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The Asian Sourcing Boom: How Long Will it Last?

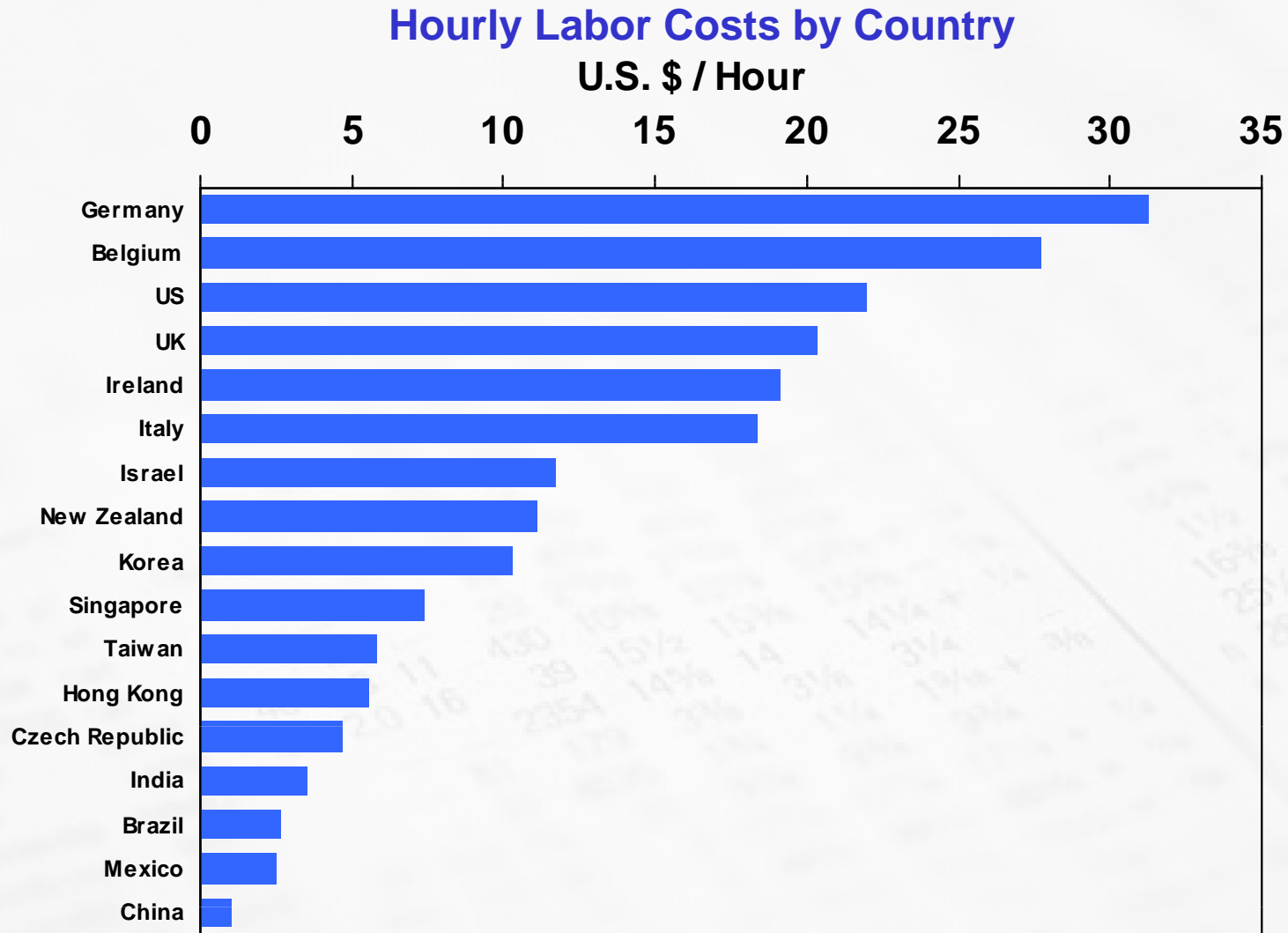
David Jacoby
January 23, 2008

Agenda

- The Obvious
- The View to 2050
- Study Results
- Implications

The Obvious

Large Labor Cost Differentials



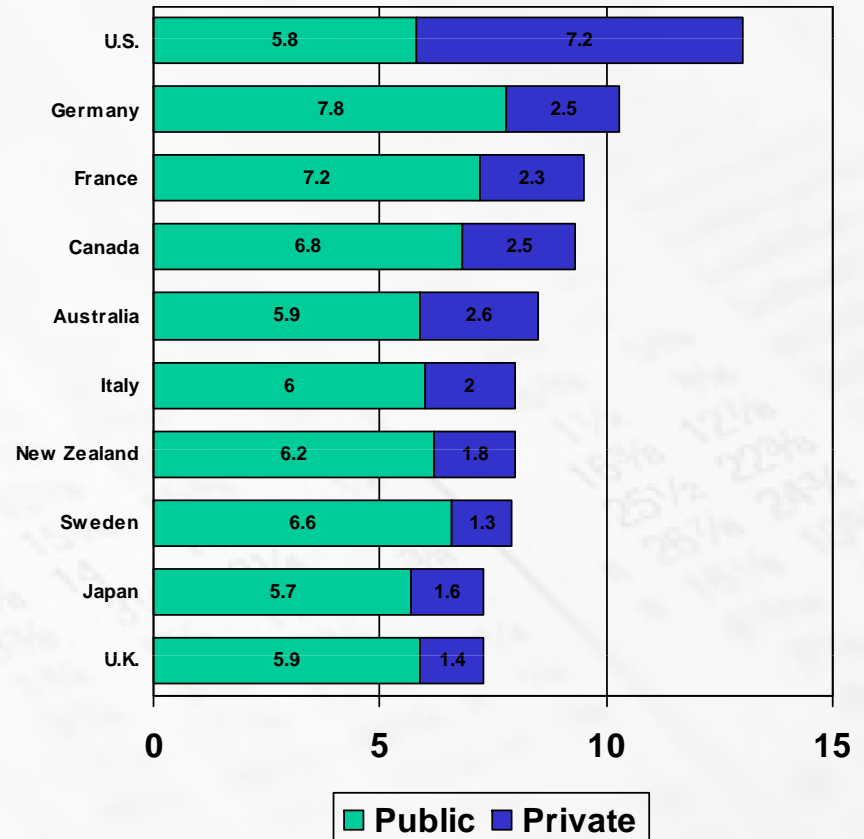
Sources: Bureau of Labor Statistics, Computerworld



