - McAllen: 1-in-3 jobs
  - Laredo & Brownsville: 1-in-10 jobs
Border economy in transition

- Economic activity migrating from manufacturing to services

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<tr>
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</thead>
<tbody>
<tr>
<td>El Paso</td>
<td>20%</td>
<td>6%</td>
<td>73%</td>
<td>85%</td>
</tr>
<tr>
<td>Laredo</td>
<td>4%</td>
<td>1%</td>
<td>86%</td>
<td>86%</td>
</tr>
<tr>
<td>McAllen</td>
<td>14%</td>
<td>3%</td>
<td>74%</td>
<td>88%</td>
</tr>
<tr>
<td>Brownsville</td>
<td>16%</td>
<td>6%</td>
<td>76%</td>
<td>88%</td>
</tr>
</tbody>
</table>

Source: Bureau of Economic Analysis

- Per capita income closing gap with national levels
Per Capita income in TX border region

% of U.S. level


Source: Bureau of Economic Analysis
Concluding remarks

• Mexico has been working on structural reforms since the 1980’s; process accelerated since 2012
• Macroeconomic stability achieved; but per capita GDP growth remains weak
• New reforms are needed to spur growth
• Reform process has caused uncertainty resulting in an economic slowdown
• Brighter future for the Texas border region
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