

Northeast Supply Chain Conference

Logistics of Global Outsourcing

David Jacoby

Boston Logistics Group, Inc.

9/20/05

Agenda

- **Low-Cost Country Sourcing!**
- **Logistics Implications & Challenges**
- **Successes and Failures**
- **Your Supply Chain**
- **A Model for Growth**



Key Points

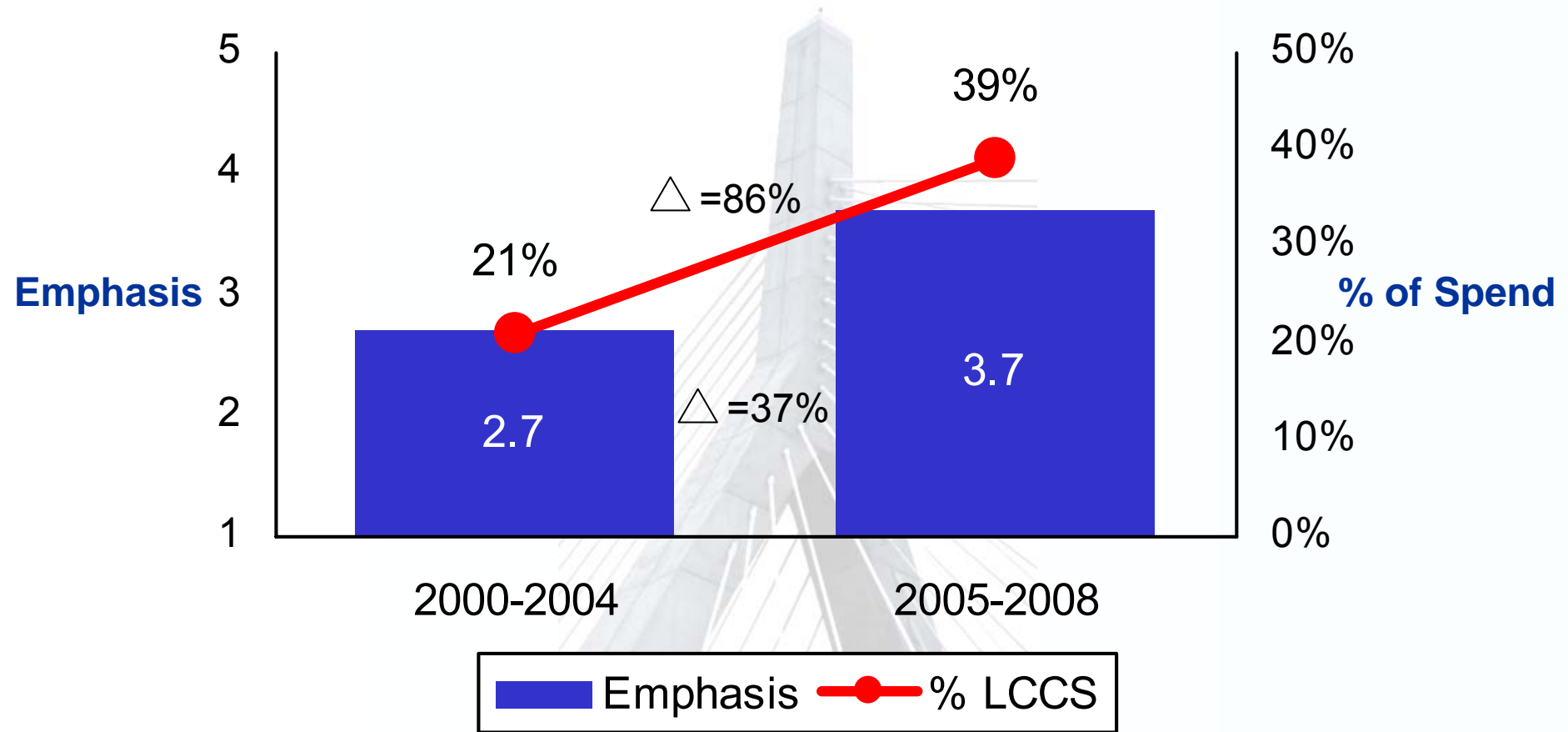
- **LCCS: defining the 21st century**
- **Logistics challenges won't go away**
- **Execution is make-or-break**
- **“Forest for the trees” is natural**
- **5 steps for successful offshore logistics**



Low-Cost Country Sourcing!