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

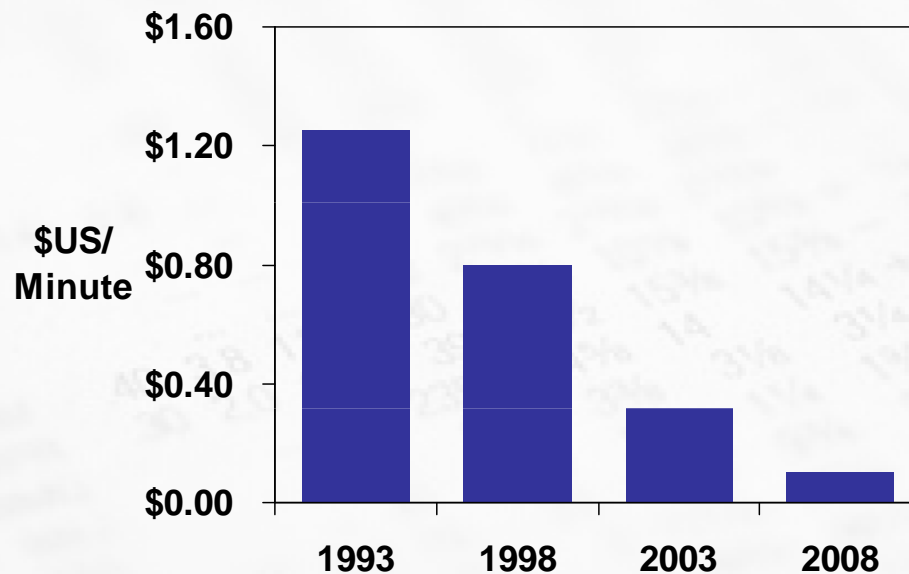


Source: U.K. Committee on Public Accounts

Declining Communications Costs

- Internet, webcast, etc.
- Phone rates
- Travel

International Calling Rates: OECD Countries to any other OECD Country

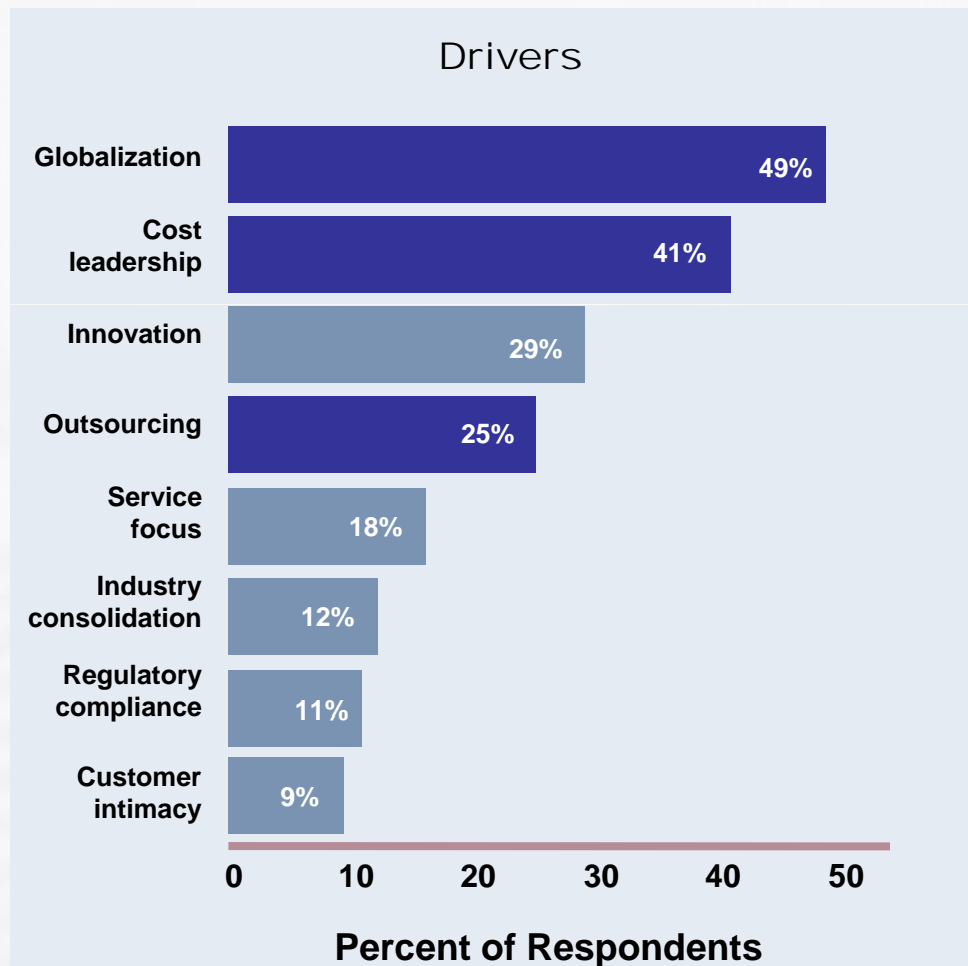


Source: OECD, Boston Strategies International analysis



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?”

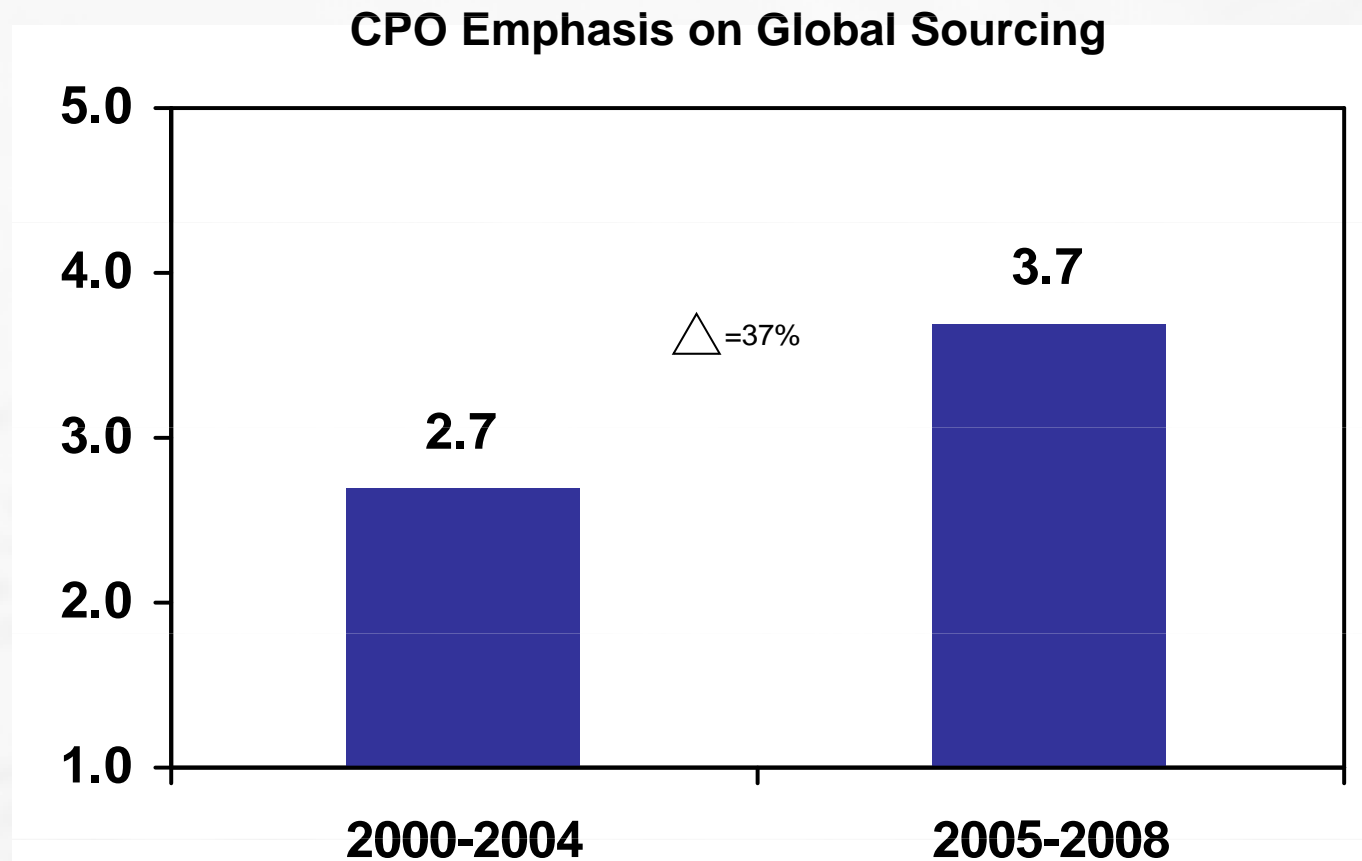


Source: Economist Intelligence Unit data, April 2005

- **Globalization**
 - Low-cost country sourcing
 - Growth markets
- **Cost leadership**
 - A bid qualifier, not an order winner
 - Even the high-end
- **Innovation**
 - Shorter product lifecycles
 - Technology / R&D
- **Outsourcing**
 - Core competency
 - Faster time to market

