State of Manufacturing: How Changes in Mexico, Brazil, India and China Affect US Suppliers

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Overview

- Conversation/Work in Progress.
- Changes: Globalization with a Vengeance.
- Brazil’s Advantages/Disadvantages.
- China Advantages/Disadvantages.
- India Advantages/Disadvantages.
- Mexico Advantages/Disadvantages.
- How does a US Company react?
- What is the US Government doing about it?
## TOP 10 U.S. TRADING PARTNERS in 2004

<table>
<thead>
<tr>
<th>Country</th>
<th>BILLION DOLLARS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>$256.4</td>
</tr>
<tr>
<td>Mexico</td>
<td>$155.9</td>
</tr>
<tr>
<td>China</td>
<td>$196.7</td>
</tr>
<tr>
<td>Japan</td>
<td>$129.8</td>
</tr>
<tr>
<td>Germany</td>
<td>$77.3</td>
</tr>
<tr>
<td>U.K.</td>
<td>$46.3</td>
</tr>
<tr>
<td>S. Korea</td>
<td>$46.2</td>
</tr>
<tr>
<td>Taiwan</td>
<td>$34.6</td>
</tr>
<tr>
<td>France</td>
<td>$31.6</td>
</tr>
<tr>
<td>Malaysia</td>
<td>$28.2</td>
</tr>
</tbody>
</table>

*Source: U.S. Bureau of Census*
What Has Changed?

Since NAFTA in 1993:

• China and India have joined the Western economy.
• Technical talent: suddenly the pool is larger.
• New markets: addition of some 3 billion people, most of whom are in economies growing 7-9% annually.
• Technological boom: disrupting business model.
  – Overcapacity in international data carrying trunks.
  – Internet connectivity and accessibility.
  – Cheaper and more powerful hardware and software.
US – Still the Benchmark for Manufacturing Productivity

• Advantages:
  – Access to capital, both private and public.
  – Educational system.
  – Superb support infrastructure.
  – Limited government regulation, clear tax regime, low tariffs.
  – Best consumer market in the world.
  – Politically stable.
  – Mobile, well trained workforce.

• Disadvantages:
  – Distant from growing overseas markets.
  – Distant from key suppliers in some sectors.
  – High cost of labor.
Brazil – Not Competitive for Most Manufacturers

• Advantages:
  – Large consumer market.
  – Diverse economy – maybe the best ag sector in the world.
  – History of innovative design, e.g. cars and flex fuel engines.
  – Late 1990s privatization wave – telecom/energy more productive.

• Disadvantages:
  – No free trade agreement in place.
  – No real movement on regulatory reform.
  – Lack of investment in infrastructure.
  – Cost of capital.
  – Huge domestic social problems.
  – Distance from external markets.
China Continues to be Attractive...

- Lots of people. Employees, Consumers. Cheap labor.
- Clusters of manufacturing in all sectors. Trained Employees, Supply Chain.
- Steady, Fast Growth.
- Diaspora and Return.
- Cheap Energy.
- Government’s Pragmatic Dedication to Economic Growth. Domestic and Foreign Policy.

“It doesn’t matter if a cat is black or white…”
But There are Serious Drawbacks

- Political Stability. Glasnost when?
- Security Situation. Nuclear neighbors, Encirclement, Taiwan.
- Legal Structure. Murky, Uncharted for IPR, other protections.
- Cultural Challenge. Middle Kingdom, inaccessible language, philosophy foreign to Western minds.
- Not known for customer service orientation.
- Distance from current consumer markets, both physical and symbolic.
- Potential for Political Backlash from US and Europe.
India is Excellent for a Few Key Sectors...

• Lots of people. Employees, Consumers. Cheap labor.
• Lots of **smart** people. Technical Employees, Rich Consumers.
• Clusters of services. Trained Employees, Supply Chain.
• Steady, Fast Growth.
• Diaspora and Return.
• Service-oriented Culture.
• English language.
• Strong Legal Structure.
But For Many Sectors it is Unattractive

- Bureaucracy/Red Tape.
- Infrastructure in tatters.
- Religious/Caste Problems.
- Energy Costs.
- Lack of Strong Manufacturing Culture.
- Distance from current markets.
Mexico – Just What Your Real Estate Agent Told You…

- NAFTA! Access to Goods/Services/Market in U.S.
- Proximity to World’s Best Consumer Market.
- Forced Disruption to Mexican businesses since 1993. Complete?
- Shared Culture: Western, Hispanic.
- Large installed base of manufacturing in various sectors.
- Perception of stronger legal protections than in China.
- Seen as politically stable.
- Macroeconomic stability.

