



Freese & Associates, Inc.



and

The Cleveland Roundtable
Council of Supply Chain
Management Professionals

Present

Supply Chain Management in Turbulent Times

DANTE (LOCKEERS)

**8001 ROCKSIDE ROAD
VALLEY VIEW, OH**

May 14, 2009



Agenda

- **History**
The Perfect Storm
- **Definitions**
- **The State of Logistics**
- **Major Indices**
Economic & Markets
- **SCM Trends**
- **Economic Direction**
& Impacts
- **Financial Impacts**
of SCM
- **Keys to the Future**
- **Q & A**

Supply Chain History



**The book of
Genesis
recorded
Joseph
was the 1st
“Supply Chain
Manager”
in 1700 B.C.**

The Perfect Storm



What We've Seen

Gasoline prices have risen lowered
And were they stop no one knows



What About the Market?

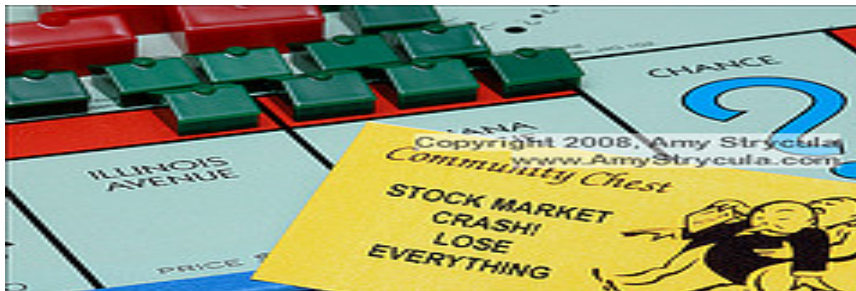
What Goes Up Can Also Go Down



2007



1938



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Supply Chain Management



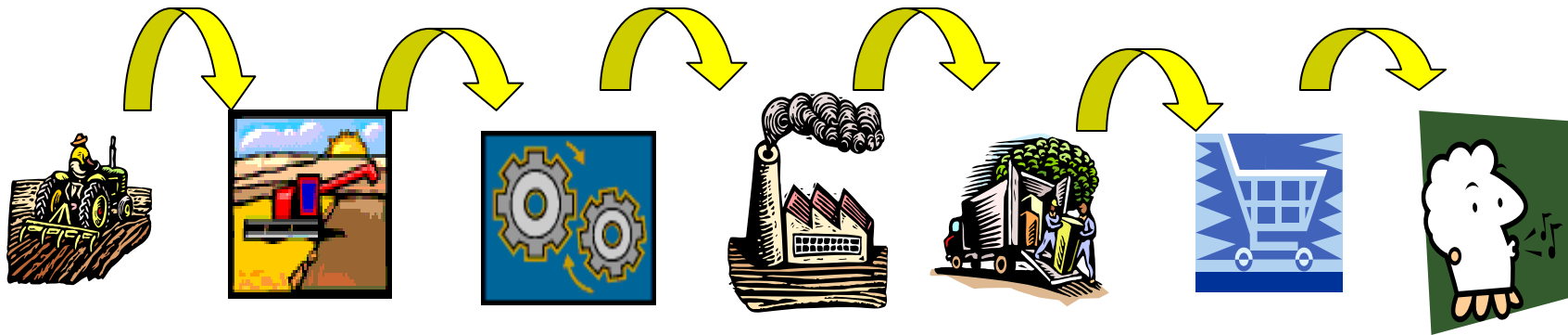


Supply Chain Management

“Is the integration of business processes from original suppliers through end-users that provides products, services and information that add value for customers”



Suppliers' Supplier To Customers' Customer





Global Comparison of Logistics Expenditures

Economy

Higher Output--GDP

Better use of resources

Multi-use Infrastructure

Businesses

Market Access

Market Integration

Cost Efficiency

Consumers

More Goods and Services

Wider Availability

Lower Prices/Income

U.S.

10.1% GDP

Asia 13-20% GDP

China 19-22% GDP

Europe 12-14% GDP

India 17% GDP

Japan 11% GDP

Mexico 14% GDP



U.S. Logistics Cost as Percent of GDP in 2007

Carrying Costs - \$ 2.026 Trillion All Business Inventory \$ Billions

Interest	103
Taxes, Obsolescence, Depreciation, Insurance	273
Warehousing	<u>111</u>

Subtotal 487

Transportation Costs

Motor Carriers:	
Truck - Intercity	455
Truck - Local	<u>216</u>

Subtotal 671

Other Carriers:

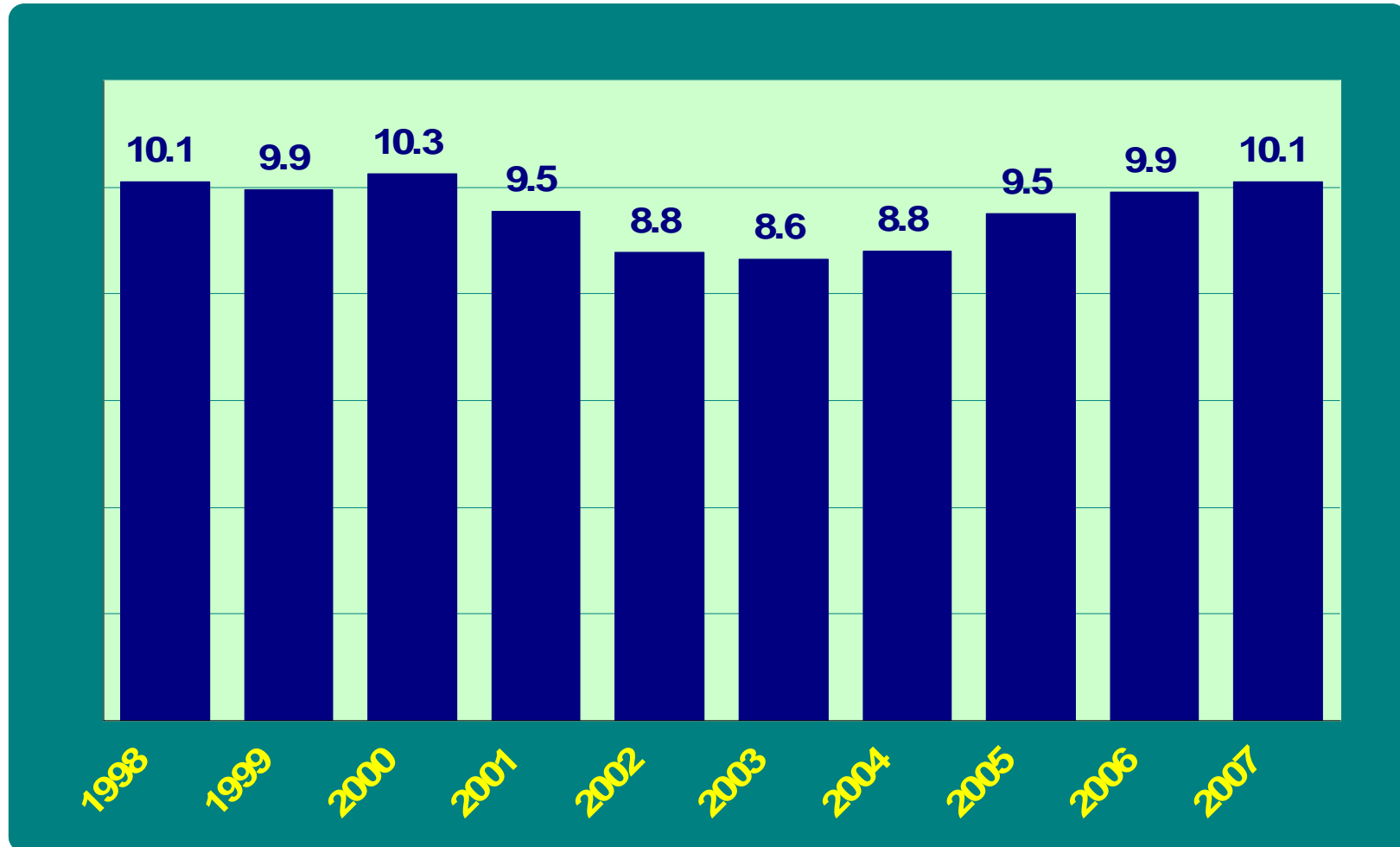
Railroads	58
Water (International 33 Domestic 5)	38
Oil Pipelines	10
Air (International 16 Domestic 25)	41
Forwarders	<u>30</u>

