The Economy of the Rio Grande Valley

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Roadmap

- Recent economic trends in the Rio Grande Valley
- Main drivers behind Texas border region economy
  - How relevant is Mexico for the U.S. and Texas?
  - Recent trade trends in the RGV
- Economic landscape in RGV is changing
- Going forward: what is ahead?
Roadmap

- Recent economic trends in the Rio Grande Valley
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- Economic landscape in RGV is changing
- Going forward: what is ahead?
Rio Grande Valley growing again

Index, Jan 2006=100

Source: The Federal Reserve Bank of Dallas.

Note: Business Cycle is a composite index that includes employment, unemployment rate, retail sales and wages.
Employment growth in the Rio Grande Valley
Percent, Dec/Dec, SA

Source: Federal Reserve Bank of Dallas
*2013 Data are August/August
RGV well beyond pre-recession peak employment levels

Index, Jan 2006=100, SA

Source: Federal Reserve Bank of Dallas, Bureau of Labor Statistics
RGV well beyond pre-recession peak employment levels

Source: Federal Reserve Bank of Dallas, Bureau of Labor Statistics
RGV well beyond pre-recession peak employment levels

Source: Federal Reserve Bank of Dallas, Bureau of Labor Statistics
Brownsville Employment Breakdown

<table>
<thead>
<tr>
<th>1991-2008 Average</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>2.8</td>
<td>-1.7</td>
<td>2.4</td>
<td>1.9</td>
<td>2.5</td>
</tr>
<tr>
<td>Private</td>
<td>2.2</td>
<td>-2.6</td>
<td>1.4</td>
<td>2.1</td>
<td>2.6</td>
</tr>
<tr>
<td>Government</td>
<td>0.6</td>
<td>1.0</td>
<td>1.0</td>
<td>-0.2</td>
<td>-0.1</td>
</tr>
</tbody>
</table>

2013* represents year to date annualized rate.
Source: Federal Reserve Bank of Dallas
Government employment excludes military employment
1991-2008 Average 2009 2010 2011 2012 2013*
Total 6.5 -1.7 1.7 5.5 4.1 4.4
Private 5.1 -3.0 1.2 5.8 4.3 3.8
Government 1.4 1.4 0.5 -0.3 -0.2 0.6

2013* represents year to date annualized rate.
Source: Federal Reserve Bank of Dallas
Government employment excludes military employment
RGV unemployment rates trending down but still too high

RGV weathers the recent recession in different ways

<table>
<thead>
<tr>
<th>Metro Area</th>
<th>Peak</th>
<th>Trough</th>
<th>Decline (%)</th>
<th>Bottom to Today (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texas</td>
<td>July 2008</td>
<td>November 2009</td>
<td>5.3%</td>
<td>12.6%</td>
</tr>
<tr>
<td>Brownsville</td>
<td>February 2008</td>
<td>August 2009</td>
<td>4.8%</td>
<td>10%</td>
</tr>
<tr>
<td>McAllen</td>
<td>February 2008</td>
<td>March 2010</td>
<td>16.4%</td>
<td>6.2%</td>
</tr>
</tbody>
</table>
Recent economic trends in the Rio Grande Valley

Main drivers behind Texas border region economy
- How relevant is Mexico for the U.S. and Texas?
- Recent trade trends in the RGV

Economic landscape in RGV is changing

Going forward: what is ahead?
World trade now exceeds pre-crisis peak…
…but still below 1992-2007 trend

Log Index, 2000=100

Last observation
Jan. 2013

Pre-crisis peak
April 2008

26% Below
1992 - 2007 trend

Source: CBP Netherlands Bureau for Economic Policy Analysis
U.S.-Mexico total trade