Location, Location, Location…

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But the Neighborhood Has its Problems

- Domestic Reforms lagging.
- Low rate of economic growth for a developing economy.
- Energy costs highlight lack of reform.
- Infrastructure costs highlight lack of reform.
- Security at border, in Mexico City.
- Level of corruption – broken window theory.
- Popular perception in U.S. can be a challenge.
- Culture surrounding education.
- Slowing productivity gains in manufacturing.
Where Do I Invest and Why?

- How big am I? What resources do I have to draw upon?
- Where is my installed base?
- Where are my customers? Where will they be in 5 years?
- Where are my suppliers? Where will they be in 5 years?
- What Strategic/Political concerns do I have?
- What tariff/duty structure am I faced with?
- As percentage of COGS:
  - What is the land/sea/air cost of my supply chain?
  - What is the cost of energy?
  - What aspects do I need strong legal protection for?
  - What is the cost of skilled and unskilled labor?
  - What is the cost of customization of products?
Who Shrank My Business?

• What is my new Core Competency?
• How well do I manage complexity? Or, How Do I Survive?
  – Outsourced functions. New scale of disaggregation.
  – Make/buy decisions.
  – Globally dispersed.

Strategic Management
Supply Chain
Marketing/Sales
Customer Service
HR

Product Design
Manufacturing Design
Capacity Planning
Logistics

Final Assembly
Intermediate Assembly
Fabrication
Reverse Logistics
One Example of China’s Dominance: Textile Exports to U.S.

Workers in Sector:
- China: 30 million
- Mexico: 700,000

Source: El Norte 9 Nov 05
Second Example:
U.S. Share of Maquila Imports

Source: Banco Mexicano de Comercio Exterior

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U.S. Commercial Service Mission

- Agency of the U.S. Department of Commerce.
- Helps small and medium size U.S. companies export goods and services.
- Protects U.S. business interests abroad.
- Network of 100+ offices in the U.S. and 160 worldwide.
- Embassy/Consulate offices headed by U.S. diplomats.
Products & Services

- Trade Counseling & Advocacy.
- Qualified Appointments for U.S. Companies (GKS).
- Market Research.
- Single U.S. Company Promotions.
- International Buyer Program for Mexican Companies.
- Trade Missions for U.S. Companies.
CS Mexico Results
Oct 2004 – Sept 2005

We helped U.S. companies obtain 540 export sales ($400 million total value)

• 160 days of appointments arranged for U.S. companies.
• 103 trade events (trade missions, seminars, etc.).
• 20 Mexican delegations to U.S. trade shows.

Interagency Representation:
• U.S. Export-Import Bank.
• U.S. Trade Development Agency (TDA).
• U.S. Overseas Private Investment Corporation (OPIC).
Manufacturing Remains Strong in Mexico

- Mexico’s Industrial GDP has grown over 5% annually since 1999.
- In 2004, Industrial GDP reached $180 billion.
  - $87 billion was exported to the US (almost 50%).
  - $7 billion exported to other countries.

While US manufacturing has changed dramatically:
- In past 4 years, US manufacturing employment has fallen 20%.
- Today only 10% of US workers are in manufacturing.
- As % of GDP: US industrial output is only 13%.
- **BUT**: overall US manufacturing output is growing 4%/year.
Understanding Mexico’s Manufacturing Sweet Spot

Supply Chain Complexity
- Short lead times
- Product Bulkiness/Transport complexity

Success stories (castings, fridges)

Advantage Mexico

Advantage USA

Advantage China

Original maquila model

Source: BCG 2005

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How Our Marketing to Manufacturers Program Helps US Suppliers

Goal: Help you export goods/services to Mexican Manufacturers.