Subtotal 177

Shipper Related Costs	8
Logistics Administration	<u>54</u>

TOTAL LOGISTICS COST 1,397

Cost As A Percent of GDP

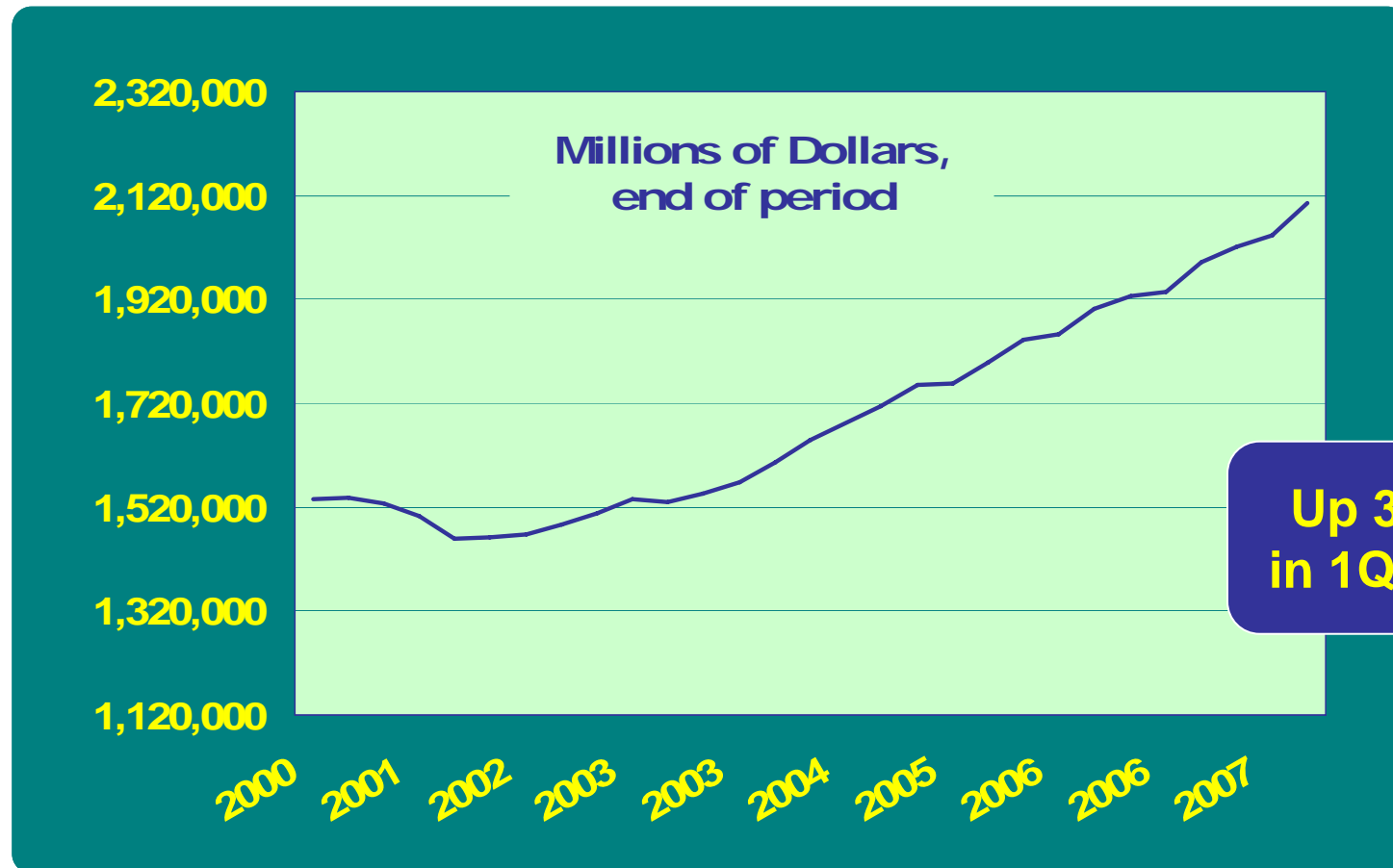




The Changing Costs of Logistics

- From 2000/2004 Logistics Costs Declined
 - Low Energy Costs
 - Deregulation
 - Increased Information Technology
- Starting in 2005 Logistics Costs Increased
 - Rising Energy Costs
 - Rising Inventories
 - Declining Transportation Capacity