Billions of Dollars, Real, SA, 3m-m-a

Mexico joined GATT, now WTO

NAFTA

Source: U.S. Census Bureau/Haver Analytics
U.S.-Mexico total trade

Mexico joined GATT, now WTO

NAFTA

4.6% above trend

Billions of Dollars, Real, SA, 3m-m-a

Source: U.S. Census Bureau/Haver Analytics
## Autos leading in U.S.-Mexico trade

<table>
<thead>
<tr>
<th>Sector</th>
<th>2012 (Billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road Vehicles</td>
<td>73.4</td>
</tr>
<tr>
<td>Petroleum</td>
<td>60.6</td>
</tr>
<tr>
<td>Electrical Machinery</td>
<td>50.0</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>38.8</td>
</tr>
<tr>
<td>Office /Automatic Data Processing</td>
<td>30.4</td>
</tr>
<tr>
<td>General Industrial Machinery</td>
<td>24.2</td>
</tr>
<tr>
<td>Power-Generated Machinery</td>
<td>18.2</td>
</tr>
<tr>
<td><strong>Total Trade U.S.-Mexico</strong></td>
<td><strong>494.0</strong></td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau
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.

Texas Exports by Region

Notes: *Latin America excluding Mexico; **Asia excluding China
Source: World Institute for Strategic Economic Research, FRB Dallas
Texas’ top five ports of entry

<table>
<thead>
<tr>
<th>Port</th>
<th>Total land trade, 2012 ($ billions)</th>
<th>% of total U.S.-Mexico land trade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laredo</td>
<td>168.8</td>
<td>40.9%</td>
</tr>
<tr>
<td>El Paso</td>
<td>66.9</td>
<td>16.2%</td>
</tr>
<tr>
<td>Hidalgo/Pharr</td>
<td>26.8</td>
<td>6.5%</td>
</tr>
<tr>
<td>Eagle Pass</td>
<td>21.7</td>
<td>5.3%</td>
</tr>
<tr>
<td>Brownsville-Cameron</td>
<td>15.4</td>
<td>3.7%</td>
</tr>
<tr>
<td>Texas</td>
<td>304.9</td>
<td>73.9%</td>
</tr>
</tbody>
</table>

Source: U.S. Department of Commerce Bureau of the Census, Foreign Trade Division
Top exporting Texas MSAs, 2012

Source: International Trade Administration
McAllen top five exports by sector, 2012

<table>
<thead>
<tr>
<th>Sector</th>
<th>Billions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer and Electronic Product Manufacturing</td>
<td>$2.4</td>
</tr>
<tr>
<td>Electrical Equipment; Appliance; and Component Manufacturing</td>
<td>$0.5</td>
</tr>
<tr>
<td>Transportation Equipment Manufacturing</td>
<td>$0.4</td>
</tr>
<tr>
<td>Machinery Manufacturing</td>
<td>$0.4</td>
</tr>
<tr>
<td>Crop Production</td>
<td>$0.3</td>
</tr>
</tbody>
</table>

Source: International Trade Administration
Brownsville top five exports by sector, 2012

Source: International Trade Administration
RGV–Mexico border synchronization

Mc Allen-Reynosa

Brownsville-Matamoros

Notes: Charts show nonfarm employment annual growth rates (left-axis) for U.S. border cities and maquiladora value-added annual growth rates (right-axis) for Mexican border cities, for the period 2000-2006.

Maquiladoras impact by border city

• 10 percent increase in maquiladora output leads to an increase in the adjacent U.S. city as follows:
  – 2.2 percent increase in total employment in Brownsville
  – 6.6 percent increase in total employment in McAllen
Maquiladoras are quite important for Texas border cities

