The Asian Sourcing Boom

David Jacoby
Boston Logistics Group, Inc.
March 23rd, 2007
Who we are

- Supply Chain Research
- Supply Market Forecasts
- Supply Chain Consulting
Our Clients

- Cisco Systems
- SAP
- GM
- Georgia-Pacific
- CABOT
- KCR
- FedEx
- UPS
- Minerals Technologies
- CATERPILLAR
- JAXPORT
- CSX
- ALCOA
- IRON MOUNTAIN
- MAERSK SEALAND
- The Coca-Cola Company
- CN
- ALGERIAN ARAMCO
- D'LOGISTICS AG
- Merlin Gerin
- Snecma
- Canadian Pacific
- DuPont
- Mercedes-Benz
- Massport
Agenda

- The Obvious
- The View to 2050
- Study Results
- Implications
The Obvious
Large Labor Cost Differentials

Hourly Labor Costs by Country

U.S. $ / Hour

0 5 10 15 20 25 30 35

Germany 30
Belgium 28
US 25
UK 23
Ireland 21
Italy 19
Israel 17
New Zealand 16
Korea 16
Singapore 15
Taiwan 15
Hong Kong 15
Czech Republic 15
India 14
Brazil 13
Mexico 13
China 1

Sources: Bureau of Labor Statistics, Computerworld
Structural Underpinnings

- Standard of living
- Age
- Health costs
- Human rights
- Legal protections
- Environmental values
- Plus:
  - Exchange rates

![National Expenditure on Health as a Percent of GDP](chart)

Source: U.K. Committee on Public Accounts
Low-Cost Sourcing a Top Priority

“Which business drivers are likely to have the most influence on your company’s purchasing strategies in the next 10 years?”

<table>
<thead>
<tr>
<th>Drivers</th>
<th>Percent of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Globalization</td>
<td>49%</td>
</tr>
<tr>
<td>Cost leadership</td>
<td>41%</td>
</tr>
<tr>
<td>Innovation</td>
<td>29%</td>
</tr>
<tr>
<td>Outsourcing</td>
<td>25%</td>
</tr>
<tr>
<td>Service focus</td>
<td>18%</td>
</tr>
<tr>
<td>Industry consolidation</td>
<td>12%</td>
</tr>
<tr>
<td>Regulatory compliance</td>
<td>11%</td>
</tr>
<tr>
<td>Customer intimacy</td>
<td>9%</td>
</tr>
<tr>
<td>Cost leadership</td>
<td>25%</td>
</tr>
<tr>
<td>A bid qualifier, not an order winner</td>
<td></td>
</tr>
<tr>
<td>Even the high-end</td>
<td></td>
</tr>
<tr>
<td>Innovation</td>
<td>12%</td>
</tr>
<tr>
<td>Shorter product lifecycles</td>
<td></td>
</tr>
<tr>
<td>Technology / R&amp;D</td>
<td></td>
</tr>
<tr>
<td>Outsourcing</td>
<td>25%</td>
</tr>
<tr>
<td>Core competency</td>
<td></td>
</tr>
<tr>
<td>Faster time to market</td>
<td></td>
</tr>
</tbody>
</table>

Source: Economist Intelligence Unit data, April 2005
Sharply Rising Emphasis

- 37% increase in CPO interest

![CPO Emphasis on Global Sourcing Chart]

- 2000-2004: 2.7
- 2005-2008: 3.7 (37% increase)
Offshoring of Production

Share of World Consumption

<table>
<thead>
<tr>
<th>Year</th>
<th>China</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>6%</td>
<td>10%</td>
</tr>
<tr>
<td>2006</td>
<td>8%</td>
<td>12%</td>
</tr>
<tr>
<td>2007</td>
<td>10%</td>
<td>14%</td>
</tr>
<tr>
<td>2008</td>
<td>12%</td>
<td>16%</td>
</tr>
<tr>
<td>2009</td>
<td>14%</td>
<td>18%</td>
</tr>
</tbody>
</table>

Share of World Production

<table>
<thead>
<tr>
<th>Year</th>
<th>China</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>10%</td>
<td>20%</td>
</tr>
<tr>
<td>2006</td>
<td>12%</td>
<td>22%</td>
</tr>
<tr>
<td>2007</td>
<td>14%</td>
<td>24%</td>
</tr>
<tr>
<td>2008</td>
<td>16%</td>
<td>26%</td>
</tr>
<tr>
<td>2009</td>
<td>18%</td>
<td>28%</td>
</tr>
</tbody>
</table>

Source: Economist Intelligence Unit
...Which is Driving More Imports

U.S. Imports

Sources: EIU WorldData

© 2007 Boston Logistics Group, Inc.
3/27/2007 Tel: (1) (781) 283-5788

Boston Logistics Group
Supply Chain Economists™
Business Process Outsourcing

Increasing the amount of external spend

- Traditional outsourcing
  - Call Centers
  - Logistics
  - Manufacturing
  - I.T.