Total Business Inventories Rose 8.7 Percent in 2007

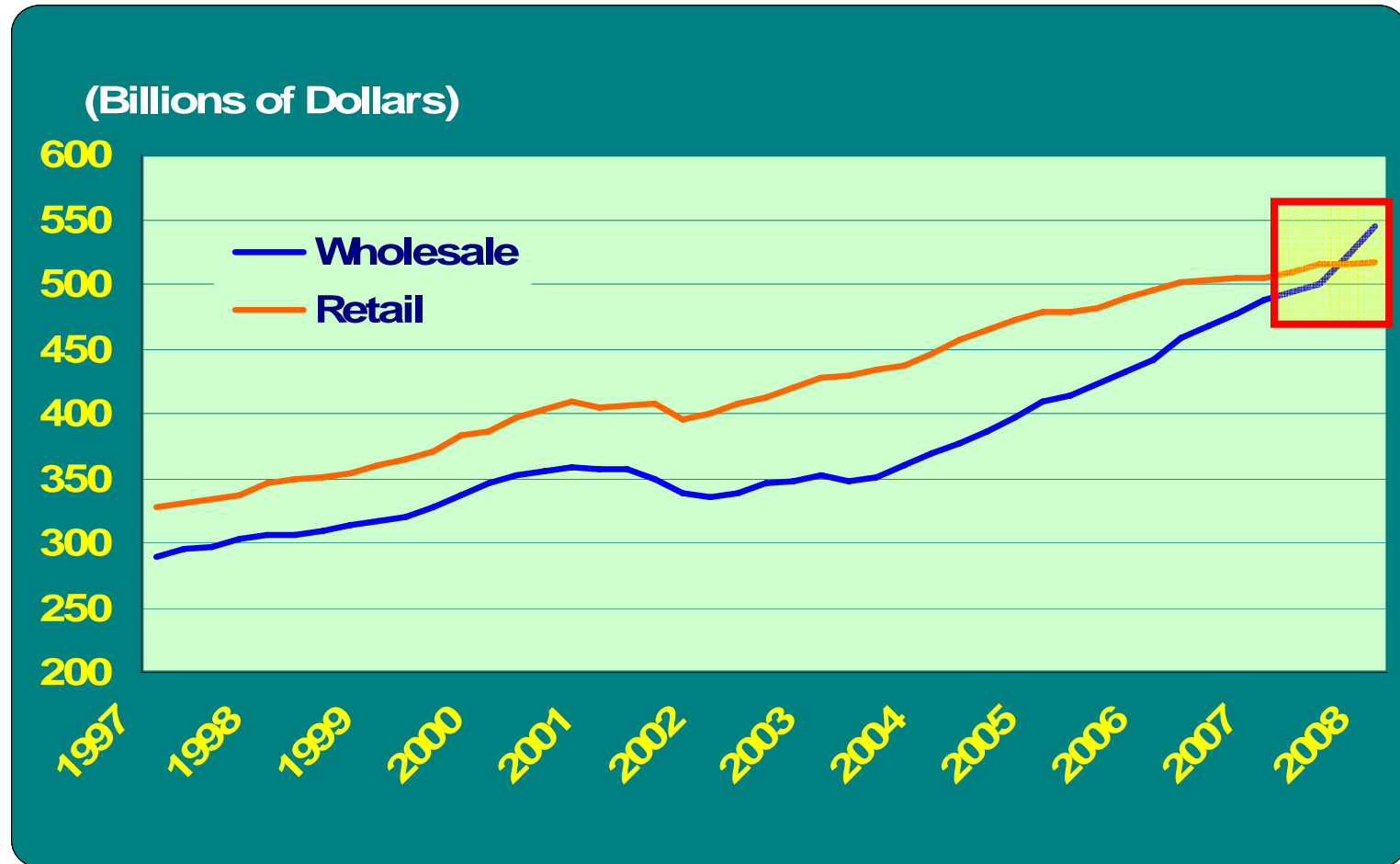


Source: U.S. Department of Commerce, Census Bureau
14 May 2009

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Wholesale Vs. Retail Inventories



Source: U.S. Department of Commerce, Bureau of Economic Analysis

14 May 2009



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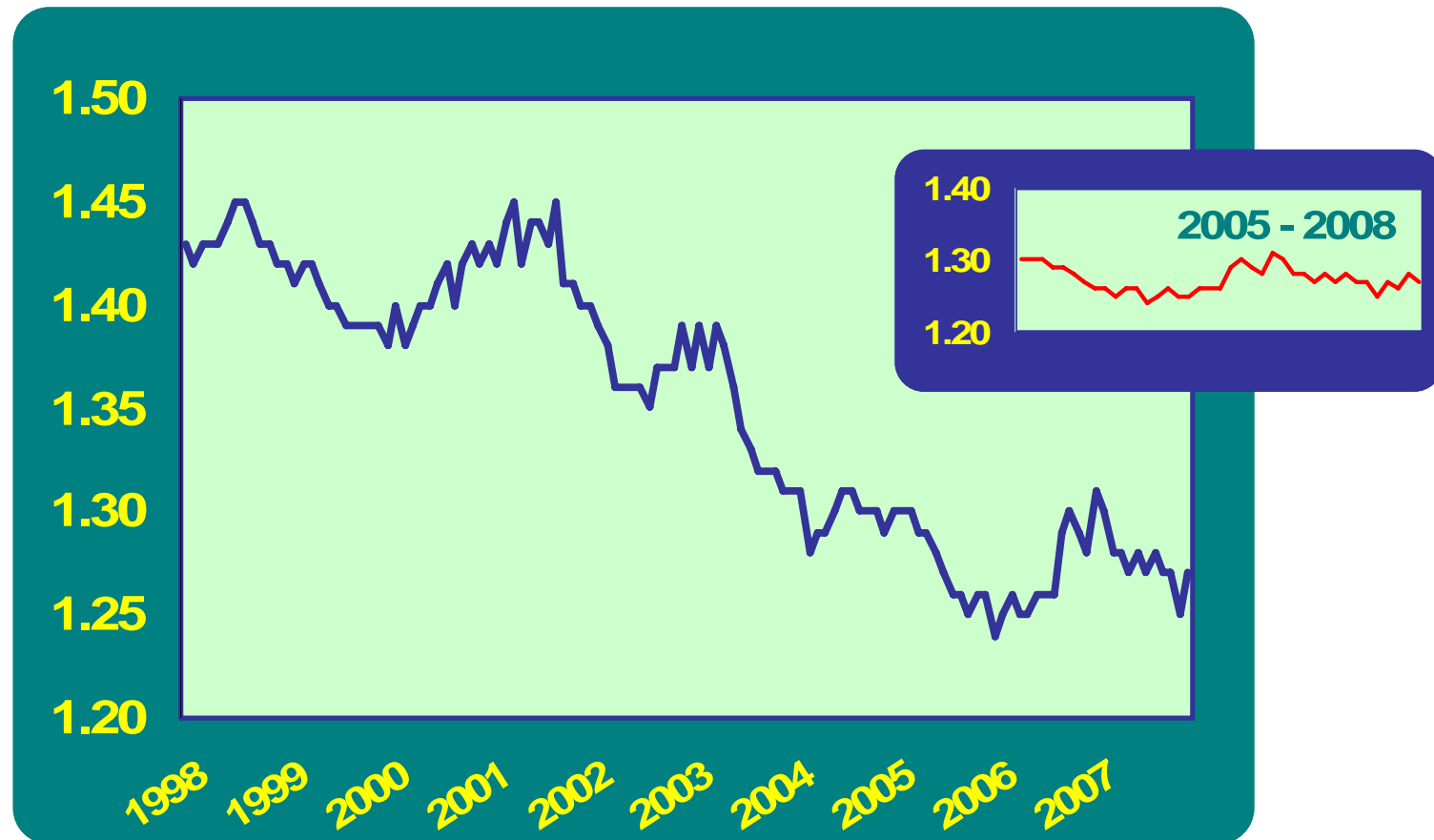
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Inventory to Sales Ratio