Growing Focus on LCC Sourcing

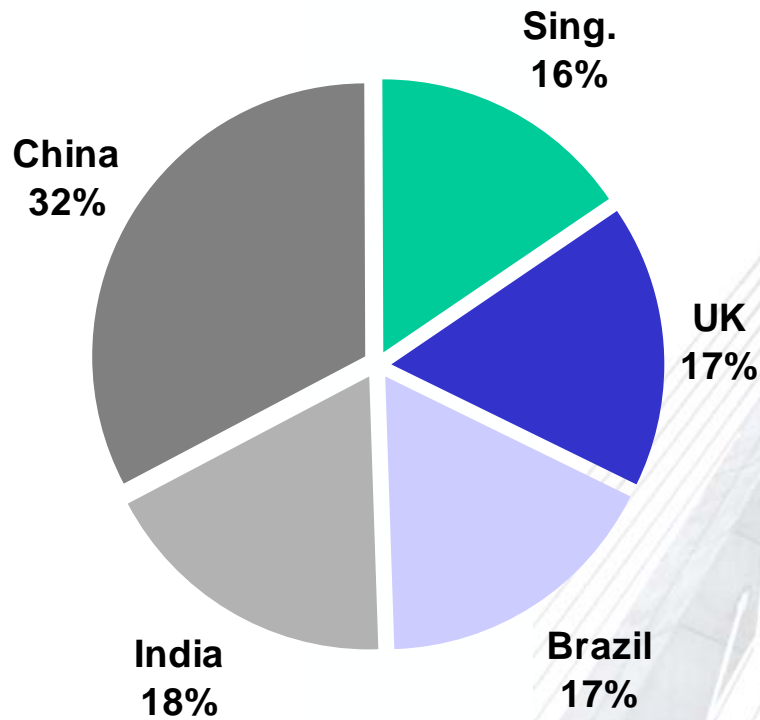
CPO Emphasis on Global Sourcing



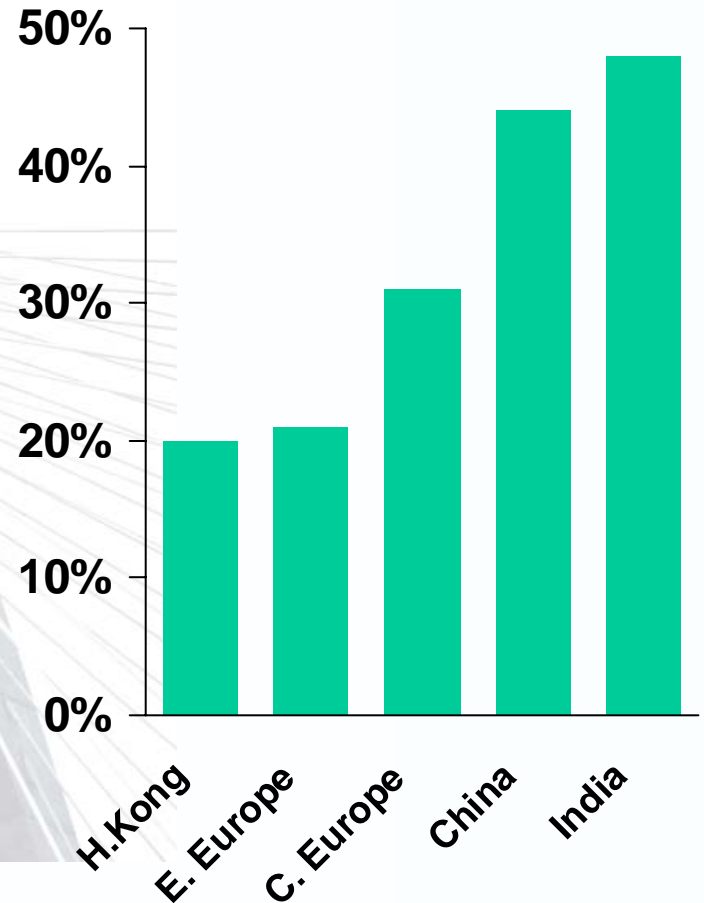
Sources: Boston Logistics Group, Aberdeen

