US – MEXICO BORDERNOMICS

Defining Economic Opportunities, Potential, and Challenges
Confronting the US – Mexico Border Regions and Strategies for
Enhanced Prosperity

EXECUTIVE SUMMARY

February 2018
Optimizing prosperity and quality of life on both sides of the US-Mexico border depends on cooperative efforts toward common goals. The purpose of this study is to analyze the economy of the US-Mexico border region in order to improve understanding of regional dynamics and identify actions which could generate meaningful improvement. It is conducted by The Perryman Group (TPG) on behalf of the Mexican and Americans Thinking Together (MATT) Foundation as a catalyst to create the Bordernomics Alliance; the analysis involves both quantitative and qualitative methods and provides results at a level of detail surpassing prior studies of border issues.

The major phases of this analysis include:

- **Data Collection**: The Perryman Group assembled a comprehensive set of data for the United States and Mexico as well as each border state.
- **Focus Groups**: In order to better understand the current situation and the potential for future cooperative efforts, twelve focus groups were conducted throughout the US-Mexico border region.
- **Model Development**: Extensive modeling efforts result in a model which allows for estimation of the total export potential of each US-Mexico border state and the potential benefits of enhancing integration.
- **Analysis of Potential Trade Benefits**: Potential economic benefits of greater integration were quantified.
- **Opportunities, Challenges, and Recommendations**: Based on this process, recommendations were developed to deal with opportunities and challenges.

Although there have been prior studies of border issues, this effort provides an unprecedented level of detail with regard to potential benefits, including results by state and major industry group.

The 10-state border region represents a significant share of the population of and economic activity of both nations.

- The US border states combine for a total population of 75.5 million, which is 23.5% of the total US population. The Mexican border states have a population of 21.2 million, which accounts for 17.8% of the total Mexican population.
- All of the US border states except New Mexico are outpacing the national population growth rate, and the region has been contributing more than one third of total expansion over the past several years.
The Mexican population is significantly younger than the US population. The median age of the population of the US is 38, while Mexico's is only 27.

An initial phase of this analysis involved compiling available data into standardized key economic indicators across the US and Mexico border region states. The Perryman Group estimates that annual business activity in the 10-state area includes nearly $9.1 trillion in expenditures, $4.4 trillion in gross product, and $2.7 trillion in personal income.

Trade between the US and Mexico has grown substantially over the past decades, more than doubling since 1999 and increasing by 15.7% since 2011. Trade in goods and services between the US and Mexico totaled $586.9 billion in 2016. The bulk of that amount is merchandise trade ($530.2 billion or 90.4%), while trade in services equaled $56.6 billion (9.6%). A major reason for this growth is the North American Free Trade Agreement (NAFTA), and a number of studies provide compelling evidence that NAFTA has had a significant and positive impact on the economies of Mexico and the United States. The widely varying characteristics of the two areas give rise to numerous opportunities to further optimize various comparative advantages in production and distribution.

The Perryman Group estimated the current trade potential including net export capacity and net import requirements for each of the US and Mexico border states to illustrate opportunities for additional trade and cooperation.

- The Perryman Group's analysis of trade indicates estimated total export potential from the 10-state area of nearly $2.3 trillion per year.
- For the US border states as a whole, the net export potential is more than $1.9 trillion dollars, while for the Mexico border states, the net export potential is almost $365.0 billion.
- Potential trade by state is indicated in the table below.
### Direct Trade Indicators
(in billions of constant 2017 dollars)

<table>
<thead>
<tr>
<th></th>
<th>Net Export Potential</th>
<th>Net Import Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>US Border States</strong></td>
<td>$1,923.53</td>
<td>$1,274.18</td>
</tr>
<tr>
<td>Arizona</td>
<td>$20.22</td>
<td>$219.17</td>
</tr>
<tr>
<td>California</td>
<td>$1,096.13</td>
<td>$432.71</td>
</tr>
<tr>
<td>New Mexico</td>
<td>$23.75</td>
<td>$86.29</td>
</tr>
<tr>
<td>Texas</td>
<td>$783.43</td>
<td>$536.01</td>
</tr>
<tr>
<td><strong>Mexico Border States</strong></td>
<td>$364.87</td>
<td>$160.38</td>
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<tr>
<td>Baja California</td>
<td>$13.50</td>
<td>$37.82</td>
</tr>
<tr>
<td>Chihuahua</td>
<td>$19.80</td>
<td>$29.19</td>
</tr>
<tr>
<td>Coahuila</td>
<td>$81.02</td>
<td>$45.27</td>
</tr>
<tr>
<td>Nuevo León</td>
<td>$150.38</td>
<td>$11.75</td>
</tr>
<tr>
<td>Sonora</td>
<td>$47.60</td>
<td>$28.53</td>
</tr>
<tr>
<td>Tamaulipas</td>
<td>$52.60</td>
<td>$7.83</td>
</tr>
</tbody>
</table>