Slow Rate of Decline

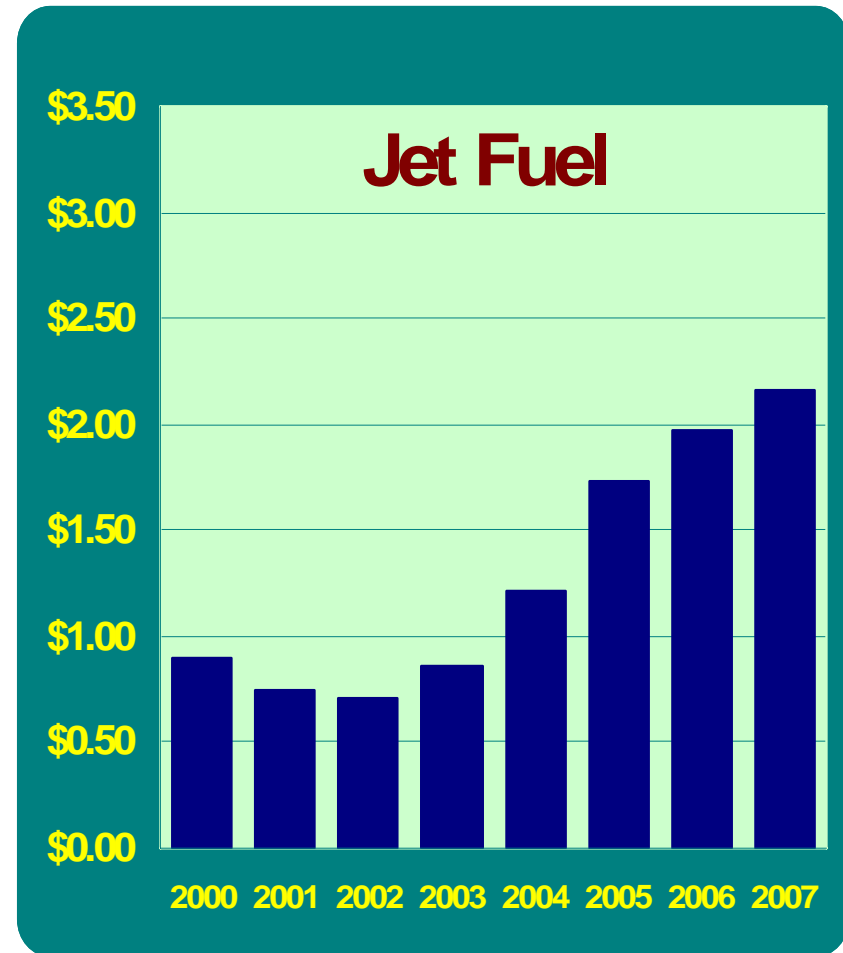
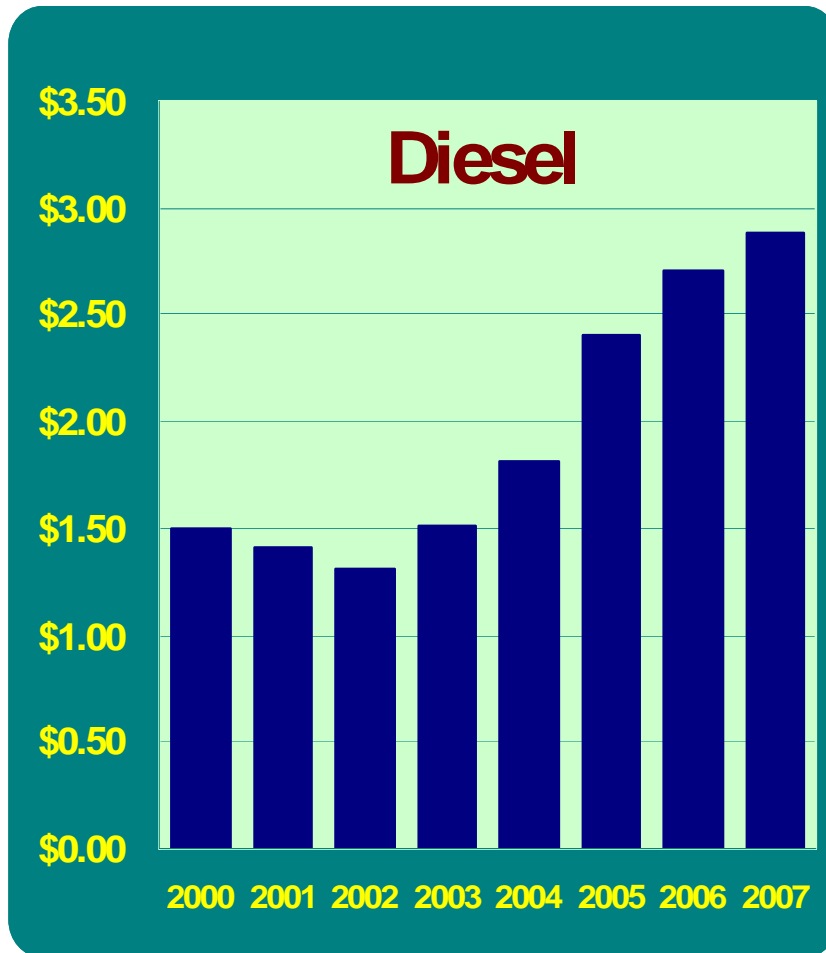


Source: U.S. Department of Commerce, Census Bureau

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Substantially Higher Fuel Prices