Establishment of IPOs

Location of IPOs Today



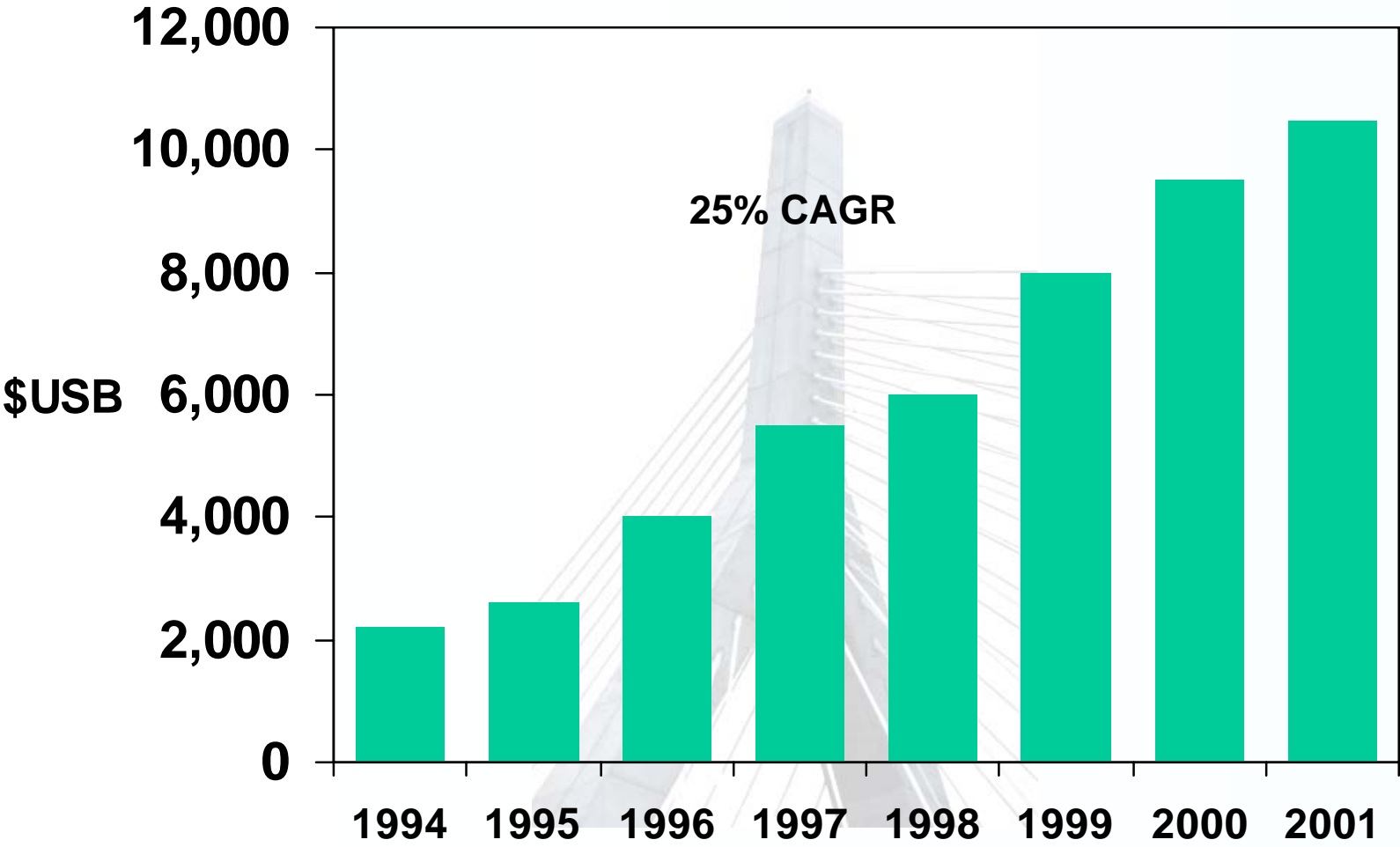
Growth Next 3 Years



Source: Aberdeen Group

More Investment Abroad

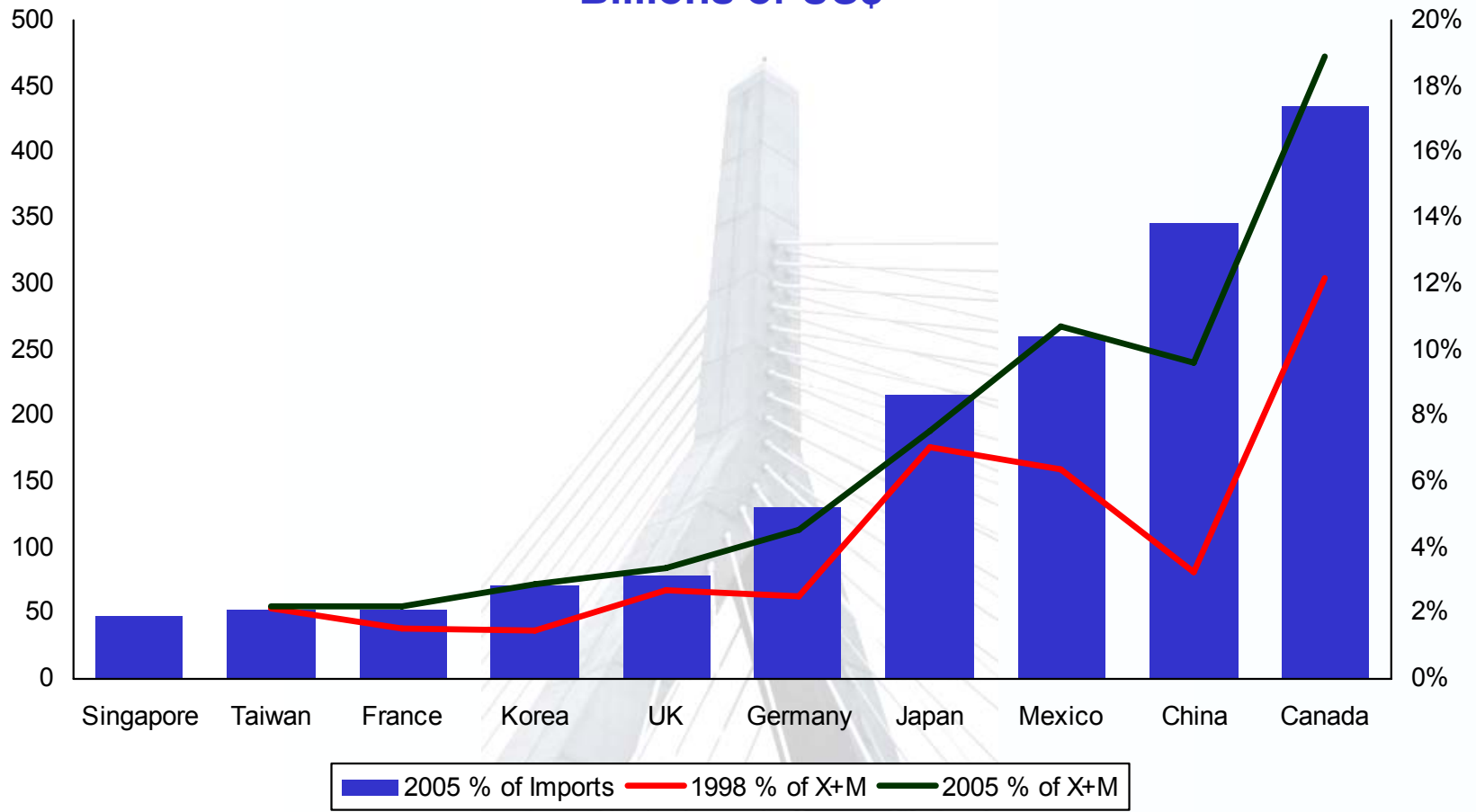
U.S Foreign Direct Investment in China



Source: Bureau of Economic Analysis

China as a Major Trading Partner

Imports and Exports Traded with the United States
Billions of US\$



Source: U.S. Bureau of the Census

Logistics Implications and Challenges

Foreign Business Environment

Issues

Varying degrees of familiarity with the host country

- Culture
- Language
- Politics

Potential Complications

- Divergent interpretations and expectations
- Legal questions
- Ethical standards and expectations
- Regulatory bottlenecks
- Customs formalities
- Delays