- Emerging off-shoring models
  - Research & Development
  - Diagnostic testing
  - Lab services
  - Procurement

“This transforms Purchasing’s job from transacting orders to running virtual factories”
  – Barbara Kux, CPO Royal Philips

Sources: EIU, Nasscom
The View to 2050
Major Demographic Shift

US Population (millions of people)

Source: The Future for Investors, Jeremy Siegel
Too Much Retirement

Source: The Future for Investors, Jeremy Siegel
Excess Liquidity

Incremental Population in 2050 vs. 2005 (millions of people)

Source: The Future for Investors, Jeremy Siegel
Shift of Economic Growth to Asia

GDP Growth

Source: Economist Intelligence Unit

Notes: ASEAN includes Indonesia, Malaysia, Philippines, Singapore, Thailand, and Vietnam.
Transfer of Know-How

- China graduating 3 times as many engineers as the U.S. (44% of undergraduates vs. 2% in the US)
- Chinese population growth: 3.3M/year
- US engineering graduates declining by 1%/year

U.S. vs. Chinese Engineering Graduates

Sources: National Science Foundation, CIA Factbook, Boston Logistics Group analysis of UN data
Study Results
3rd State of Strategic Sourcing Study

High-Impact Sourcing
Precision-Guided Sourcing Strategies for Maximum Results
Manufacturer's Edition

On the Cutting Edge of Strategic Sourcing
How Industry Leaders Are Planning to Transform Supply Relationships over the Next Four Years

“The Asian Sourcing Boom: How Long Will It Last?”

Business 2010: Retailing
Embracing the challenge of change

The new face of purchasing

Counting the consumer
Counting dynamic trends in retail and goods

Foresight 2020
Economic, Industry and corporate trends

A Framework for Assessing the Supply Chain Benefits of Transportation Infrastructure Projects

Thinking big
Middle-size companies and the challenges of growth

© 2007 Boston Logistics Group, Inc.
3/27/2007 Tel: (1) (781) 283-5788

Boston Logistics Group
Supply Chain Economists™
Study Background

- 92 respondents
- 14 countries
- Supply chain & procurement focus
  - 50% in procurement
  - 47% in supply chain
  - 3% other C-level
- Broad representation
  - $3.7 billion average revenue
  - Mix of small, medium and large enterprises
- Interviews
Participating Companies

- **Aerospace & Defense**
  - Avionics manufacturer
  - Shipbuilder
  - Aircraft parts manufacturer

- **Automotive & Transport Equipment**
  - Automaker
  - Tire manufacturer
  - Power transmission manufacturer

- **Contract manufacturing**
  - Contract electronics manufacturer
  - Construction company
  - Electro-coating company

- **Chemicals & Plastics**
  - Plastics company
  - Agribusiness manufacturer
  - Smelting and recycling company

- **Consumer Products**
  - Spirits producer
  - Processed food manufacturer
  - Home accessories company

- **Distribution & Wholesaling**
  - MRO distribution company
  - Wholesale grocer
  - Logistics company

- **Electrical & Electronics**
  - Instrument manufacturer
  - Consumer electronics company
  - Lighting and wiring manufacturer
Participating Companies

- **Machinery & Equipment**
  - Semiconductor equipment mfr.
  - Electronic circuit machinery mfr.
  - Printing press manufacturer

- **Instrumentation & Devices**
  - Particle analysis equipment mfr.
  - Spectrometer manufacturer
  - Lab equipment manufacturer

- **Paper, Pulp, and Packaging**
  - Paper manufacturer
  - Lumber products distributor
  - Office supplies manufacturer

- **Pharmaceutical & Life Sciences**
  - Pharmaceutical manufacturer
  - Biopharmaceutical research firm
  - Drug dispenser solution company

- **Professional Services**
  - Financial services company
  - Insurance company
  - I.T. outsourcing firm

- **Retail**
  - Multinational grocery chain
  - Wireless technology retailer
  - Department store holding company
### Extent of LCCS Today

- 54% are seriously engaged
- A way of life for about 30%

#### Extent of LCCS

<table>
<thead>
<tr>
<th>Percent of Spend in Low-Cost Countries</th>
<th>Percent of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than 50%</td>
<td>6%</td>
</tr>
<tr>
<td>40-50%</td>
<td>5%</td>
</tr>
<tr>
<td>30-40%</td>
<td>8%</td>
</tr>
<tr>
<td>20-30%</td>
<td>9%</td>
</tr>
<tr>
<td>10-20%</td>
<td>23%</td>
</tr>
<tr>
<td>0-10%</td>
<td>46%</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>20%</strong></td>
</tr>
</tbody>
</table>
Savings Realized