Fuel Efficiency

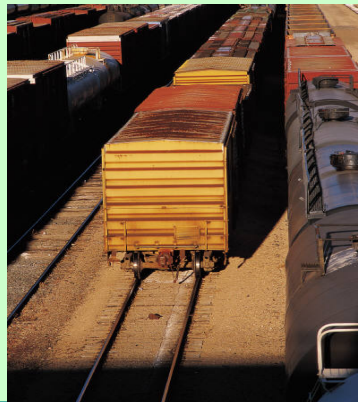
Ton-Miles Per Gallon

576



Barge

413



Railroad

155



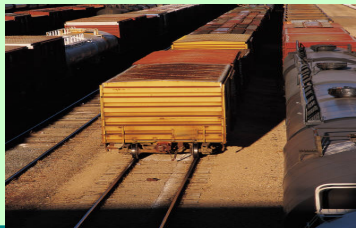
Truck

Source: Texas Transportation Institute Study, Nov. 2007

Mode Utilization



Barge

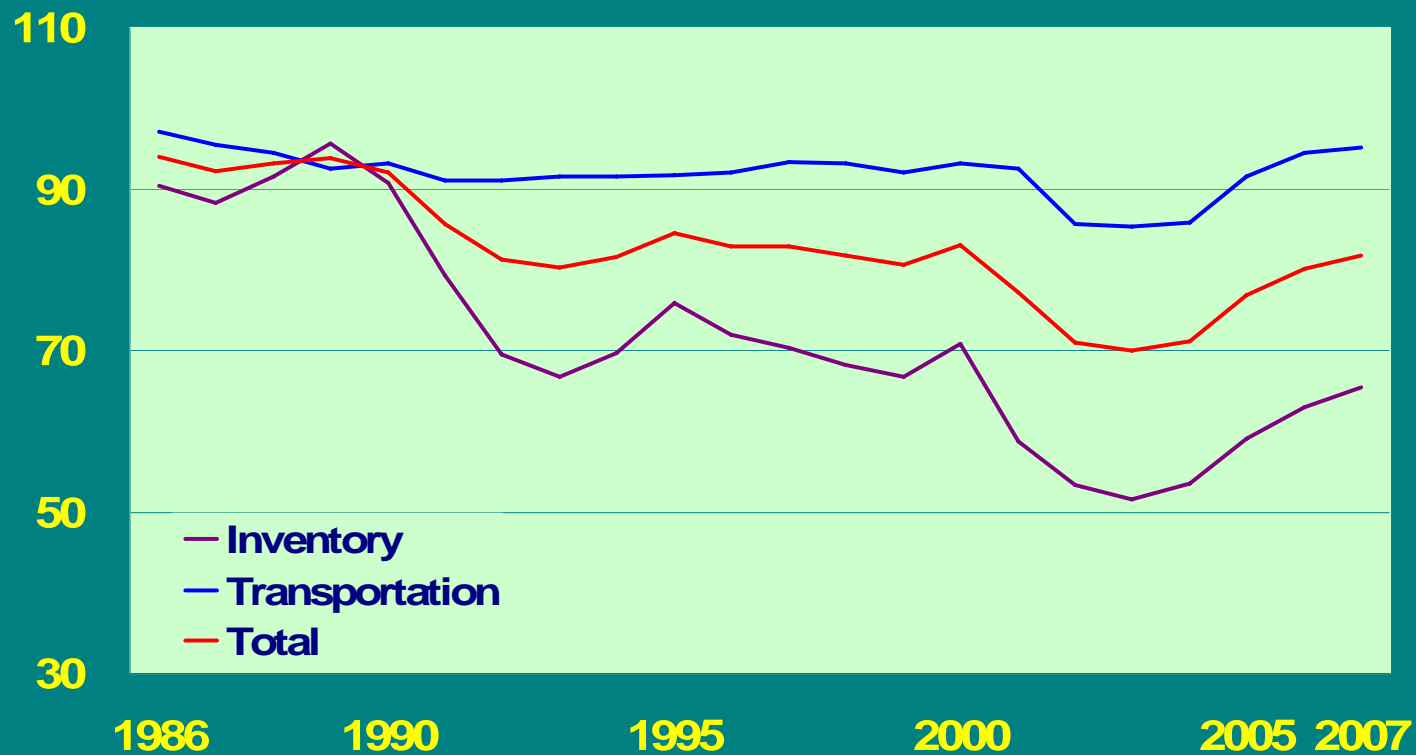


Railroad

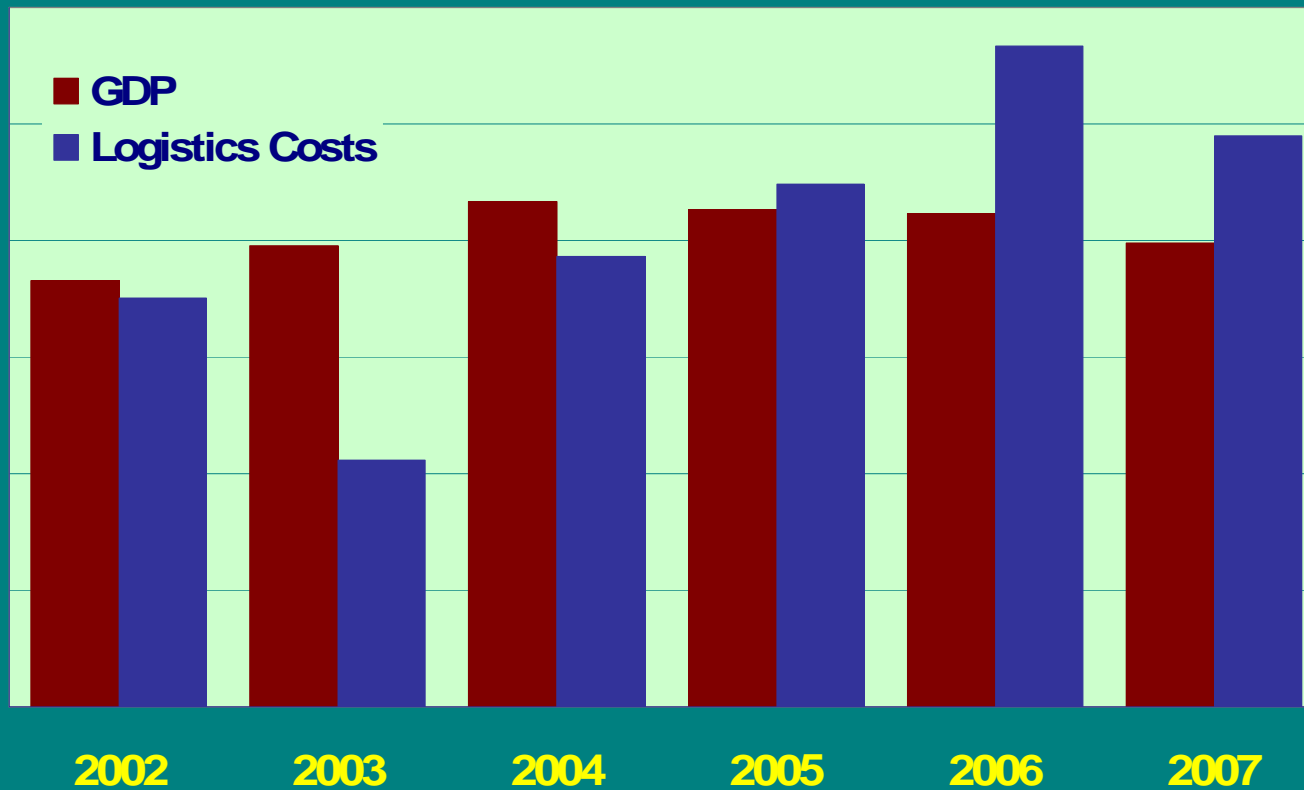


Truck

Index of Logistics Costs as a % of GDP Over 20 Years

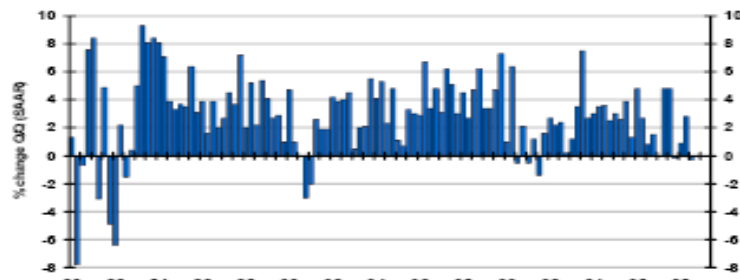


GDP and Logistics Cost



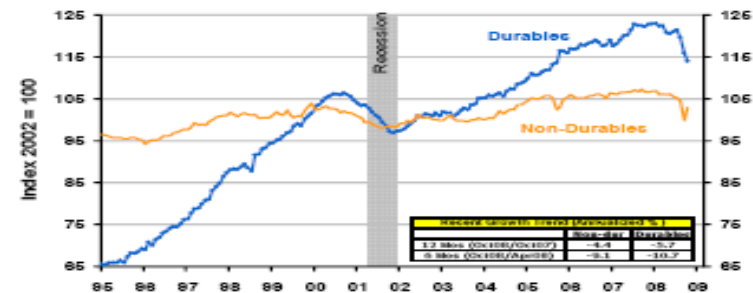
Major Economic Indices

U.S. Real GDP Growth



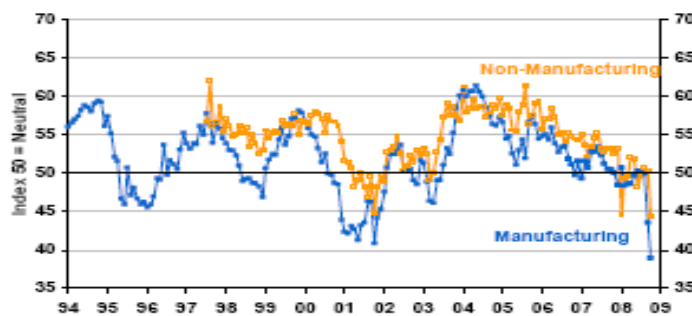
Source: U.S. Bureau of Economic Analysis
Data through 2008q3