Extended, Multi-Step Supply Chains

Issues

**More steps to supply
chain planning
+
Sub-standard
logistics
infrastructure**

Potential Complications

- **Customs clearance mishaps**
- **Documentation errors**
- **Quality control in the pipeline**
- **Inventory in the wrong place at the wrong time**
- **Late funds, cash flow issues**



Low Information Quality

Issues

Poor data quality
+
Limited technology
+
Multiple service provider relationships



Potential Complications

- **Inadequate coordination of plans**
- **Delays**
- **Unintended reverse flows**
- **Wasted effort and time**
- **Excess buffer inventory**
- **Product unavailability**

Offshore Infrastructure Constraints

- **Congestion**
- **Inadequate highway network**
- **Substandard technology**
- **High licensing costs**
- **Tolls**
- **Safety concerns**
- **Security risks**
- **Lack of appropriate vehicles & equipment**
- **Regulation and protectionist territories**

US Freight Volume Growth

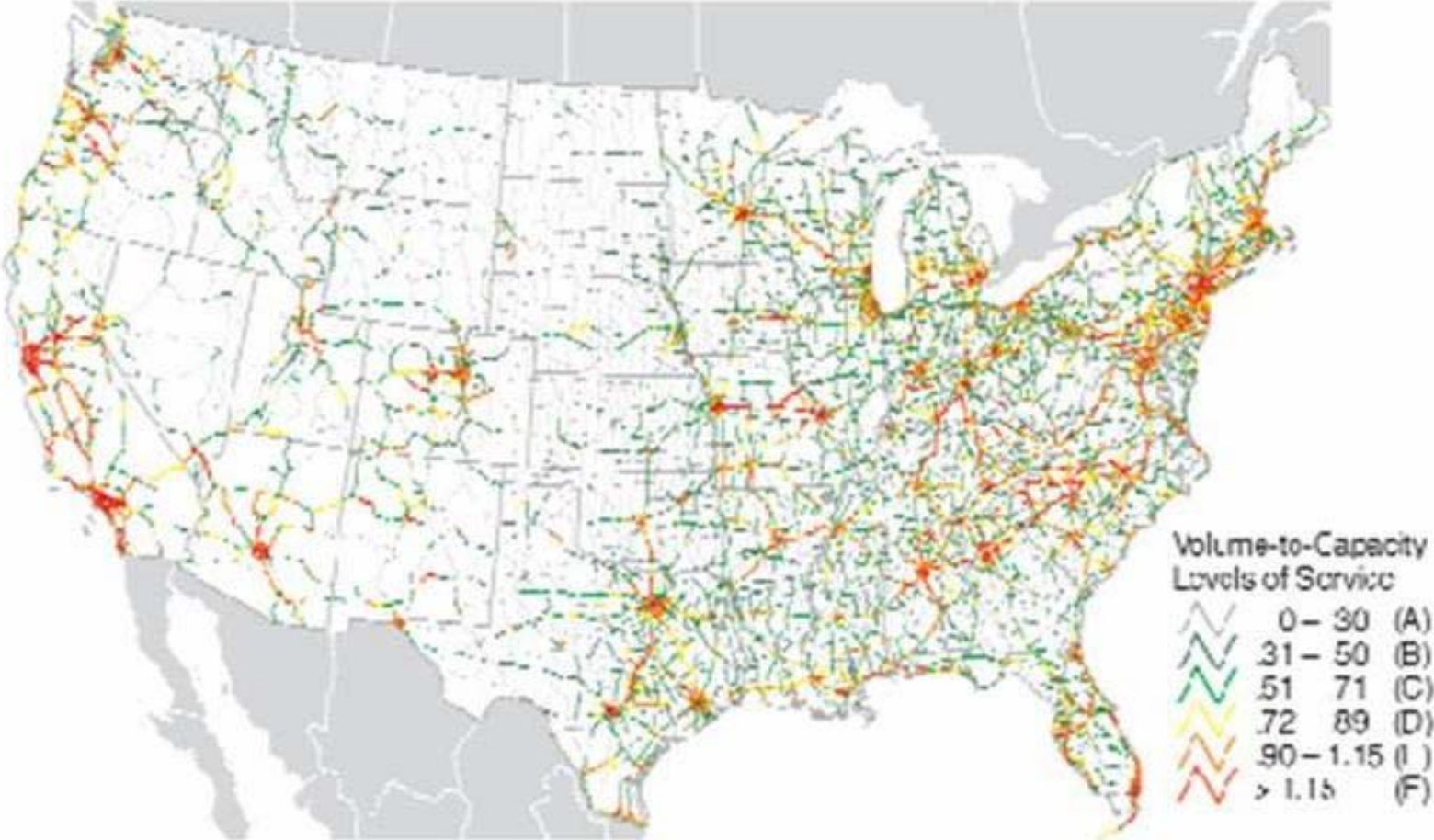
Projected Freight Volume Growth through 2020