<table>
<thead>
<tr>
<th>Service</th>
<th>McAllen</th>
<th>Brownsville</th>
</tr>
</thead>
<tbody>
<tr>
<td>City Level</td>
<td>6.58*</td>
<td>2.21</td>
</tr>
<tr>
<td>Construction</td>
<td>4.04*</td>
<td>1.29*</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>1.64</td>
<td>0.66</td>
</tr>
<tr>
<td>Transportation</td>
<td>6.63*</td>
<td>4.6*</td>
</tr>
<tr>
<td>Wholesale</td>
<td>4.01*</td>
<td>0.84</td>
</tr>
<tr>
<td>Retail</td>
<td>3.21*</td>
<td>1.34*</td>
</tr>
<tr>
<td>Finance, Insurance and Real Estate</td>
<td>4.63*</td>
<td>0.64</td>
</tr>
<tr>
<td>Business, Professional and Personal Services</td>
<td>7.38*</td>
<td>3.89*</td>
</tr>
</tbody>
</table>

Notes: This table shows elasticity estimates. That is, the table shows the percentage increase in local employment from a 10 percent increase in maquiladora production for each Texas Border Cities. * indicates significant at the 10% level.

Cross-border retail activity

- Mexican citizens logged 72 million border crossings into Texas in 2012.
- On average, Mexican nationals spend around $4.5 billion per year in Texas border retail.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>McAllen</td>
<td>35-40 percent</td>
</tr>
<tr>
<td>Brownsville</td>
<td>30-35 percent</td>
</tr>
</tbody>
</table>

- Peso-dollar exchange rate fluctuations significantly influence cross-border shopping activity.
Real retail sales are responsive to the Peso-Dollar exchange rate

Retail Sales Index, 2000:Q1=100

Nominal Exchange Rate, Pesos per Dollar

Sources: Texas Comptroller of Public Accounts; seasonal and other adjustments by the Federal Reserve Bank of Dallas
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- Going forward: what is ahead?
RGV economy in transition

- Employment migrating from manufacturing to services

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>McAllen</td>
<td>14%</td>
<td>3%</td>
<td>74%</td>
<td>87%</td>
</tr>
<tr>
<td>Brownsville</td>
<td>16%</td>
<td>4%</td>
<td>76%</td>
<td>88%</td>
</tr>
</tbody>
</table>

- Per capita income closing gap with national levels

Source: Bureau of Economic Analysis
Per capita income in RGV, 1969-2011
(As a share of the US level)

Source: Bureau of Economic Analysis
Percentage-point contribution to border-city earnings growth by selected industries, 2001-2010

<table>
<thead>
<tr>
<th>Industry</th>
<th>Brownsville</th>
<th>McAllen</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>-6.9</td>
<td>-4.4</td>
<td>-7.3</td>
</tr>
<tr>
<td>Health Care</td>
<td>8.8</td>
<td>11.2</td>
<td>4.6</td>
</tr>
<tr>
<td>Retail</td>
<td>-0.3</td>
<td>0.2</td>
<td>-1.6</td>
</tr>
<tr>
<td>Cross-Border Trade</td>
<td>6.5</td>
<td>5.6</td>
<td>5.2</td>
</tr>
<tr>
<td>Transportation</td>
<td>0.1</td>
<td>0.7</td>
<td>-0.2</td>
</tr>
<tr>
<td>Services</td>
<td>6.0</td>
<td>4.8</td>
<td>5.1</td>
</tr>
<tr>
<td>Federal Civilian</td>
<td>0.4</td>
<td>0.1</td>
<td>0.3</td>
</tr>
<tr>
<td>Total Earnings</td>
<td>5.0</td>
<td>6.8</td>
<td>2.7</td>
</tr>
</tbody>
</table>

Source: Crossroads Issue 2: July 2012; Federal Reserve Bank of Dallas, El Paso Branch
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Clouds ahead….

- U.S. recovery continues to be modest
- Mexico’s economy is experiencing a slowdown
- Government budget issues have strong implications to the RGV economy
...brighter future!

- RGV continues to grow
- Private sector is doing well
- RGV has been attracting higher paying jobs
- RGV is closing the gap on per capita income
- RGV needs to capitalize on its unique and strategic location
- Education is critical for the RGV future!
The Economy of the Rio Grande Valley

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