Manufacturing Industrial Production Indexes
Non-durables and Durables Industries



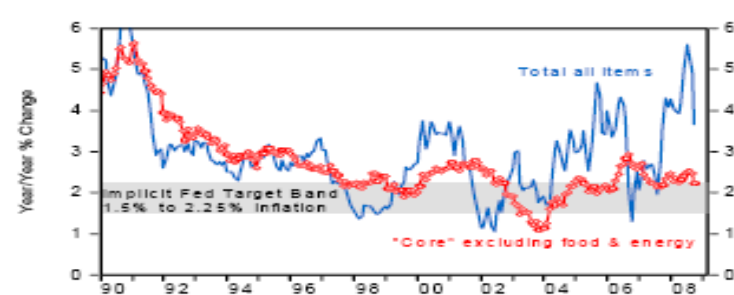
Source: Federal Reserve Board
Data through October 2009

ISM Purchasing Managers' Indexes



Source: ISM Report on Business
Data through October 2009

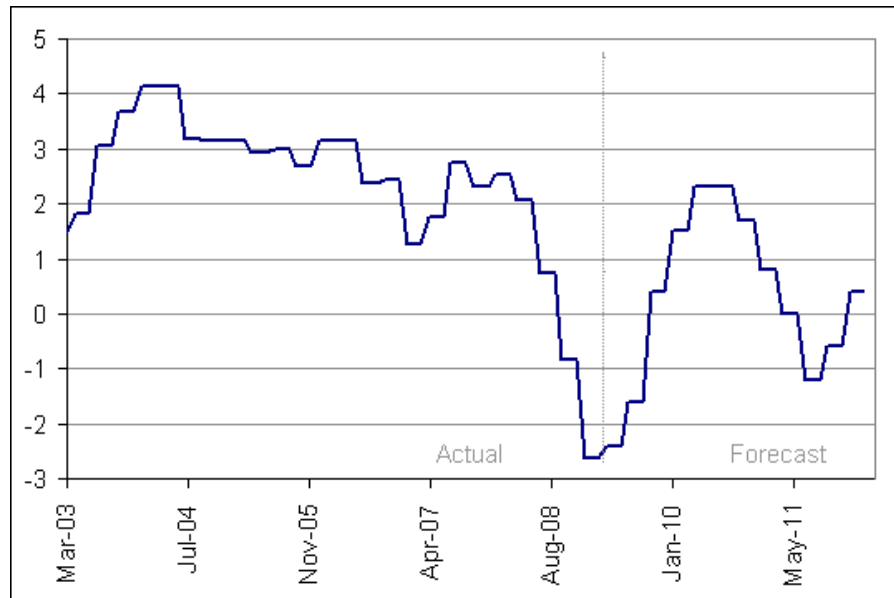
Consumer Price Index (% change y/y)
total and "core" excluding food & energy



Source: U.S. Bureau of Labor Statistics
Data through October 2009

Current Indicators

GDP Growth



Financial Forecast Center, LLC May 13, 2009

Economic Indicators

May 12, 2009	
Indicator	Value
Inflation %	-0.45
GDP Growth %	-6.29
Unemployment %	8.90
Gold \$/ Once	917.00
Oil \$/ Barrel	58.85
Prime Rate %	3.25



ISM Index

MANUFACTURING AT A GLANCE

Apr-09

Index	April	March	Change	Direction	Rate of Change	Trend*(Months)
PMI	40.1	36.3	3.8	Down	Slower	15
New Orders	47.2	41.2	6	Down	Slower	17
Inventories	33.6	32.2	1.4	Down	Slower	36
Backlog of Orders	40.5	35.5	5	Down	Slower	12
Exports	44	39	5	Down	Slower	7
Imports	42	33	9	Down	Slower	15
OVERALL ECONOMY				Down	Slower	7
Manufacturing Sector				Down	Slower	15

Institute For Supply Management May 2009

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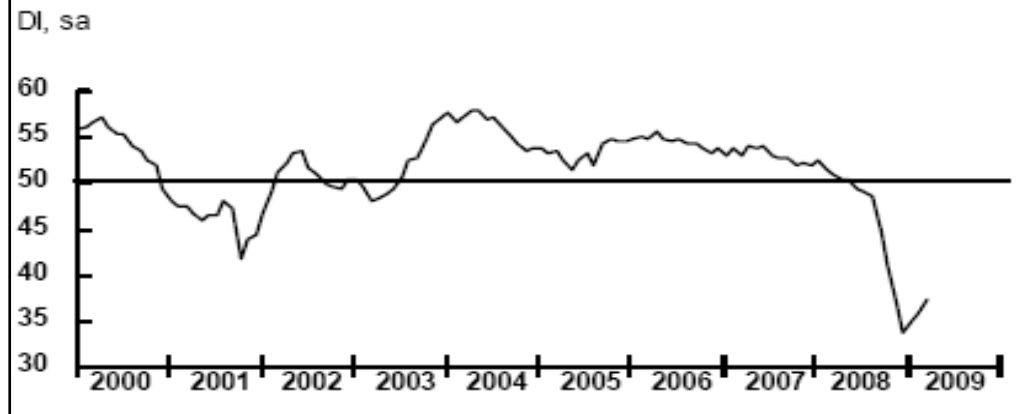
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Current PMI Direction

JPMorgan Global Manufacturing PMI



Global Manufacturing PMI rises to new five month high in March

BEIJING (Reuters)

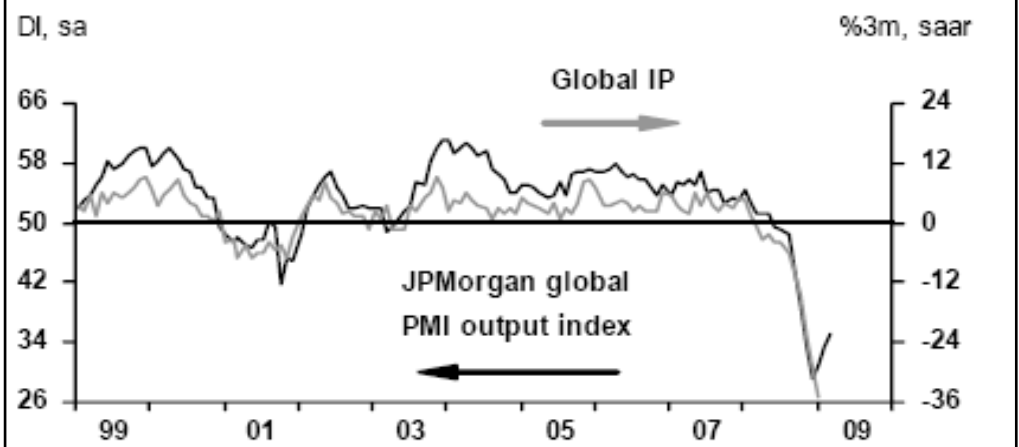
A key gauge of Chinese manufacturing improved in February for the third month in a row as factories restocked in anticipation of an early revival in the economy despite deepening global gloom.

Global Manufacturing PMI Summary

50 = no change on previous month.