	Tons (2000) (Billions)	Tons (2020) (Billions)	Change	CAGR
Truck	2,639	4,174	58%	2.32%
<500 miles	1,241	2,046	65%	2.53%
>500 miles	1,398	2,128	52%	2.12%
Rail	1,239	1,821	47%	1.94%
Water	539	617	14%	0.68%
Air	9	27	182%	5.33%
Total	4,427	6,638	50%	2.05%

Source: Cambridge Systematics, Reebie Associates, US DOT

US Infrastructure Constraints: Road

Highway Congestion Points, 2020



Source: Cambridge Systematics/US DOT

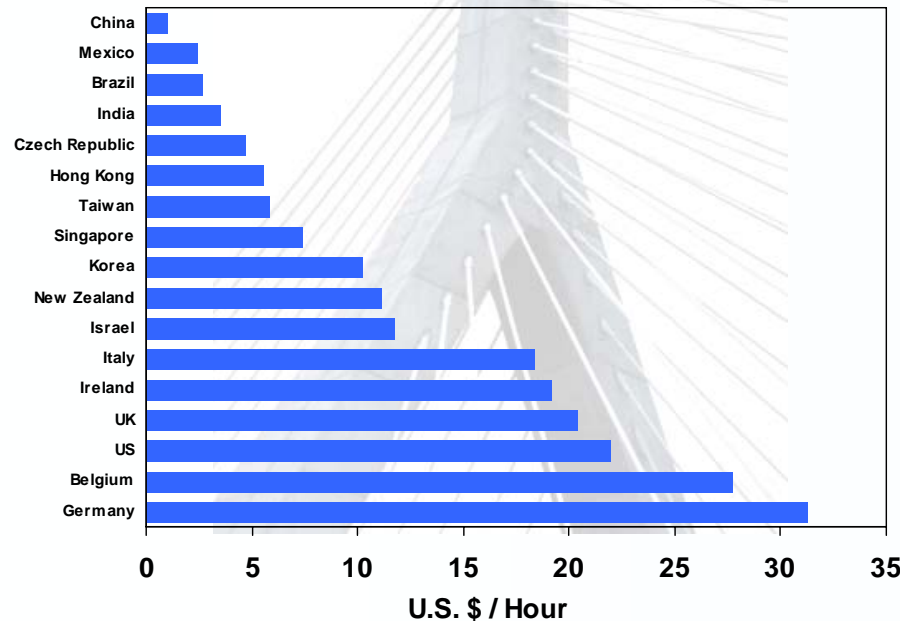
Overall – Top Concerns

- **Long transit times & order leadtimes (20-60 days)**
- **Not enough people who know the local environment**
- **Frustration with government and regulatory issues**
- **Customs documentation requirements and delays**
- **Poor communications infrastructure**

Looking for a Golden Bullet

- **Is there a “low-maintenance” country?**
 - Brazil (3x): “C” risk, abundant industry
 - Czech (5x): “B” risk, skills base, proximity to Europe
 - Malaysia (7x): “A” risk, open, strong industrial base

Hourly Labor Costs by Country



Sources: Economist
Intelligence Unit, Bureau
of Labor Statistics,
Computerworld

Looking for a Golden Bullet (cont'd)

- **Locate facilities and suppliers closer?**
 - May reduce supply chain complexity
 - Doesn't solve cultural or information problems
- **Outsource entire supply chain to global 4PL?**
 - Offloads the problem
 - Possibly expensive, little control
- **Form a network of partners?**
 - Covers all the bases
 - Takes time

No Easy Answer

- **Complex, inter-related decisions**
 - Production ↔ logistics ↔ mode ↔ service ↔ provider
- **Moving targets**
 - Economics and exchange rates
 - Transport and handling rates
 - Service offerings and reliability
 - Shipping volumes
- **Lack of information, limited resources**

Successes and Failures

“Bulkco”

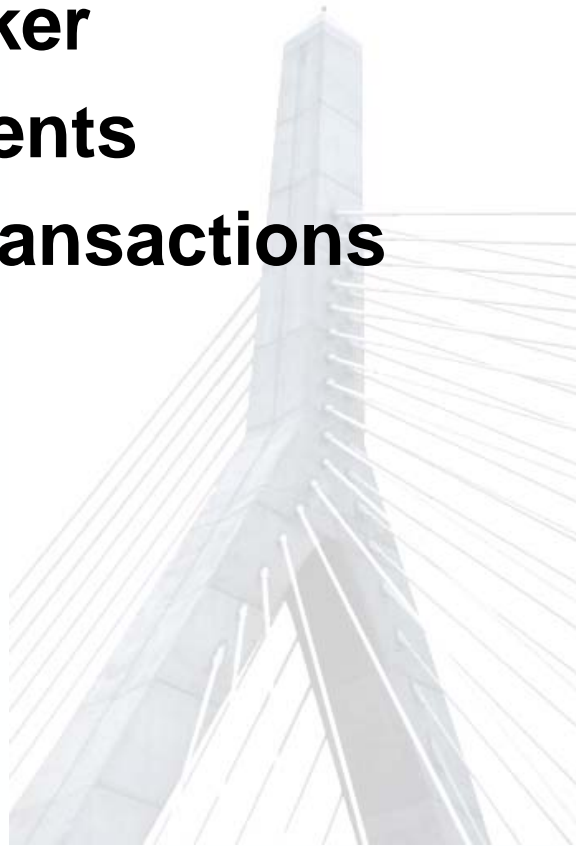
- **\$1 billion**
- **Bulk materials with successive stages of refinement**
- **Raw material sources in Asia, South America, and Eastern Europe**
- **Bulk shipload and rail carload transport**
- **Rising energy, transportation, and raw materials costs**