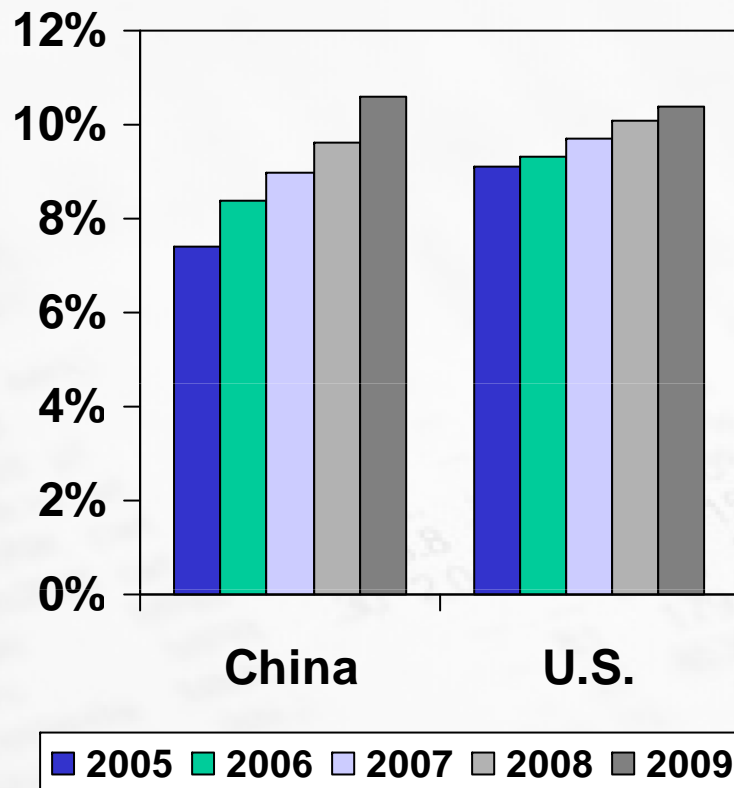
Sharply Rising Emphasis

- 37% increase in CPO interest

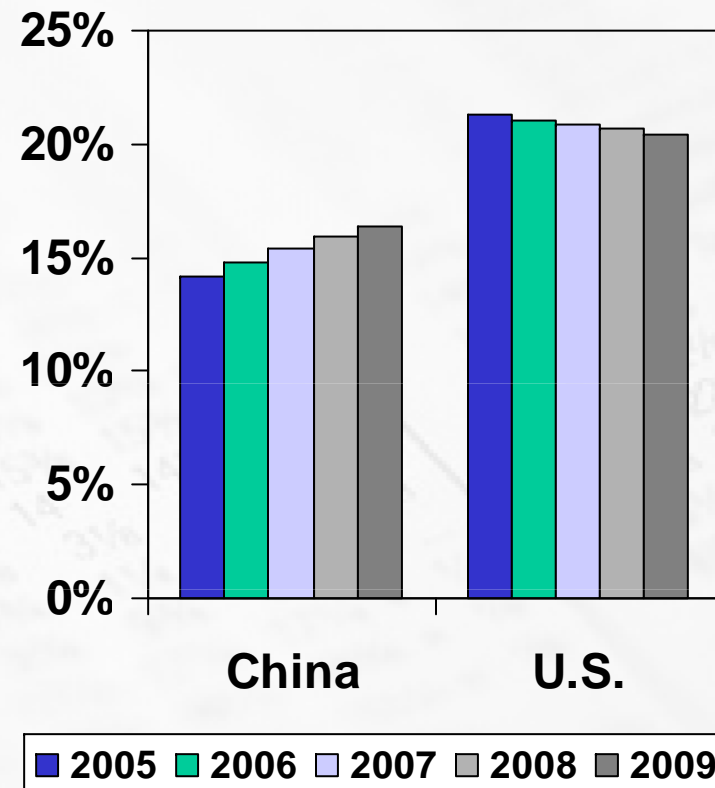


Offshoring of Production

Share of World Consumption



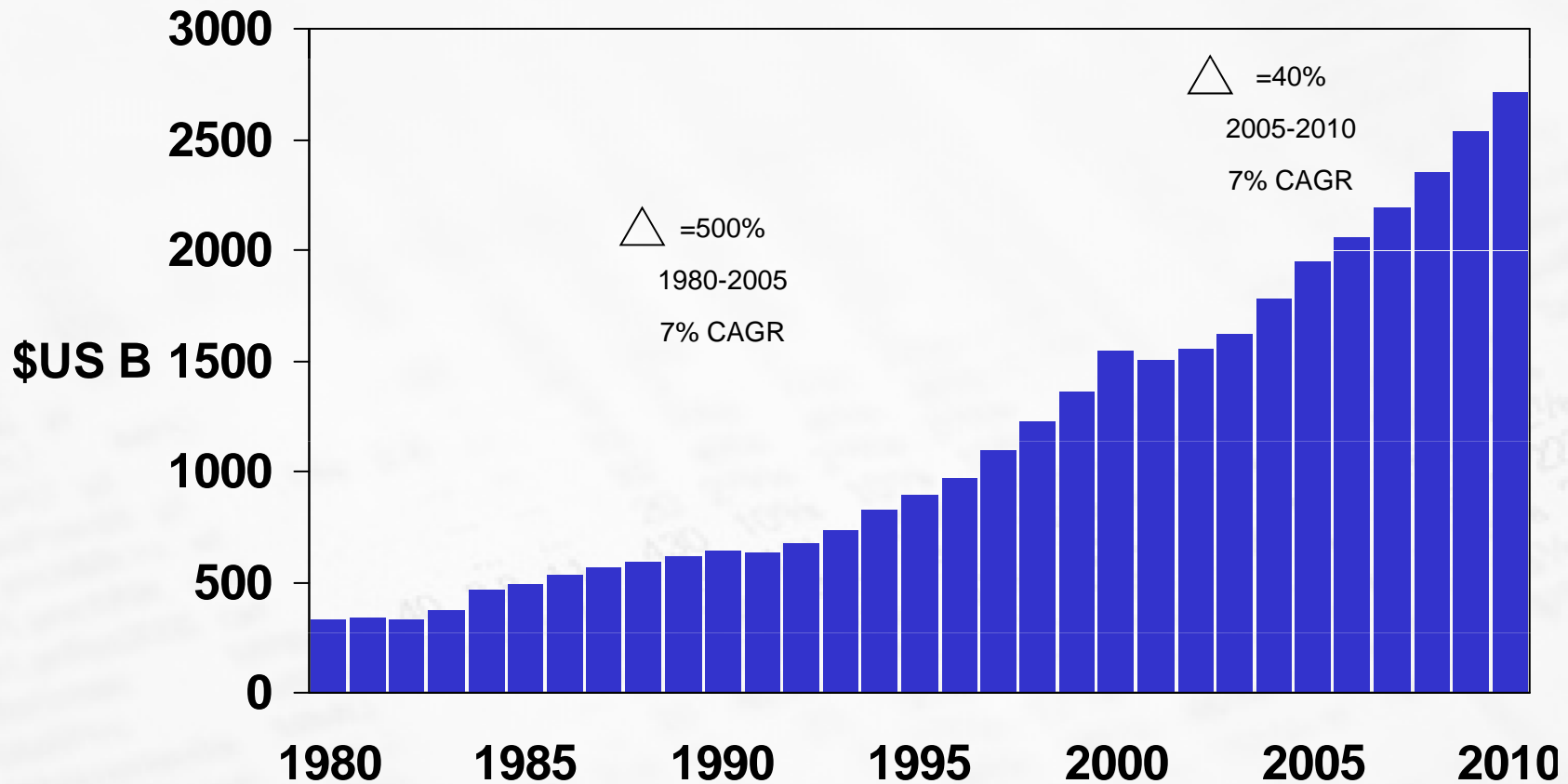
Share of World Production



Source: Economist Intelligence Unit

...Which is Driving More Imports

U.S. Imports



Sources: EIU WorldData

Business Process Outsourcing

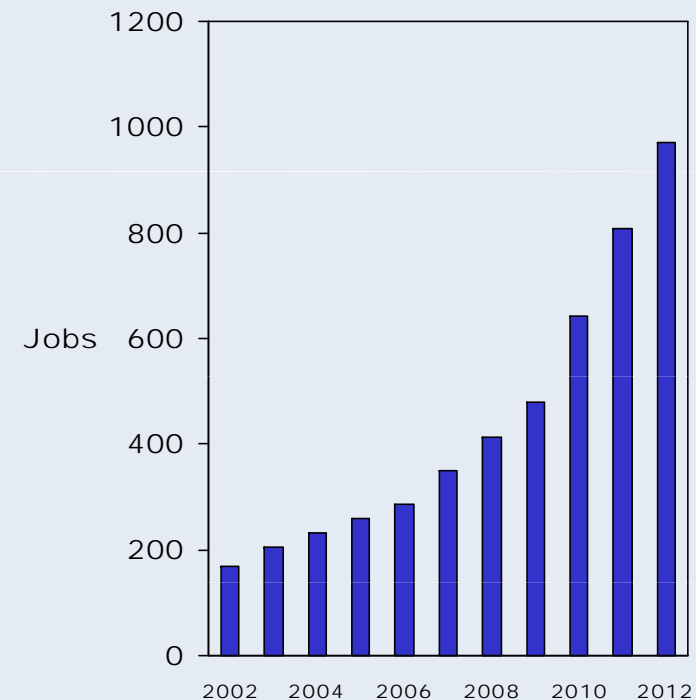
Increasing the amount of external spend

- **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