Source: The Perryman Group

In order to quantify the benefits of increased cooperation between the US and Mexico, it was necessary to reference a measure of the integration between the two countries. The Perryman Group determined the estimated Economic Integration Index (EII) values for each border state. This measure is based on potential trade within the context of overall production, import, and export patterns. It is analogous to widely used national measures but is modified to reflect relative economic linkages within the border region.

**Enhanced integration can allow for additional trade, which in turn generates economic benefits on both sides of the border.**

- For the 10 US and Mexican states along the border as a group, The Perryman Group estimates that incremental business activity from a one-unit improvement in the Economic Integration Index would lead to gains in business activity including an estimated
  - $175.1 billion in annual expenditures,
  - $75.1 billion in annual gross product,
  - $42.8 billion in annual personal income, and
  - nearly 798,400 jobs.
- The benefits of a two-unit improvement would be more than twice as large,
Summary results by state for a one-unit increase in the EII are described in the following table.

<table>
<thead>
<tr>
<th>Scenario 1: Impact of One-Unit Increase in Economic Integration Index</th>
<th>Expenditures</th>
<th>Gross Product</th>
<th>Personal Income</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>US Border States</strong></td>
<td>$164.92</td>
<td>$69.35</td>
<td>$39.80</td>
<td>702,421</td>
</tr>
<tr>
<td>Arizona</td>
<td>$9.34</td>
<td>$4.49</td>
<td>$2.84</td>
<td>63,651</td>
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<tr>
<td>California</td>
<td>$84.11</td>
<td>$38.29</td>
<td>$21.46</td>
<td>386,953</td>
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<tr>
<td>New Mexico</td>
<td>$2.93</td>
<td>$1.32</td>
<td>$0.79</td>
<td>16,513</td>
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<tr>
<td>Texas</td>
<td>$68.54</td>
<td>$25.25</td>
<td>$14.71</td>
<td>235,304</td>
</tr>
<tr>
<td><strong>Mexico Border States</strong></td>
<td>$10.20</td>
<td>$4.79</td>
<td>$2.96</td>
<td>95,948</td>
</tr>
<tr>
<td>Baja California</td>
<td>$0.79</td>
<td>$0.42</td>
<td>$0.26</td>
<td>15,780</td>
</tr>
<tr>
<td>Chihuahua</td>
<td>$0.85</td>
<td>$0.45</td>
<td>$0.28</td>
<td>15,674</td>
</tr>
<tr>
<td>Coahuila</td>
<td>$1.75</td>
<td>$0.83</td>
<td>$0.53</td>
<td>13,305</td>
</tr>
<tr>
<td>Nuevo León</td>
<td>$3.94</td>
<td>$1.83</td>
<td>$1.14</td>
<td>27,813</td>
</tr>
<tr>
<td>Sonora</td>
<td>$1.29</td>
<td>$0.62</td>
<td>$0.39</td>
<td>11,811</td>
</tr>
<tr>
<td>Tamaulipas</td>
<td>$1.58</td>
<td>$0.64</td>
<td>$0.36</td>
<td>11,566</td>
</tr>
</tbody>
</table>

Source: The Perryman Group

These findings illustrate the substantial potential benefits of enhancing economic integration, although much greater gains are certainly possible. Results are presented by state and industry group within the report and Appendices.

Key opportunities for and challenges to enhancing trade between the US and Mexico were identified based on both the qualitative and quantitative aspects of this assessment. Research revealed common themes in studies of trade potential and barriers to further growth, and the focus groups provided additional information. The Perryman Group’s modeling efforts identified industries where trade could more readily be enhanced based on export potential and import requirements.
Many opportunities for future growth exist, both in traditional areas of trade as well as new arenas. Potential opportunities include the following.