- Identify key sectors and market trends through company visits, association partnerships, and market research.
- Highlight opportunities for you to export to these companies through our Trade Leads system.
- Help you locate qualified reps and customers through our services (Gold Key, Int’l Partner Search, Int’l Company Profile).
- Promote trade shows like ExpoManufactura in Feb ’06 where you can identify business opportunities.
- Give you updates on our findings through our US-based offices, electronic newsletters, and web/videoconferences.
Thank You!
How to Contact Me

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www.buyusa.gov/mexico/en/
Appendix
Where We Are in Mexico

- Covers 7 States in NE Mexico.
- $135 bn GDP.
- $20 bn in imports to this region (74% from US).

- Chihuahua (Ciudad Juarez)
- Coahuila (Saltillo)
- Durango
- Nuevo Leon (Monterrey)
- San Luis Potosi
- Tamaulipas (Nuevo Laredo)
- Zacatecas

Tijuana

Monterrey

Guadalajara

Mexico City
Why Does this Challenge Matter to the USG?

Strong Regional Growth in NAM and in LAM is in US Interests.

• A strong neighbor improves:
  – Reduction in illegal immigration to the US.
  – Market for US goods and services.

• NAFTA as an example of healthy trade.

Mexico’s Special Relationship with US
What are We Doing to Help?

**Partnership for Prosperity**
- Bilateral Initiative
- Private Sector Involvement
- Greater Economic Prosperity
- More Purchasing Power
- Decreased Migration

**Security and Prosperity Partnership**
- Trilateral Initiative
- Building on NAFTA
- Security – Led by DHS
- Prosperity – Led by Commerce
What Would Companies Like to See Improved in Mexico?

- Better Energy Infrastructure.
- **Improved Primary, Secondary, Technical, English Education.**
- Better Access to Capital.
- Less bureaucracy for business.
- Better roads, rail, ports.
- Less corruption/more efficient legal system.
- Better border security and megacity security.
- More enforcement of IPR laws.
- Harmonization of regional standards.
Education and R&D

- U.S. Higher Education:
  - Surveys show among the best in the world.
  - Over 500,000 foreign students.
  - Asian students: 60% of total, 70% + in grad school.
  - Mexican students: 2.3% of total, 30% in grad school.
- 200,000 Chinese Engineering Graduates/Year.
- 200,000 Indian Engineering Graduates/Year.
- Patents registered in US in 2004:
  - Mexico 86
  - India 3x
  - China 5x
India’s Dominance in R&D

- Intel announced $1 bn in investments over 5 years.
  - $250 million venture capital fund.
  - $800 million in Bangalore Center (currently 3,000 engineers).
  - Intel has invested $700 million in India over 10 years.
- Has funded 40 companies in India since 1998.
- Is considering building a chip fab plant in India.

Mexico:
- Intel in Guadalajara employs 40 people, has filed for 3 patents.

India’s Dominance, Continued

• Cisco announced a $1.1 billion investment in December 2005.
  – Will triple workforce from 1,400 to over 4,000.

• JP Morgan Chase: will add 4,500 employees by 2007. Already has 4,500 in India.
  – High-valued added: equity analysts, not just backoffice operations.

• UBS announced 500 jobs in 2006 for India.

• Goldman Sachs as 750 employees in India but has capacity to double in its current offices.
Textiles: Not Just China

- US clothing imports from:
  - China: up 71% last year, to $8.2 billion.
  - India: up 34% last year, to $2.7 billion.
  - Bangladesh: up 24%, to $2.23 billion.
  - Indonesia: up 17%, to $2.7 billion.
  - Sri Lanka up 18%, to $1.7 billion.

- Cafta may increase competition from Central America and DR.
- But Asia now dominates this entire sector.
China: Not Just Low-Cost Labor Exports

Of US Imports of High Technology Goods:

- China supplied 22%.
- Japan supplied 10%.

- Overall, 14% of Mexico’s exports worldwide were classified as high technology.

Source: US Census Bureau Dec 2005
Patents in the US

• **Mexico:**
  - 86 Patents in 2004.
  - Only 1 Mexican Company (Vitro).