BPO in India

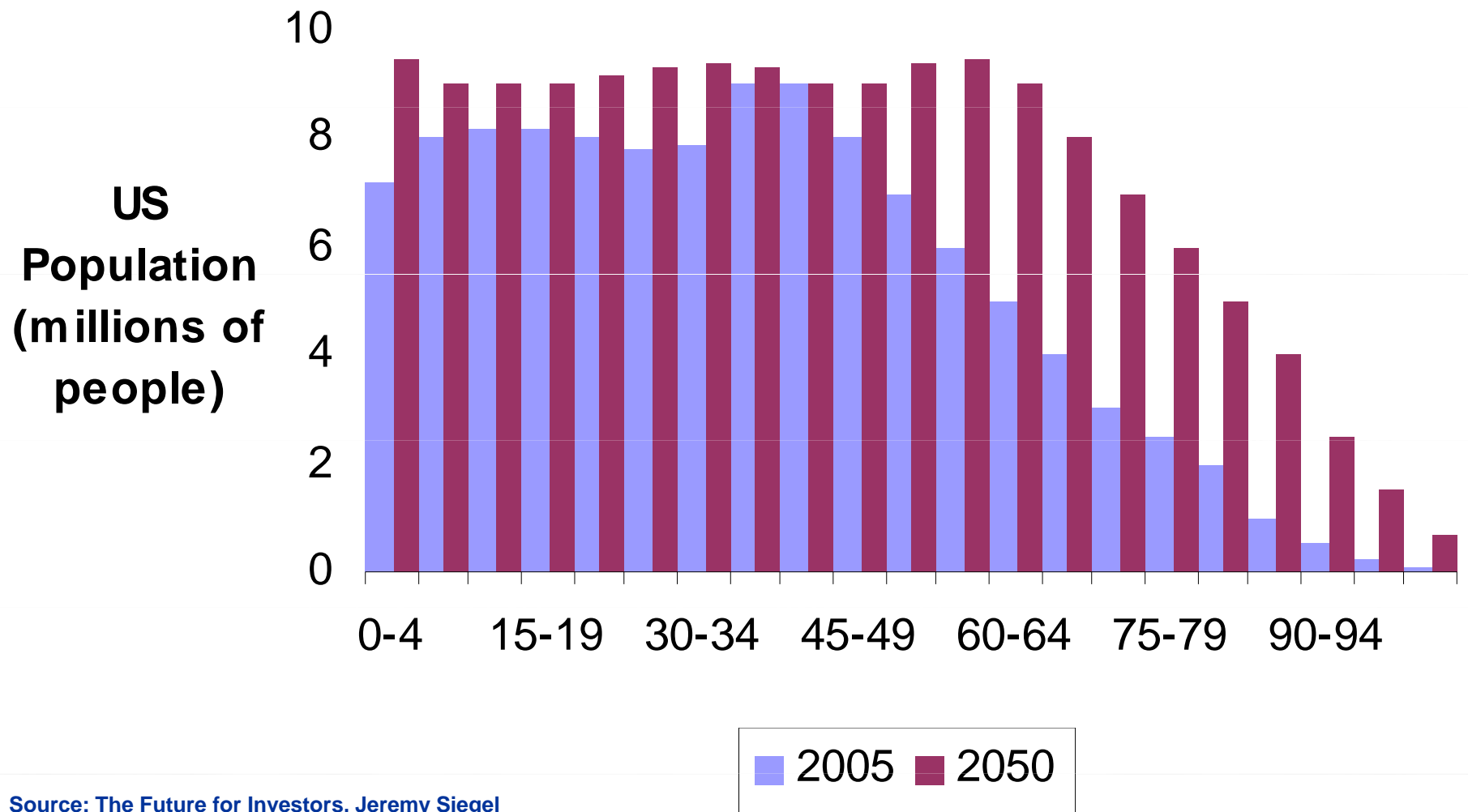


Sources: EIU, Nasscom



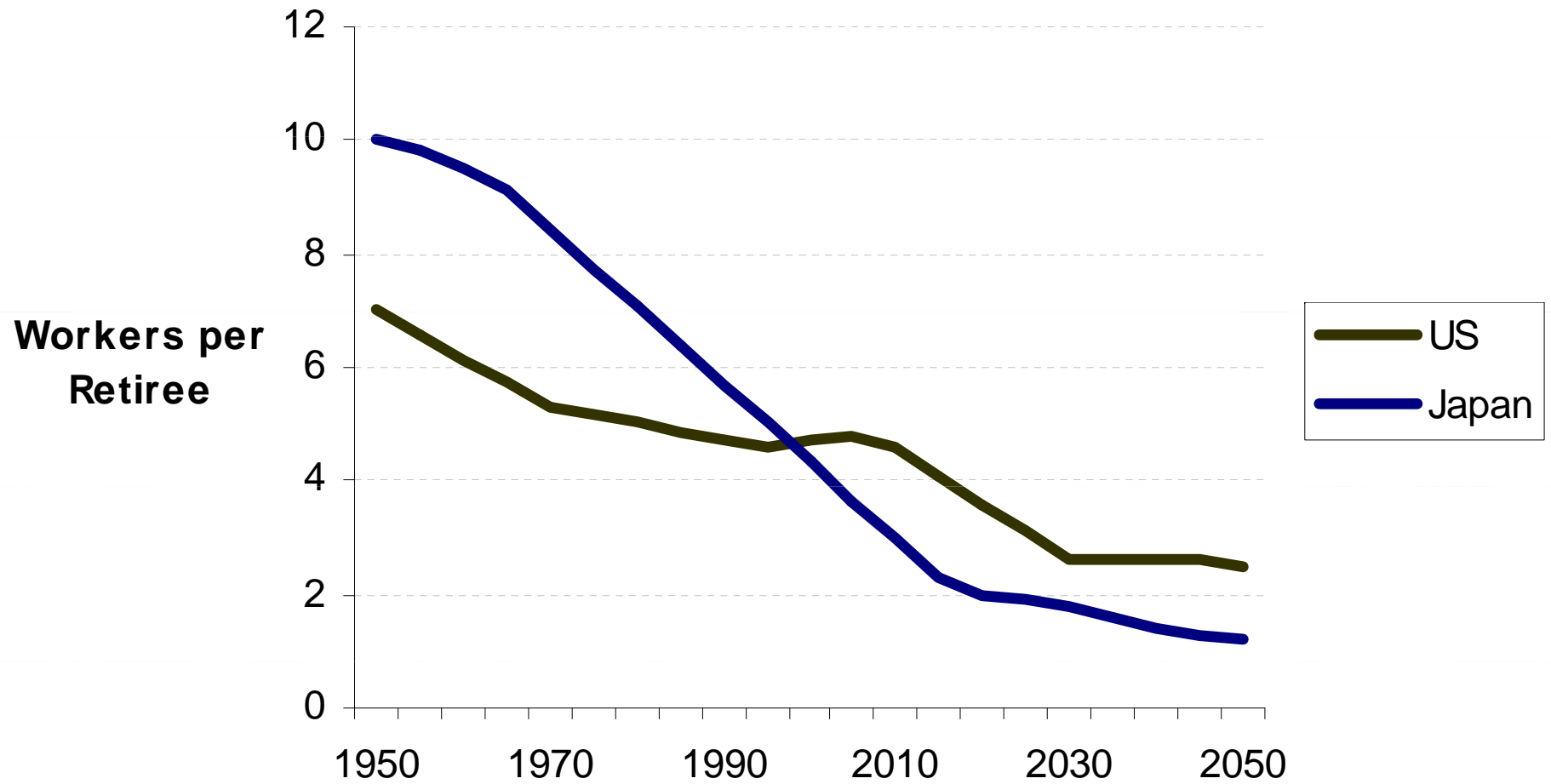
The View to 2050

Major Demographic Shift



Source: The Future for Investors, Jeremy Siegel

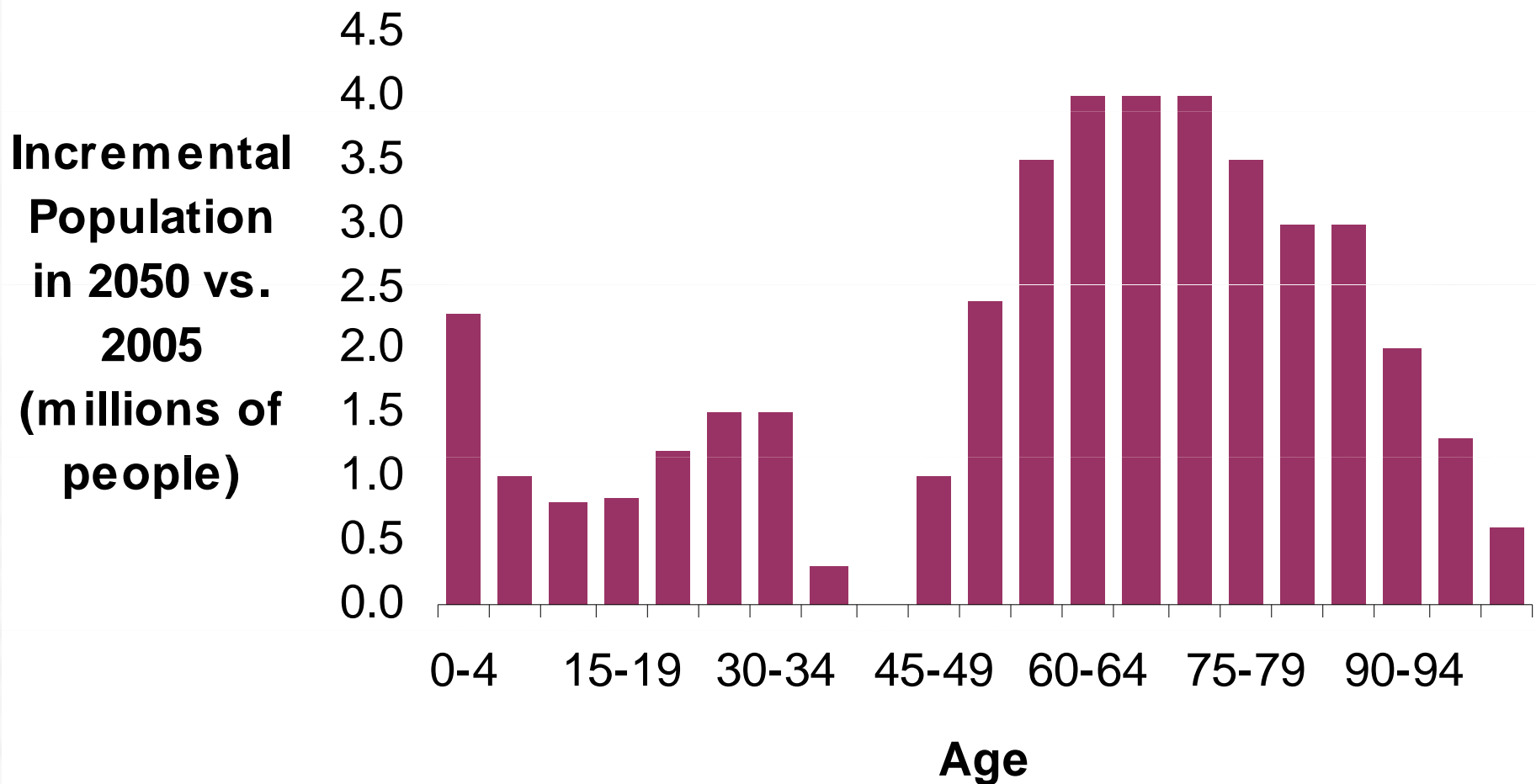
Too Much Retirement



Source: The Future for Investors, Jeremy Siegel



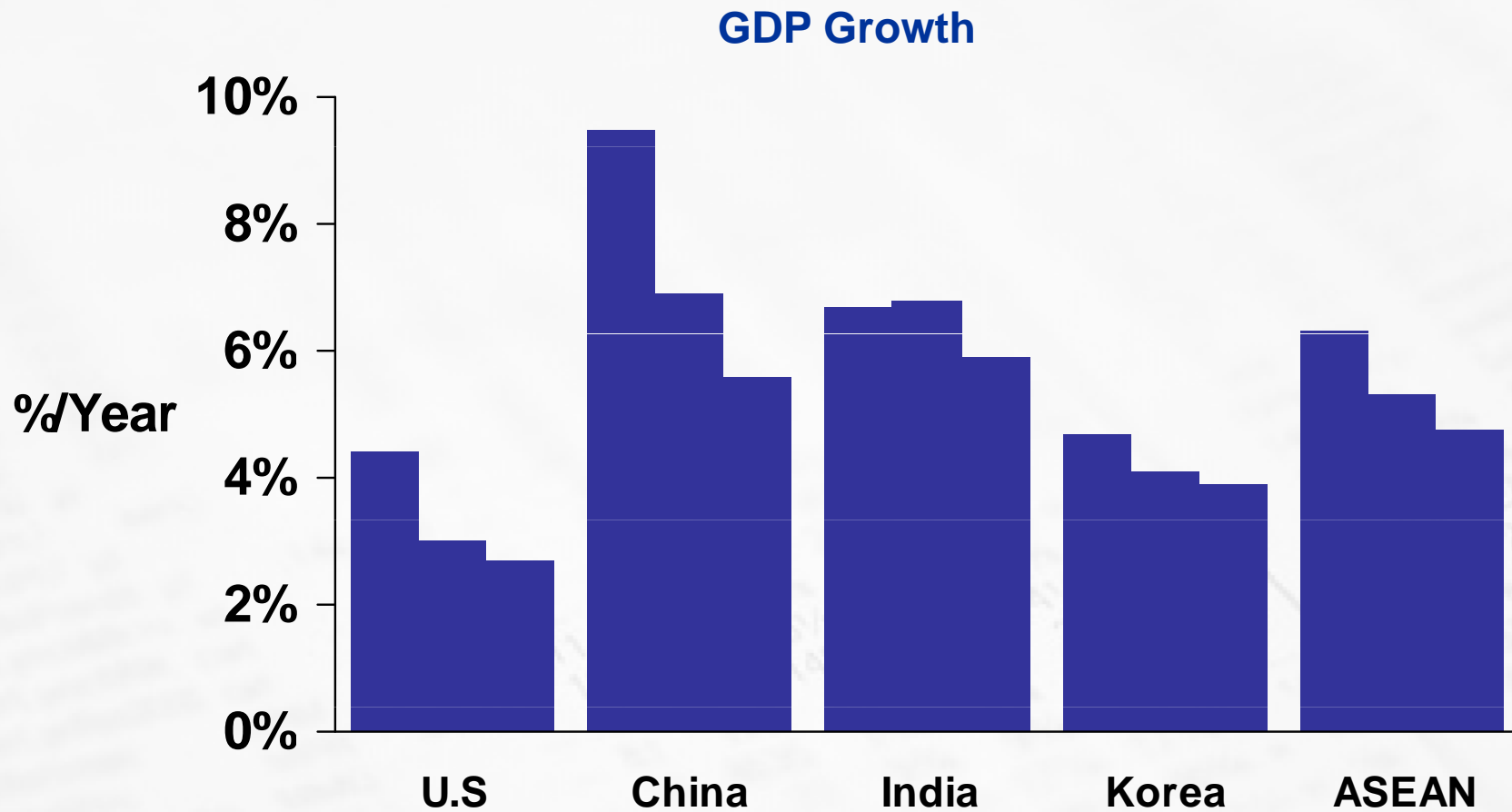
Excess Liquidity



Source: The Future for Investors, Jeremy Siegel



Shift of Economic Growth to Asia



Source: Economist Intelligence Unit

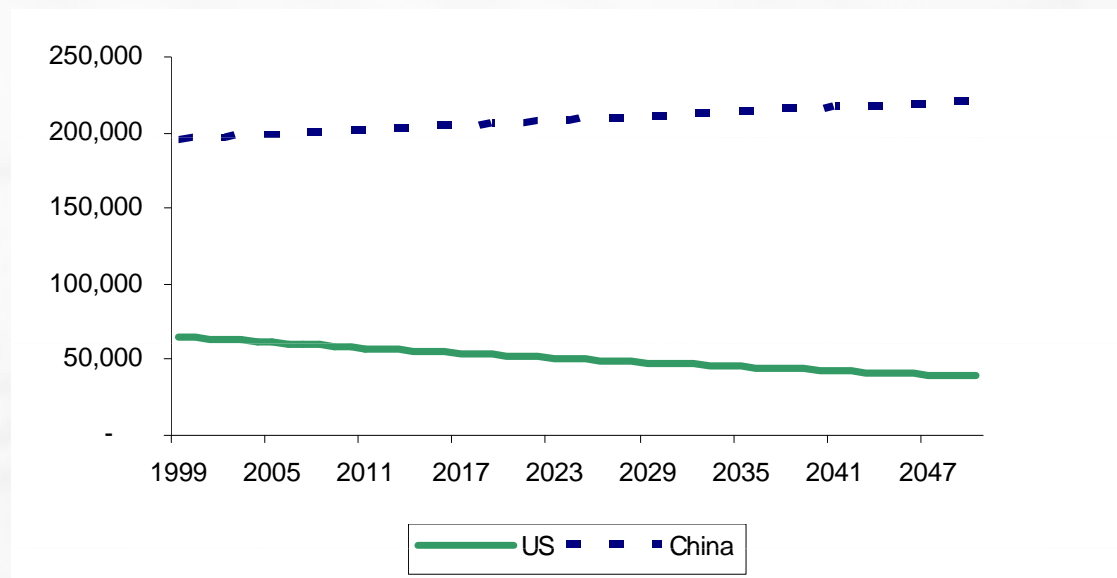