- **Enhance Use of Cross-Border Supply Chains:** Many of the opportunities that exist for enhancing economic integration between the US and Mexico involve increased use of cross border supply chains. These complex production processes allow the US and Mexico to capitalize on each country’s comparative advantages to manufacture products for global markets and create opportunities in both nations. Actions which facilitate these supply chains can enhance integration and result in notable benefits such as increased competitiveness in global markets.

- **Increase Maquiladora Activity:** Continued support and expansion of programs related to maquiladoras and similar initiatives as well as efforts to identify industries and/or companies that would benefit from these programs can bring new entrants into cross border trade.

- **Continue to Develop Traditional Areas of Trade:** Both the presence of dynamic supply chains and maquiladoras have benefitted numerous avenues of manufacturing trade. Agricultural trade has also consistently been an important aspect of the economic relationship between the US and Mexico for many years.

- **Enhance Emerging Areas of Trade:** As the education level in Mexico is rising (yet the cost of living remains lower), there are new possibilities for trade in industries or services that require more skilled labor. New industries and innovative opportunities can build on existing capabilities in the region.

The US-Mexico border region is also facing notable challenges which include the following.

- **Uncertainty over the Future of NAFTA:** While the future of NAFTA is still unknown, the uncertainty caused by a potential US withdrawal from the agreement is causing investment and business growth along the border to slow. Similarly, increased nationalism can generate resistance to integration efforts.

- **Need for Infrastructure Improvements:** The need for improvement at border crossings has long been recognized as one of the major challenges for increased trade between the US and Mexico.

- **Need to enhance security:** The Mexican border states have seen a surge of drug- and gang-related crime over the past decade. A lack of confidence in security will lead to lower investment and less integration along the border.

- **Competition with Other Trade Routes:** Mexico has the potential to serve as a transportation route for goods between the Pacific and the US, whether
imports into the US (especially to areas east of the Mississippi River) or exports to Asia. While there are definite possibilities with such routes, there are also many competing alternatives that are already established.

- **Labor Shortage in Mexico**: Although low wages are generally beneficial for companies, they are not advantageous for workers. In addition to quality of life issues associated with low wages, the fact that Mexican workers are paid less than US workers is contributing to a labor shortage in Mexico. The shortage of skilled workers in Mexico can curtail growth over time, and efforts to improve the situation could benefit both nations.

**Recommendations were developed based on the qualitative and quantitative elements of this analysis.** These actions can help enhance integration, trade and, therefore, economic conditions on both sides of the border.

- **Increase access to higher education and meaningful training** programs in Mexico, particularly those immediately responsive to market needs through public-private partnerships.
- **Increase access to technology** early in the educational process as well as within the home. With a more educated and skilled workforce, Mexico will be able to attract and retain industries characterized by jobs with greater overall compensation.
- **Encourage entrepreneurship** so that new industries can be developed in Mexico. In particular, Mexican government and university initiatives can support business formation including assistance with funding and capital sources, business planning, and regulatory matters.
- **Most importantly, it is crucial to at least maintain the level of economic integration that exists currently through supporting NAFTA.** While much of the uncertainty will remain until a clear outcome to the current negotiations is known, there is an opportunity to advocate for the trade agreement by increasing awareness of the benefits of integration to both nations through public relations campaigns, educational efforts, and the dissemination of factual evidence of the economic gains which can be realized by both the United States and Mexico.

- Economic integration can also be increased through **lowering the barriers** that exist to further integration. One huge barrier is the **infrastructure** and process of crossing the border.
- Another barrier to increased integration has been the **security** concerns surrounding the recent violence in the Mexican border states. Of course, efforts to reduce crime should involve international initiatives with US and Mexico cooperating as effectively as possible, and existing programs of this
nature should be fully supported and expanded as appropriate. It is also important to combat the perception of security problems through disseminating information when successes are achieved such as reduced crime rates.

Increasing economic integration (and therefore trade and the resultant economic benefits) involves taking advantage of opportunities and working together to resolve challenges. The US-Mexico Border region is a vibrant community of people and businesses with strong ties and deep connections. By working together to address challenges faced by both nations, outcomes can be improved for all. Increasing cooperation can also enhance trade, leading to substantial economic benefits. Long-term prosperity on both sides of the border depends on working together toward optimal solutions.

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i U.S. Census Bureau, 2015 American Community Survey 1-Year Estimates.
ii INEGI, Tabulados de la Encuesta Intercensal 2015.