Eller Breakfast with the Economists
June 3, 2015

Welcome.
Jeff Schatzberg
Dean, Eller College of Management

Welcome.
Patricia Feeney
Senior Vice President, Southern Arizona Market, Chase

Our region
George W. Hammond, Ph.D.
Director, Economic and Business Research Center

Mid-Year ECONOMIC Update
Breakfast with the Economists

sponsored by
JPMORGAN CHASE & CO.
The Takeaways

- Arizona and Tucson are growing
- And there is a good chance that growth will improve
- Tucson struggles with fiscal drag
- Housing will gain momentum when population/household growth accelerates
- Gas prices are helping...households save
- Arizona income gaps growing
- Trade with Mexico matters

Arizona and U.S. Job Growth

Federal Procurement Spending

Tucson MSA Housing Permits
Median House Price in 2014

mapazdashboard.arizona.edu

Tucson MSA and U.S. Job Growth

Tucson MSA Real Income and Sales

Arizona Labor Underutilization

Broadly Defined (U-6) includes marginally attached and involuntary part-time.
Gas Price Dividend

Suppose gasoline prices fall by $1/gallon for one year

- Arizona gas stations sold 2.67 billion gallons in 2014….
  - Which means the drop in gas prices frees up roughly $2.67 billion for households to save/spend on other priorities
  - On a per capita basis, that works out to:

  $368  
  $385  
  $401  

Tucson MSA  Phoenix MSA  Arizona

Population Growth in 2014

mapazdashboard.arizona.edu

Phoenix MSA Gasoline Price

Tucson MSA Population and Permits

Permits, Population Change

Tucson MSA Population and Permits

Permits, Population Change
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Per Capita Income Gaps

Versus U.S.

Arizona & Tucson Education Gaps

Four-Year College Attainment Rates in 2013

Export Shares of GDP in 2013

Merchandise Exports to All Destinations

Arizona Merchandise Exports 2014

Arizona exports
2013: $19.4 bil
2014: $21.1 bil

U.S.: 9.4%
Arizona: 7.0%

Mexico 41%
Canada 10%
Europe 18%
Asia 25%
Other 6%
Arizona Merchandise Export Growth

U.S. Dollar Exchange Rates

Explore data for border economies.
Arizona-Mexico Economic Indicators

New features now available!
The Arizona’s Economy App
Real-time data at your fingertips.

Free at the Apple App Store and Google Play.
Our world
The Mexican Economy

Roberto Coronado
Assistant Vice President in Charge and Senior Economist
Federal Reserve Bank of Dallas, El Paso Branch

Outline
1. Mexico’s improvements in macroeconomic policy framework
   - The role of an independent central bank
   - Sound fiscal policy
2. Structural reforms underway
3. Mexico’s economic update
4. What is in store for Arizona and the 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


Banco de México evolution

- Founded on September 1, 1925.
- Central bank independence given on April, 1994.
  - Banxico has only one mandate: price stability
- Taylor-Rule as a guide to policy decisions.

Crises came along with severe consequences
(Real GDP per capita growth, PPP-adjusted, percent)

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>9.6%</td>
<td>13.7</td>
</tr>
<tr>
<td>Since inflation targeting (2001 – current)</td>
<td>4.2%</td>
<td>2.6</td>
</tr>
</tbody>
</table>
Mexico has embraced fiscal discipline
(percent of GDP)

National debt is under control (and small)
(percent of GDP)

Markets recognize Mexico’s efforts

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>4.9</td>
</tr>
<tr>
<td>Since inflation targeting (2001 – current)</td>
<td>2.2%</td>
<td>3.8</td>
</tr>
</tbody>
</table>
2. Structural reforms underway

- 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

3. Mexico’s economic update

Mexico’s economy gradually improving

<table>
<thead>
<tr>
<th>Year</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>3.10</td>
</tr>
<tr>
<td>2008</td>
<td>5.2</td>
</tr>
<tr>
<td>2009</td>
<td>5.1</td>
</tr>
<tr>
<td>2010</td>
<td>6.1</td>
</tr>
<tr>
<td>2011</td>
<td>4.1</td>
</tr>
<tr>
<td>2012</td>
<td>2.6</td>
</tr>
<tr>
<td>2013</td>
<td>2.1</td>
</tr>
<tr>
<td>2014</td>
<td>2.0</td>
</tr>
<tr>
<td>2015</td>
<td>2.5</td>
</tr>
</tbody>
</table>

*Source: Instituto Nacional de Estadística y Geografía*
Services and manufacturing on the rise, while energy trends downward

Recent economic activity is being driven largely by external demand

Mexico’s exports supported by strong U.S. demand

Manufacturing exports holding up while energy exports are down significantly

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Consumption is gradually picking up

Informality is on a slight decline

Mexico’s growth expected to strengthen

4. What is in store for Arizona and the border region?
Is Mexico important to U.S. 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 ---- $8.6 billion (40.9%)
  - California ---- $25.4 billion (14.6%)
  - New Mexico ---- $1.6 billion (40.9%)
  - Texas ---- $102.6 billion (35.5%)

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

NAFTA brought stronger economic integration

Source: Federal Reserve Board, Instituto Nacional de Estadística Geografía e Informática

Arizona exports to Mexico

Source: Foreign Trade Division, U.S. Census Bureau
5. Concluding remarks

- Mexico has been working on structural reforms since the 1980’s; process accelerated since 2012
- Macroeconomic stability achieved; but per capita income growth remains weak
- New reforms are needed to spur growth
- Reform process caused uncertainty resulting in an economic slowdown
Concluding remarks

• Mexico’s economy is slowly picking up
• Analysts expect GDP growth around 2.9% in 2015 and 3.4% in 2016
• Headwinds:
  – Slower U.S. manufacturing growth
  – Continued low energy prices
  – Weakness and volatility in the value of the peso
• Tailwinds:
  – Stronger U.S. consumption, autos and other durables
  – Stronger growth due to reforms
  – Peso weakness is likely to boost tourism and perhaps some manufacturing

Upgrading Mexico's Economy: Implications for the Arizona Economy

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www.dallasfed.org

A special thank you to JPMorgan Chase & Co. for sponsoring today’s event.