■ 2004 ■ 2008 ■ 2030

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

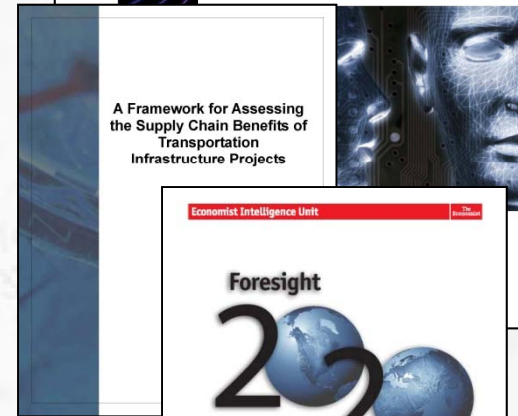
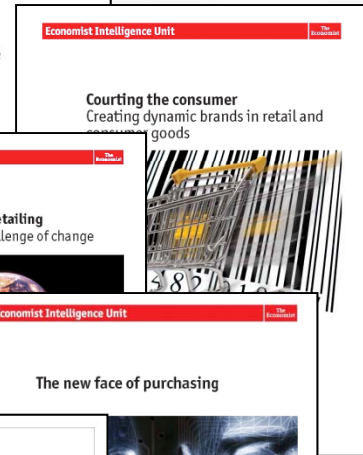
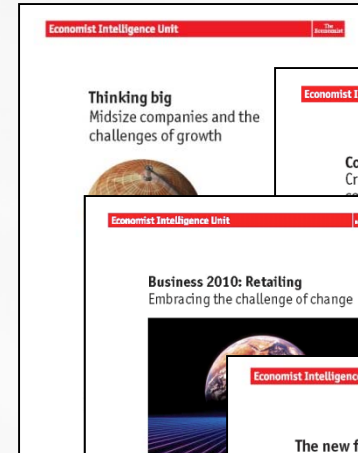
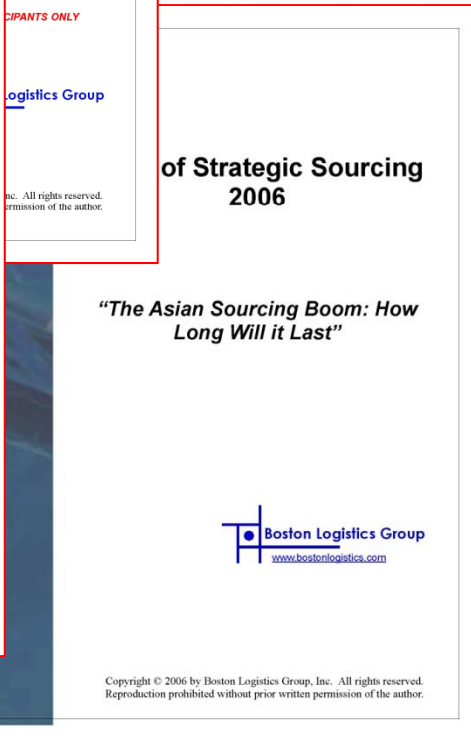
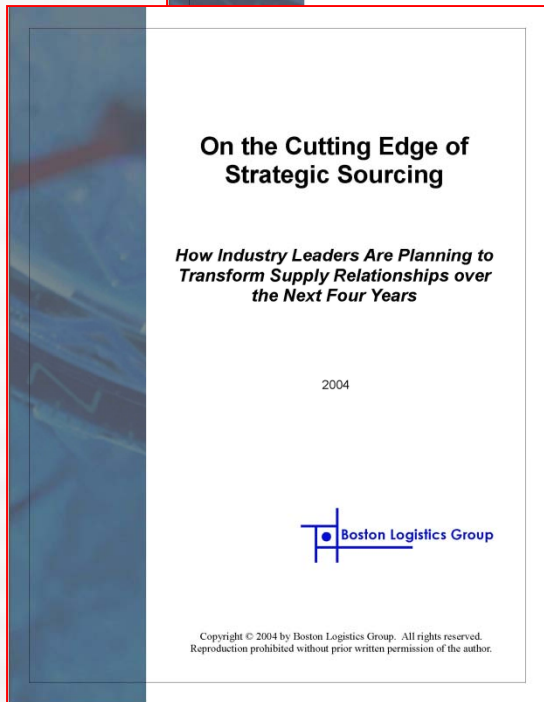


Sources: National Science Foundation, CIA Factbook, Boston Strategies International analysis of UN data



Study Results

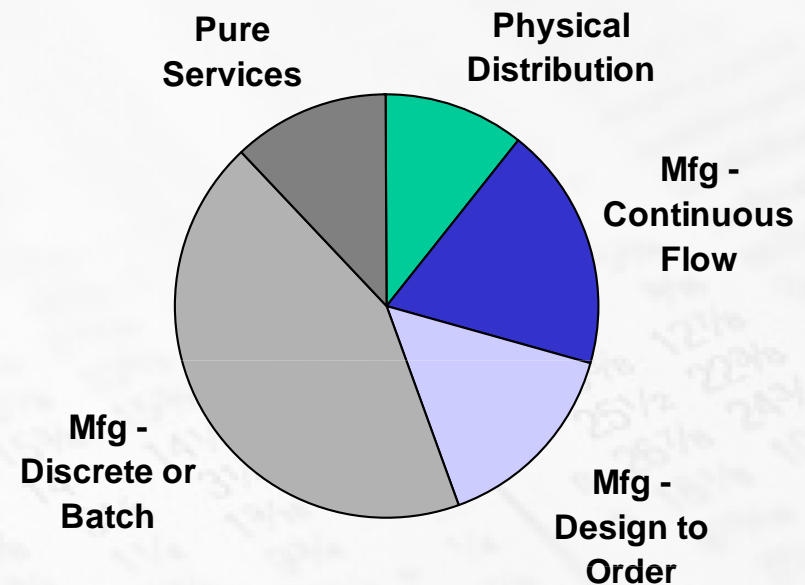
3rd State of Strategic Sourcing Study



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**