	Feb	Mar	Change	Summary
Global PMI	35.8	37.2	+	Deteriorating, slower rate
Output	33.4	35.2	+	Contracting, slower rate
New Orders	31.4	35.8	+	Contracting, slower rate
Input Prices	35.1	34.2	-	Falling, faster rate
Employment	35.0	35.8	+	Falling, slower rate

Global manufacturing output



14 May 2009



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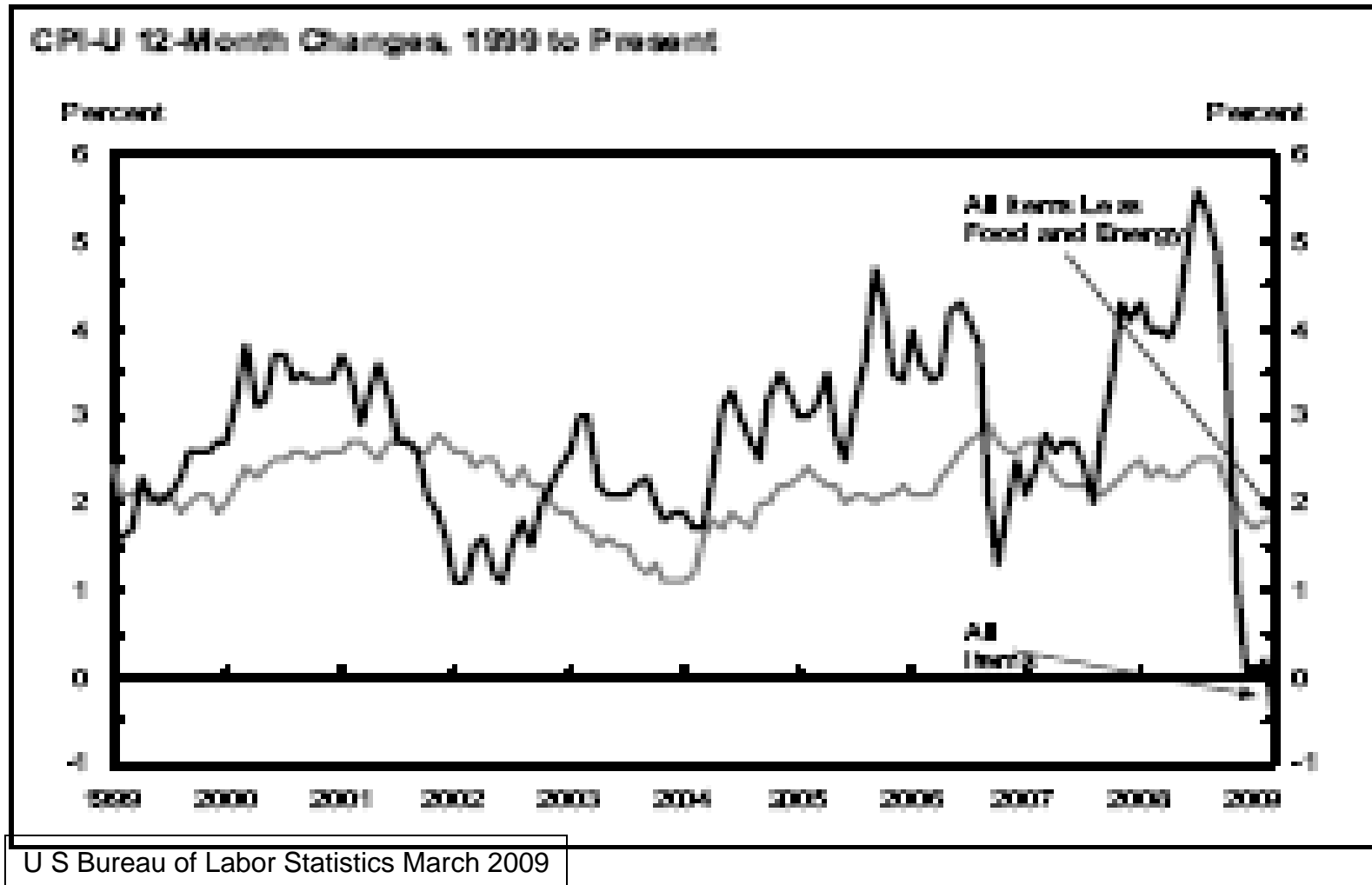
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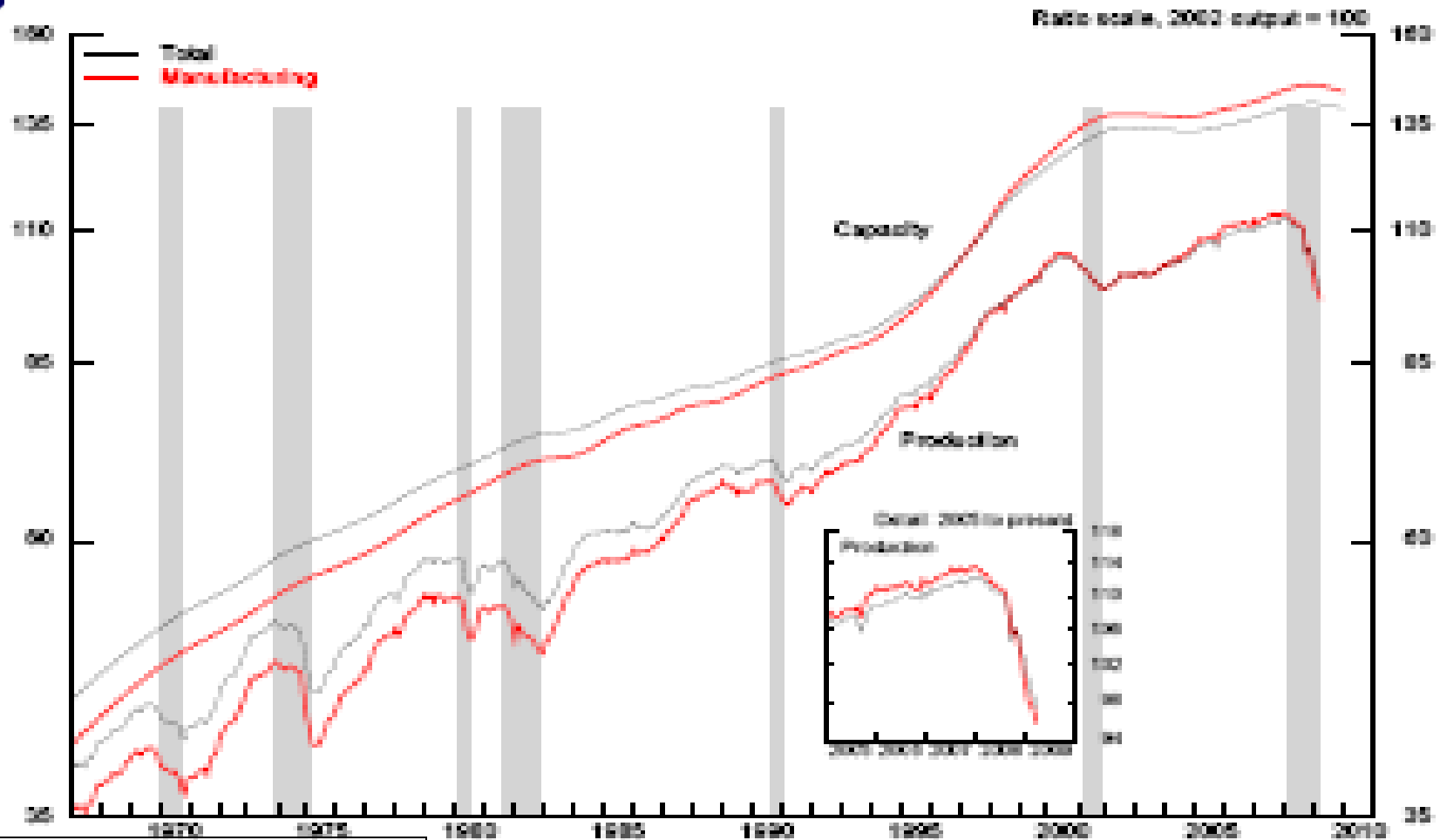