Unresolved Network Issues

- **Source: widely disparate raw material cost left open multiple source options worldwide**
- **Foreign port: multiple options for each candidate source**
- **Domestic port: West Coast MLB vs. Gulf Coast all-water options**
- **Degree of processing: potential for intermediate processing undetermined**
- **Final destination: two plants possible**

Strong-Armed Middlemen

- **Exclusive, licensed Chinese distributor**
- **Material broker**
- **Customs agents**
- **Few, large transactions**



Critical Lack of Information

- Unpredictable sailing dates
- No in-transit visibility
- Large buffers of in-process inventory
- Stock-outs



“ConsumerInc”

- **Consumer products company**
- **Progressively declining growth**
- **Small, high-value product**
- **Distribution to many retail outlets and their DCs**
- **LCL and small package transport**
- **Shift of manufacturing operations to Asia**

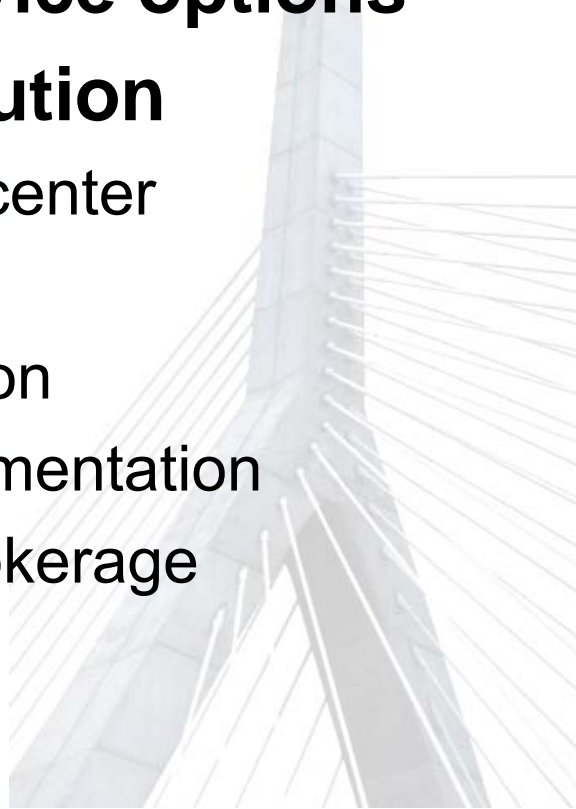
Supply Chain Strategy

- **Redundant flows identified**
- **Network options evaluated using a multi-echelon inventory management software**
- **Streamlined global network established**



3PL Partnering

- **Partnership objective**
- **Multiple service options**
- **Bundled solution**
 - Distribution center
 - Packaging
 - Transportation
 - Export documentation
 - Customs brokerage



Comparative Experiences

KSF	BulkCo	ConsumerCo
International Experience	Internal, limited to 1 individual	In-house & consulting support
Network Expertise	Executive committees made critical decisions on the fly	Software tool
Distribution Assets	Distributed among multiple transactional partners	Control of DC assets via 3PL contract
Information Management	None	Visibility technology provider
Trade Finance Capability	Complex internal transactions	Trade finance partner

Your Supply Chain

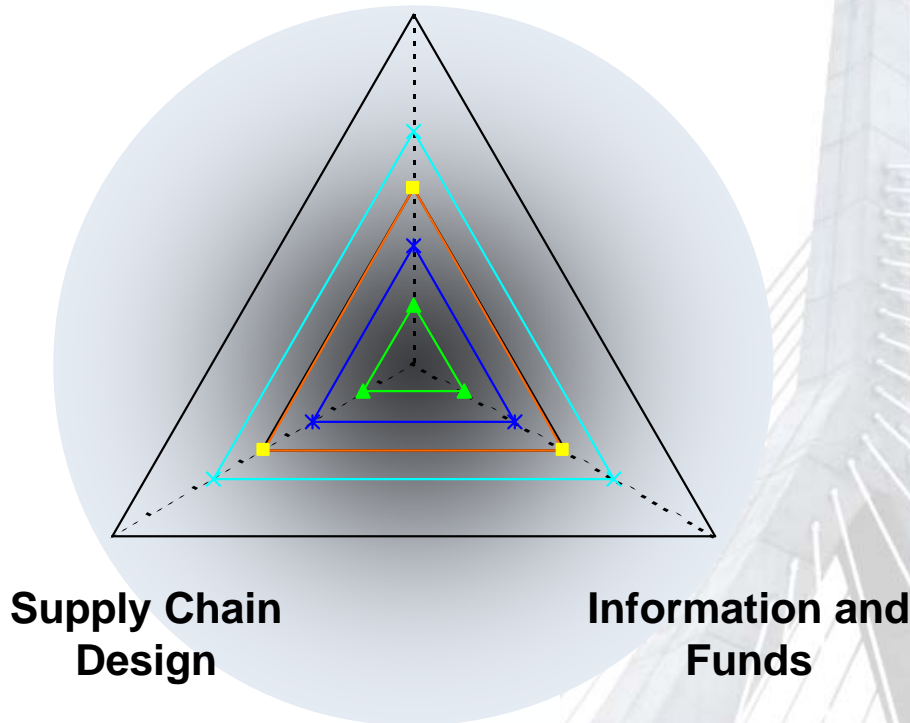
(Exercise)