Respondents by Supply Chain Type™



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%

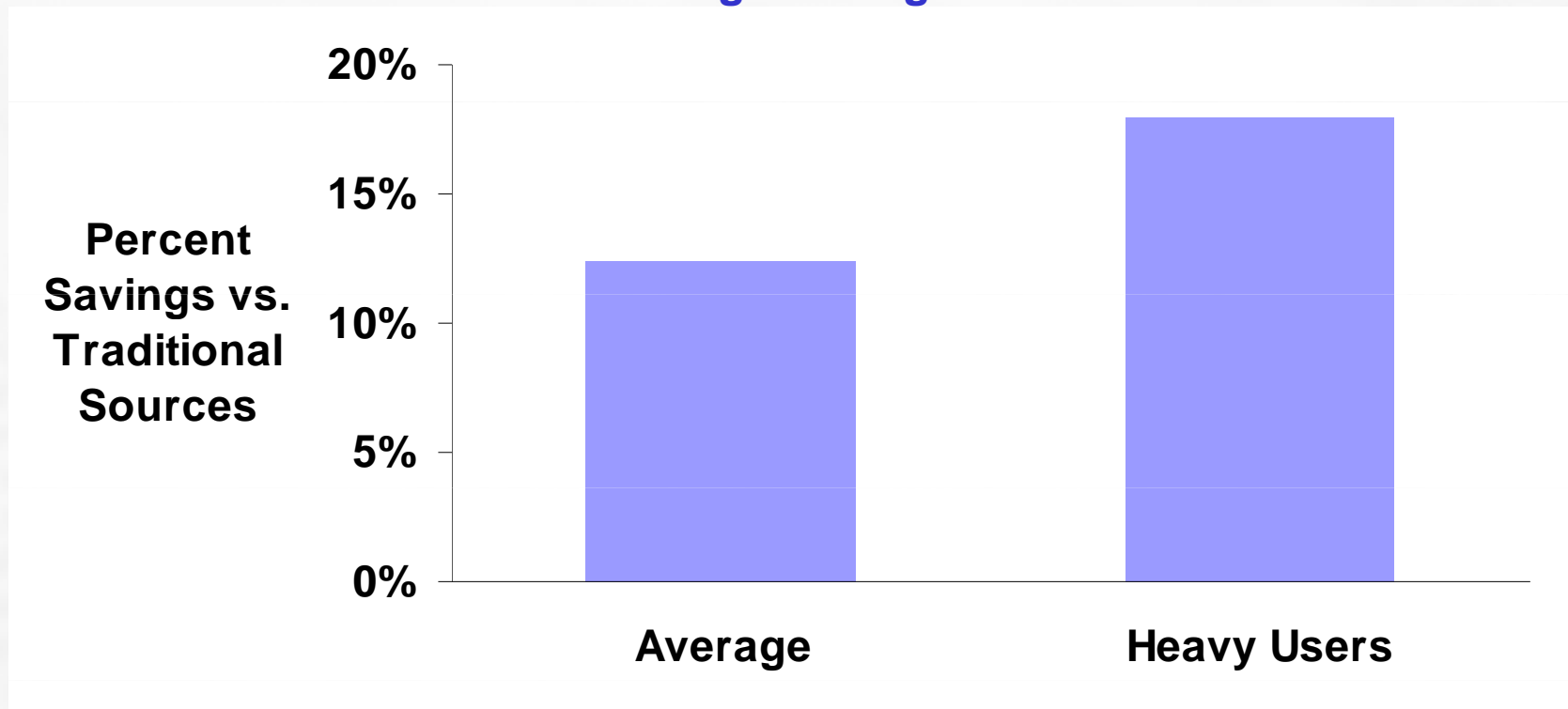
Extent of LCCS

Percent of Spend in Low-Cost Countries	Percent of Respondents
More than 50%	6%
40-50%	5%
30-40%	8%
20-30%	9%
10-20%	23%
0-10%	46%
Average	20%

Savings Realized

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

Average Savings Realized from LCCS



The Learning Curve

- **Accessing real-time information**
- **Setting realistic goals and objectives**
- **Controlling goods in the pipeline**