- 13% average net savings
- 50% “experience premium”

Average Savings Realized from LCCS

Percent Savings vs. Traditional Sources

0% 5% 10% 15% 20%

Average  Heavy Users
Distribution of Savings

- Wide range of savings
- Little correlation by industry or commodity

Distribution of Savings from LCCS
Investment in LCCS

- Few are investing in LCCS
- However, 2.3x investment for those sourcing 20% or more from LCCS today

<table>
<thead>
<tr>
<th>Percent of Respondents</th>
<th>Investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>66%</td>
<td>0-1x</td>
</tr>
<tr>
<td>20%</td>
<td>1-2x</td>
</tr>
<tr>
<td>11%</td>
<td>3-5x</td>
</tr>
<tr>
<td>0%</td>
<td>6-10x</td>
</tr>
<tr>
<td>4%</td>
<td>&gt;10x</td>
</tr>
</tbody>
</table>
LCCS in 5 Years (2011)

- 14% more spend going to LCCS by 2011
- Few companies “half-pregnant”

Incremental Percent of Spend in Low-Cost Countries in 2011

<table>
<thead>
<tr>
<th>% of Respondents</th>
<th>Not at all</th>
<th>50% Less</th>
<th>25% Less</th>
<th>+/- 10%</th>
<th>25% More</th>
<th>&gt;50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incremental</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>40%</td>
<td>30%</td>
<td>10%</td>
</tr>
</tbody>
</table>
China, China, China

Percent of Respondents Identifying the Country as Most Attractive

- China: 50%
- India: 15%
- Vietnam: 10%
- Indonesia: 5%
- Korea: 5%
- Mexico: 5%
- Taiwan: 5%
- Other: 5%

0% 10% 20% 30% 40% 50% 60%
Industry in China, by Region

- **Northeast**
  - Beijing
  - Qingdao
  - Dalian
  - Tianjin

- **Central**
  - Shanghai
  - Nanjing
  - Suzhou
  - Hangzhou

- **South**
  - Guangzhou
  - Shenzhen
  - Hong Kong
Largest Challenges

1. Developing a global sourcing process and staff
2. Managing the communication, culture, or geographic knowledge gap
3. Ensuring product or service quality
4. Maintaining visibility and control over logistics and inventory
Implications
Ask the Right Questions

**Supply Market Outlook**
- Capacity (Utilization)
- Leadtime (Availability)
- Costs (Prices)
- Supplier concentration

**Sourcing Decisions**
- Best suppliers?
- Best contract term?
- Right price?
- Optimal supplier split?

**Analytical Logic**
Ideal contract term?
Right price?
Best supplier split?
Get Reliable Supply Market Intelligence

- How much to offshore or outsource?
- Optimal contract term
- Optimal number of suppliers

Example of Supply and Demand Imbalance for an Industrial Capital Purchase

![Graph showing supply and demand imbalance with years 2006 to 2012 and millions of US dollars on the y-axis.]
Form a Bold Supply Chain Vision

- New business models
- Innovation & creativity
- Relationships

Don’t sacrifice the innovation engine for low cost!
Our Research Products

- Supply Chain Research
- Supply Market Forecasts
- Supply Chain Consulting
Boston Logistics Group helps supply chain executives make critical supply chain decisions that involve investment and risk by forecasting the evolution of supply markets and technologies. Our mission is to help our clients develop globally competitive supply networks that maximize Supply Chain Value.™ Our products and services include:

- **Supply Chain Research** that helps investors and policy makers quantify the benefit of emerging technologies and decide whether or not to invest in them
- **Supply Market Forecasts** that help purchasing managers decide how, where, and when to buy critical externally-purchased materials and services
- **Supply Chain Consulting** that supports high-stakes decisions such as acquisitions, outsourcing, off-shoring, and make-or-buy

**Industries Served:**

- Supply Chain Solutions Providers: Advanced Planning and Scheduling (APS), Customer Relationship Management (CRM), Enterprise Resource Planning (ERP), Location-Based Services (LBS), Transportation Management Systems (TMS), Warehouse Management Systems (WMS)
- Discrete Manufacturing: Machinery, Equipment, Vehicles, Parts, Mechanical and Electrical Devices
- Transportation: Railroads, Ocean Shipping Lines, Airlines, Trucking Companies, Package Delivery, Intermodal
- Logistics: Dedicated and Third Party Logistics, Ports, Stevedoring, Storage, Material Handling, Distribution, Maintenance, Retail