A Model for Growth

Building Partnerships

Gaps to Fill

Culture, Local Knowledge



- Tap international experience
- Leverage network expertise
- Establish a primary point of contact
- Ensure pipeline visibility
- Embed ongoing economic intelligence

International Experience

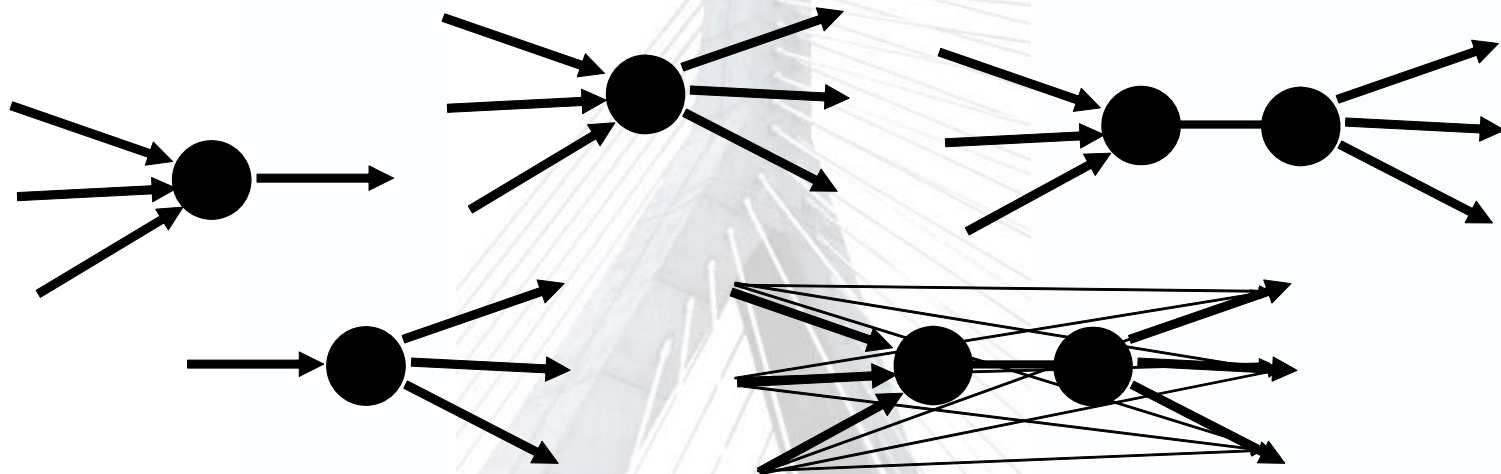
- **International business**
- **Local market knowledge**
- **Cultural facility**
- **Language capability**

**Consulting firms,
benchmarking groups,
full-time hires**

Network Expertise

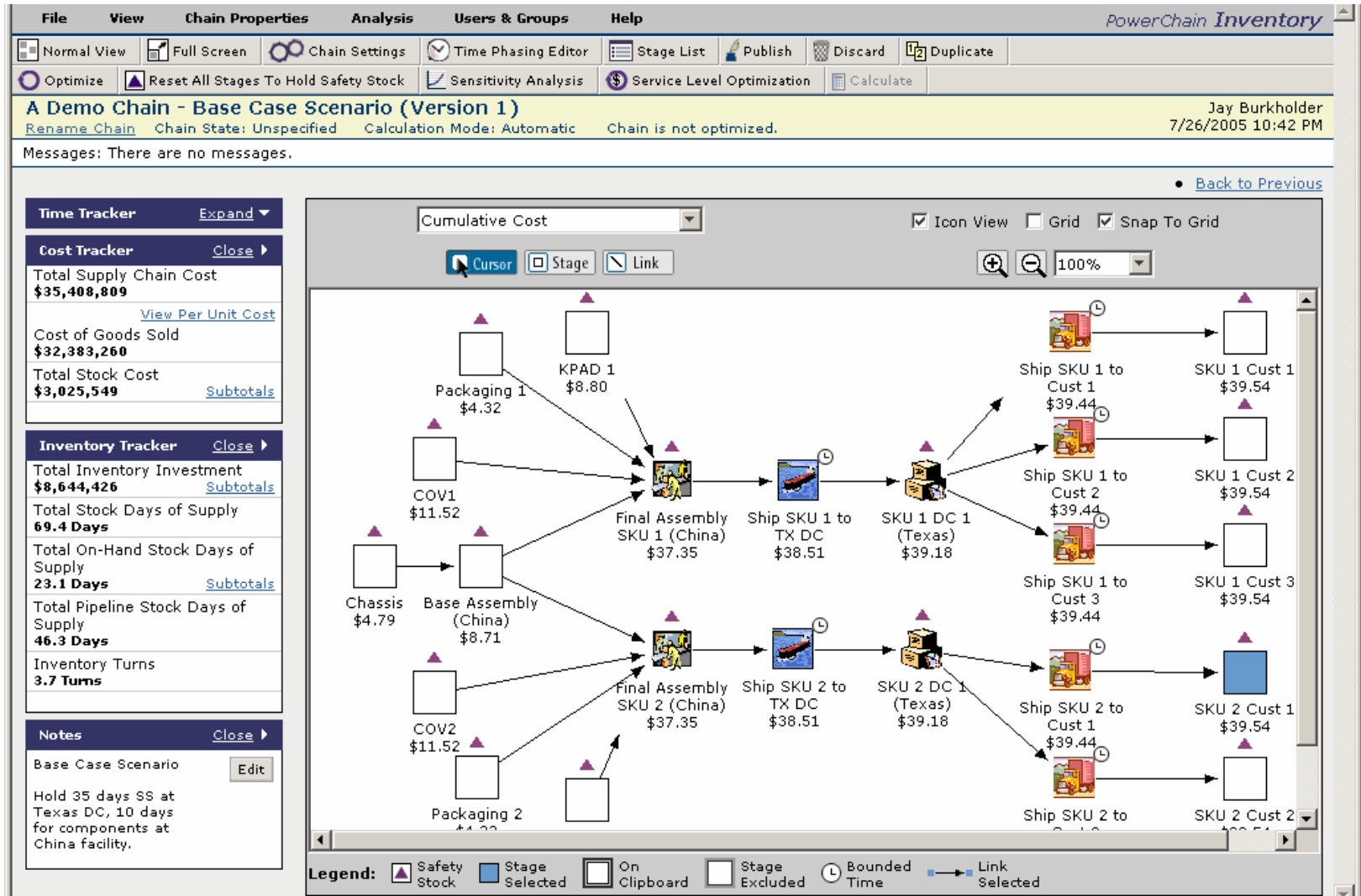
- Number, location of facilities
- Stocking policies and levels
- Transportation/inventory trade-offs