Logistics Providers Serving China

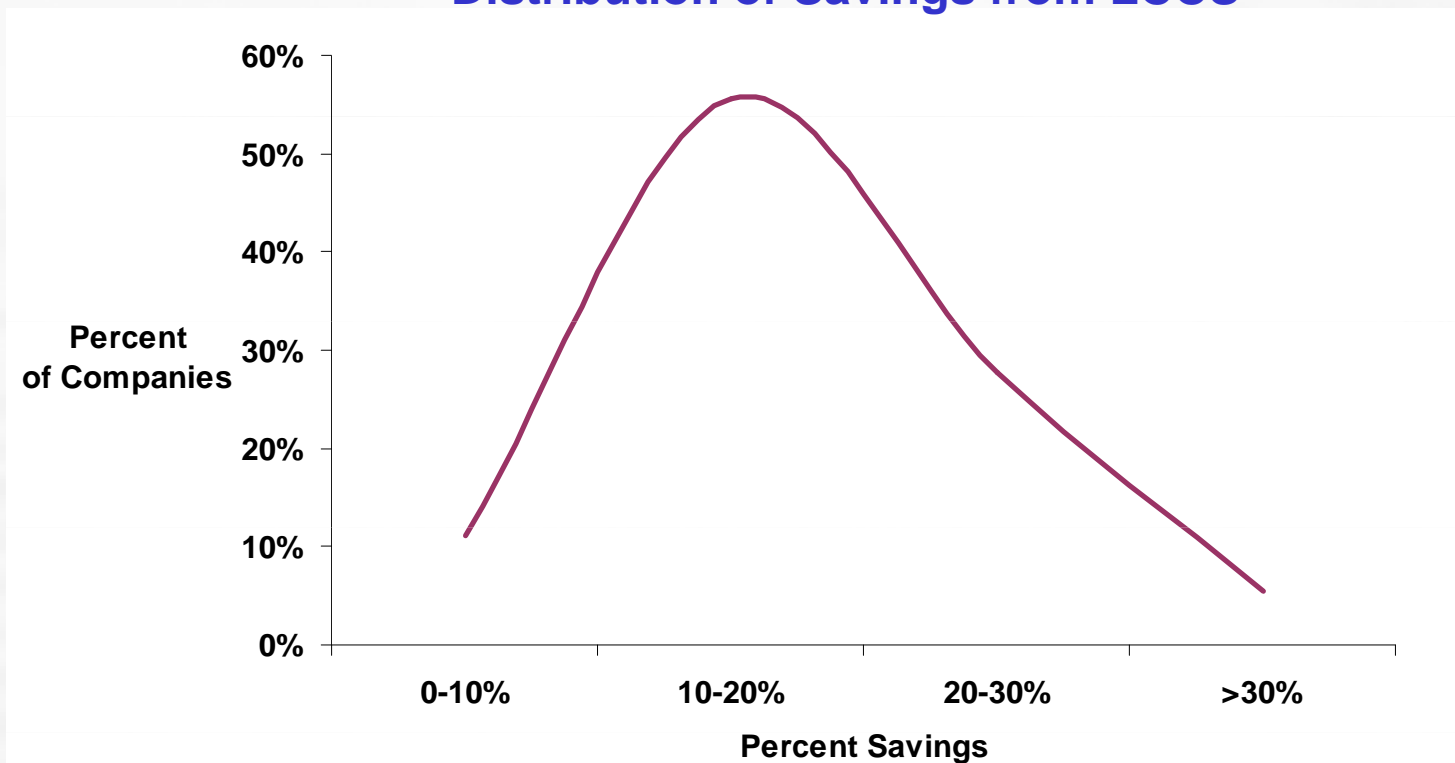
Western Firms		Chinese Carriers		Chinese 3PLs
<ul style="list-style-type: none"> ■ APL ■ BAX ■ Danzas ■ DHL ■ Exel ■ Expeditors ■ FedEx 	<ul style="list-style-type: none"> ■ HTB ■ K&N ■ Maersk ■ Panalpina ■ Schenker ■ TNT ■ UPS 	<ul style="list-style-type: none"> ■ China Materials Storage and Transportation Co. ■ China Post ■ China Resources 	<ul style="list-style-type: none"> ■ China Shipping ■ COSCO ■ CRE ■ CRML ■ Sinotrans 	<ul style="list-style-type: none"> ■ China Overseas Logistics ■ EAS ■ Hurry Top ■ Jiuchuan Logistics ■ PGL ■ St-Anda

Sources: Boston Strategies International, China Warehousing Association, China Logistics Market Demand and Supply Analysis Report.

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

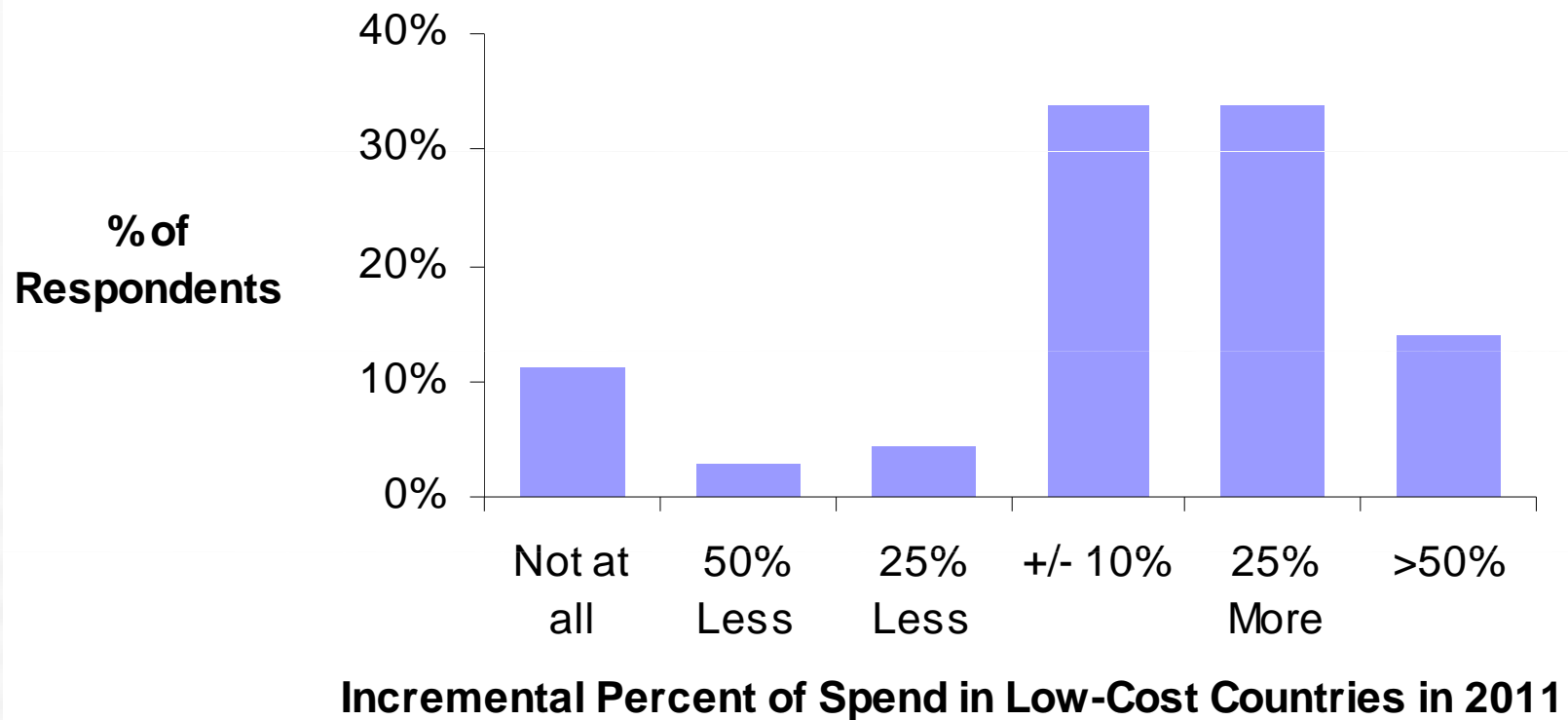
Investment in LCCS

Percent of Respondents	Investment
66%	0-1x
20%	1-2x
11%	3-5x
0%	6-10x
4%	>10x

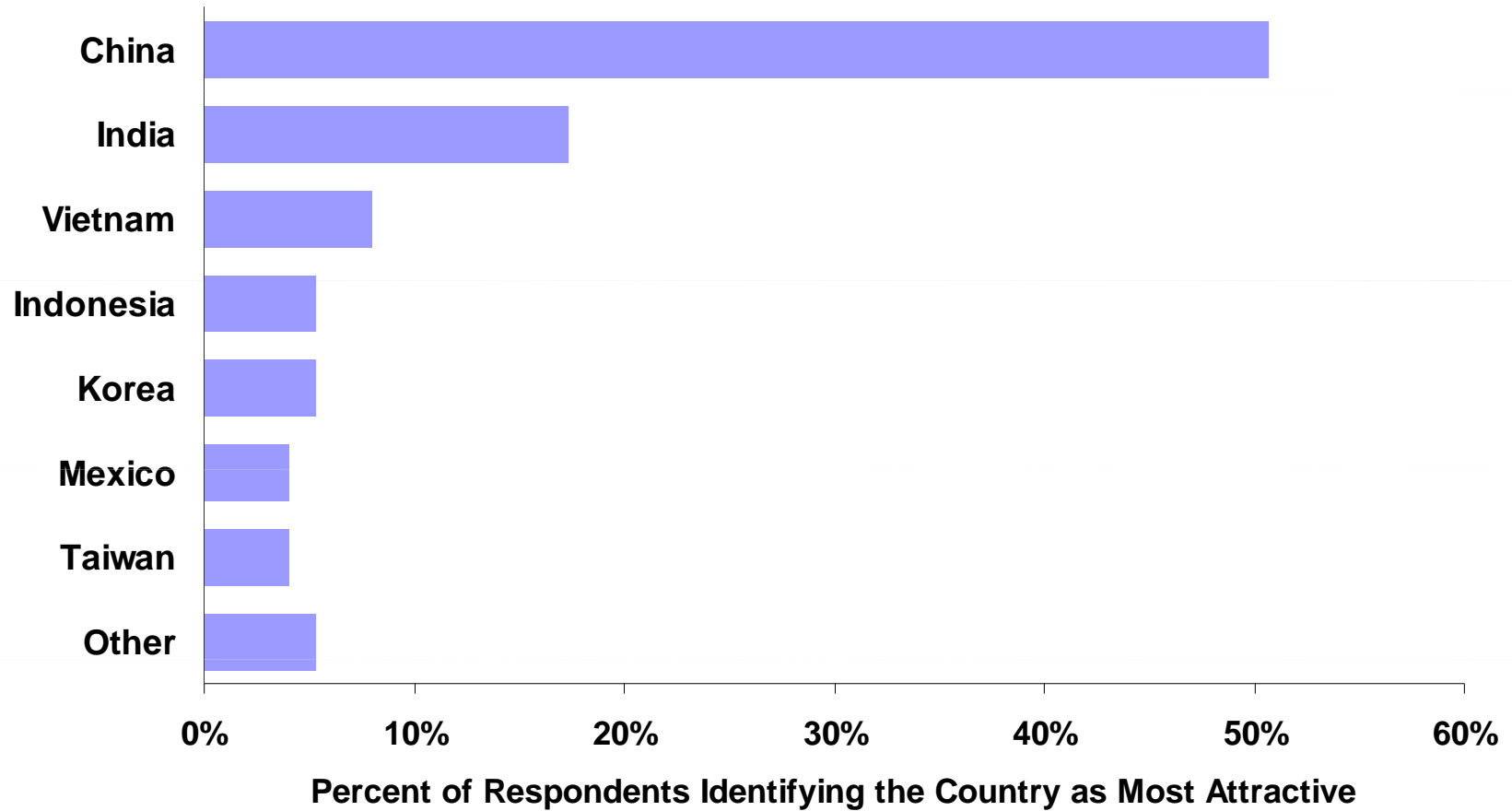


LCCS in 5 Years (2011)

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



China, China, China



Industry in China, by Region

■ Northeast

- Beijing
- Qingdao
- Dalian
- Tianjin

■ Central

- Shanghai
- Nanjing
- Suzhou
- Hangzhou

■ South

- Guangzhou
- Shenzhen
- Hong Kong

Provincial Divisions



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**



Largest Risks

1. Late or no delivery
2. Loss of intellectual property
3. Supplier failure to meet agreed standards
4. Unfavorable economic or currency shifts

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?

Current price \$10/unit, 3-year contract \$8/unit
 Demand projection = 100 units/year
 Sales, profit margin, & supplier costs +/- 10% per year

Right price?

Year 1: +5%, Year 2: + 3%, Year 3: -2%

Best supplier split?

Supplier A \$9/unit, supplier B \$11/unit
 Both supplier's availability = 97% + / - 2%
 1-year testing period to test a new supplier's products



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Figure 1: Key Indicators

Indicator	2006-2008		2008-2010		2010-2012	
Order Leadtime	▲	8.2%	▼	-17.0%	▼	-62.6%
Prices	▼	-4.8%	▲	2.8%	▲	2.3%
Capacity Utilization	▼	-4.2%	▼	-12.5%	▼	-13.1%
Supplier Concentration	Low	0.3%	Low	-0.2%	Med	3.7%

1 Highlights

Demand: Mill roll demand will continue to grow through 2012, in step with robust capital investment in iron and steel production.

- Capital investments will grow at 10-12% per year from 2006-2012.
- Chinese demand will increase at an average of 10% per year over that period.
- Stainless steel and high-growth segments will fuel a demand for various specialized mills.

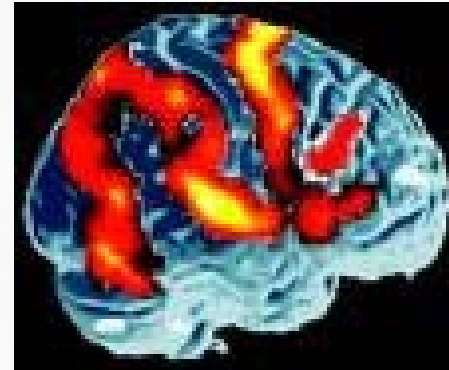
Supply: Suppliers are adding capacity, but the incremental capacity will not alleviate the current capacity shortage. Leadtimes will start to decline in 2007 for work rolls and 2009 for backup rolls.

- ESW, Steinhoff, Davy Roll, and others are adding plants or production capacity at existing plants.
- Chinese suppliers are coming onstream and more are expected over the next five years.
- Productivity improvements will be substantial, at 5% per year, with a compounding effect.

Figure 2: Top Suppliers and Market Shares

Manage Innovation

- Don't sacrifice the innovation engine for low cost!



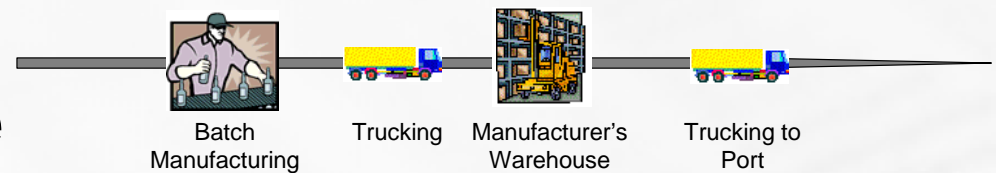
- Establish a supplier split that optimizes the risk-reward trade-off.

Leverage Connections

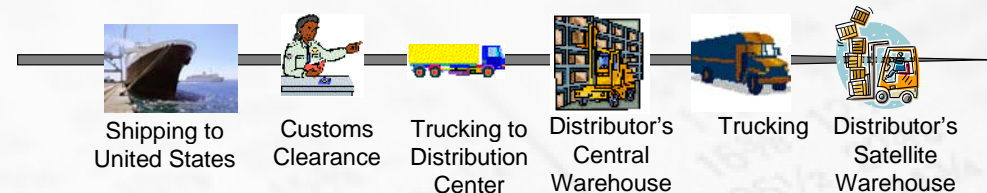
- Use partnerships, mergers, and acquisitions to address the whole supply chain.
- Master the relationship building (“guanxi”) before contracting.

Overseas Supply Chain

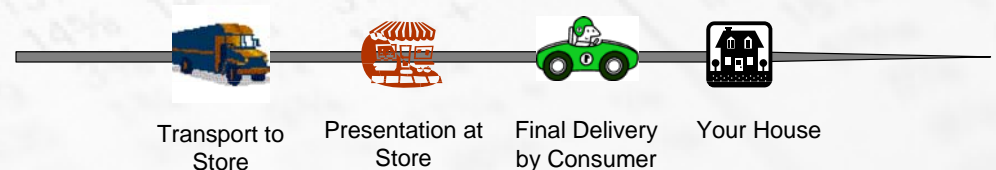
Make-to-Stock Manufacturing



Distribution



Re-Selling



Build the Capability You Need

- **Identify and qualify suppliers**
 - Screen
 - Qualify
 - Check

- **Develop latent capabilities**
 - Train
 - Build
 - Educate



Protect Your Interests

- **Don't assume that the written word is the definitive authority.**



- **Build intellectual property protection into the business process.**

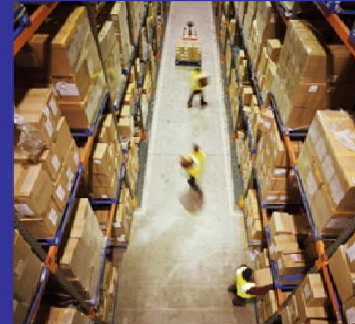
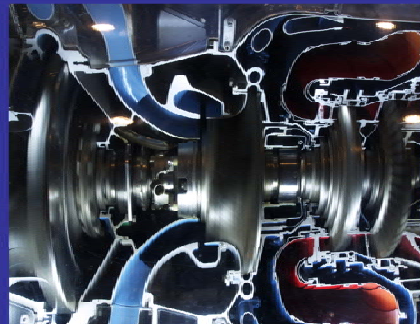
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Boston Strategies International is a global management consulting firm that helps market leaders achieve competitive advantage through supply chain management through:

- **Supply Market Analysis** that helps identify emerging issues that affect their supply chains
- **Supplier Enablement** that facilitates global growth and local content requirements
- **Supply Chain Optimization** that reduces project and life cycle costs



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