Some Alternative Configurations



Software companies, consultants, 3PLs

Network Expertise



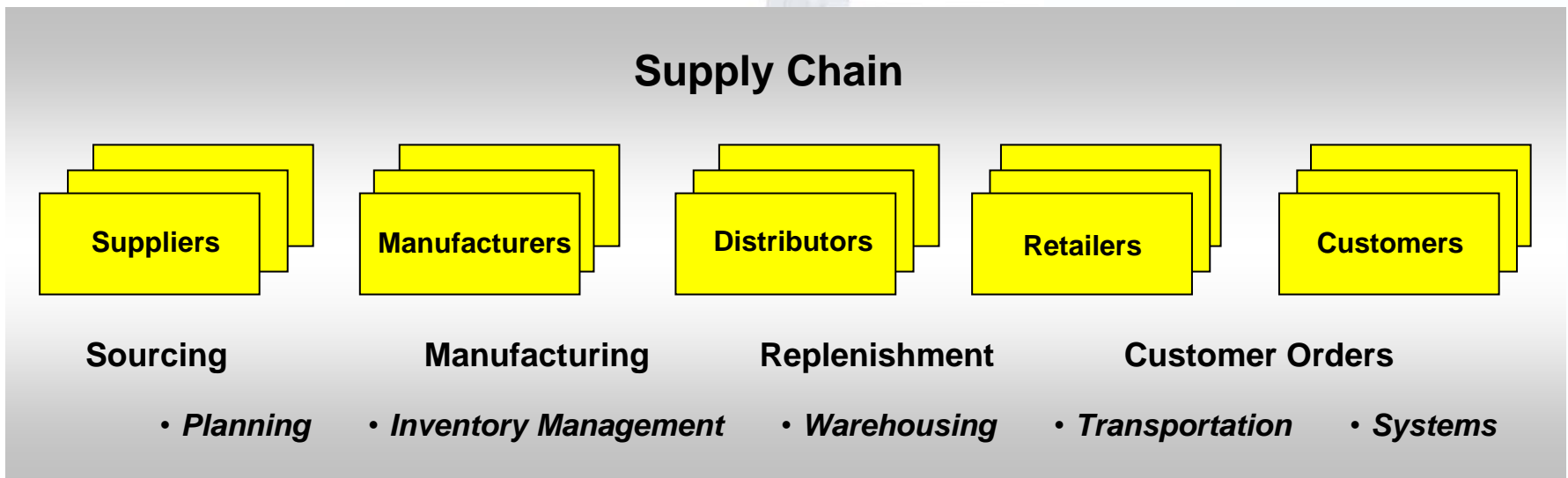
Primary Point of Contact

- **Controls goods in the pipeline**
- **Access to real-time information**
- **Authority to act on your behalf**
- **Knows goals and objectives**
- **Measured to KPIs**

3PLs, 4PLs, forwarders

Pipeline Visibility

- DC inventory levels
- Seasonal peaks
- Promotions



Systems integrators, 4PLs, specialists

Dynamic Economic Intelligence

- **Economic outlook**
- **Cost and risk profile of the host country**
- **Governmental regulations**
- **Rates and capacity trends**
- **Implications for the:**
 - Supply chain strategy
 - Network
 - Providers

Economists, consultants, specialized publications

Thank You!

- 2005 Strategic Sourcing study
- Links, articles
- Copy of presentation



David Jacoby
President

20 Donizetti Street
Wellesley, MA 02482

Phone: (781) 283-5788
djacoby@bostonlogistics.com