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CPI March 2009



Manufactures Index



Federal Reserve Board May 2009

Major Market Indices

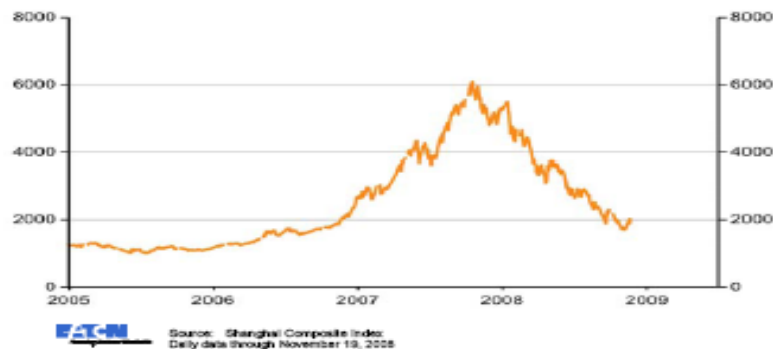
European Stocks – DJ Stoxx 50 (EUR)



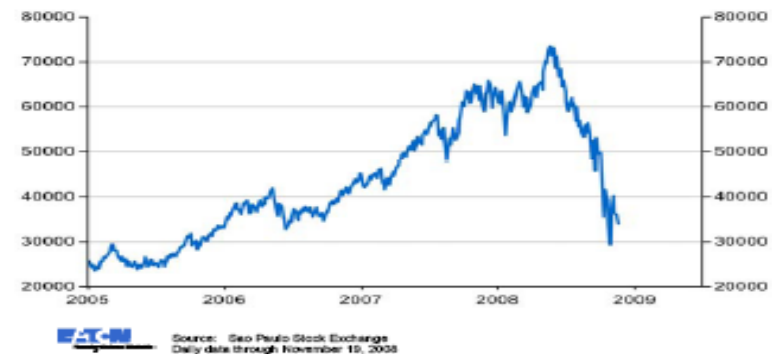
Japanese Stocks – NIKKEI 225



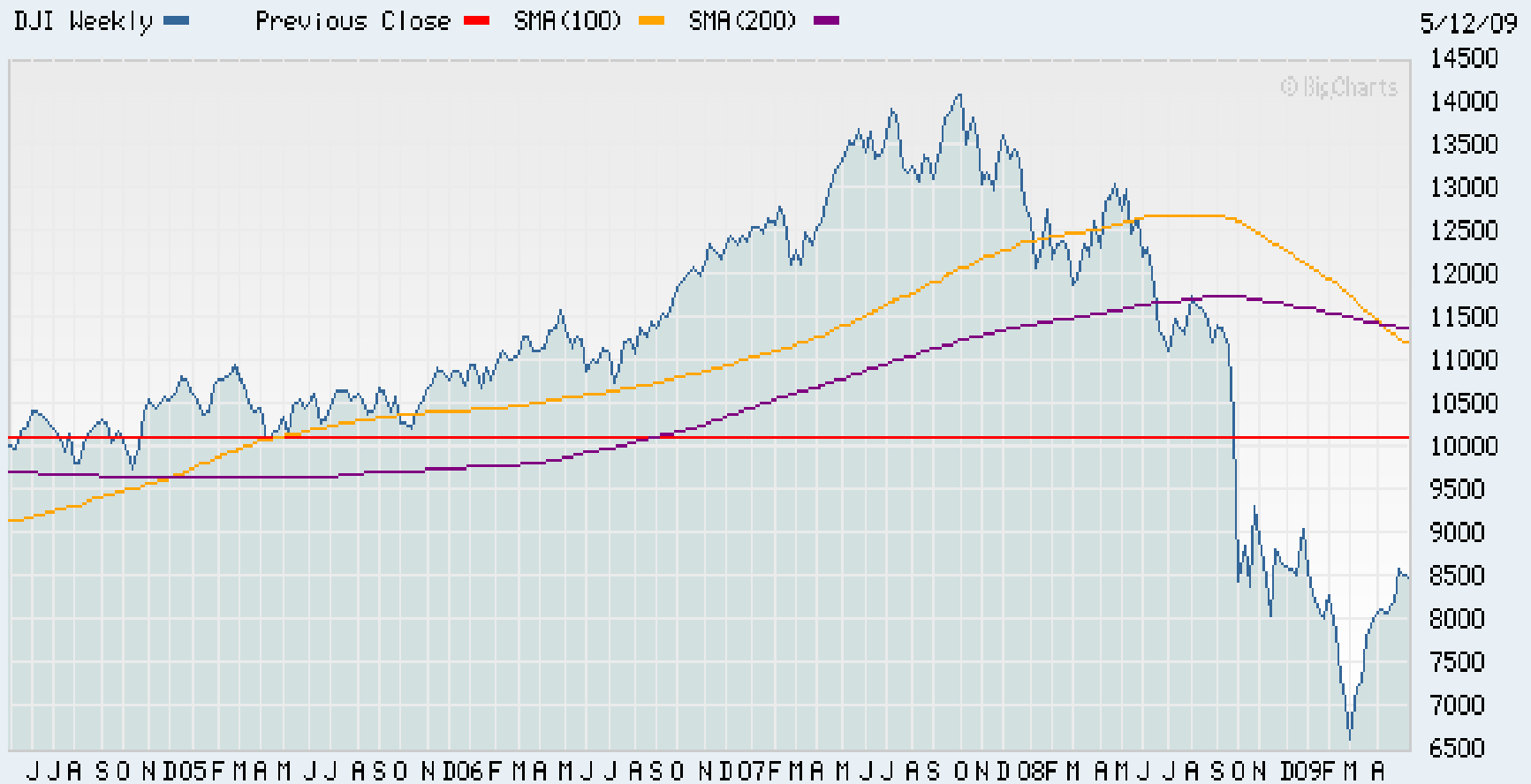
Chinese Stock Index - Shanghai Composite



Brazilian Stocks - Bovespa



DJI 5 Year Trend



2009 Dow Jones & Company May 2009



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Economic Direction

- **The unemployment rate rose** to 7.6 percent in January, the highest level since 1992.
- **Confidence among U.S. consumers plunged** to a record low in February, signaling spending will slump further as unemployment soars.
- **Spending continues to shrink in 2009**, after having contracted for the last six months of 2008 this represents the first 12-month drop in the postwar era. It was the first time purchases declined by more than 3 percent in consecutive quarters since records began in 1947.
- **U.S. sales of cars and light trucks plunged** to a 9.6 million annual rate in January, the lowest level since 1982.
- **Sluggish industrial production**, general economic weakness, and the credit crunch all contributed to abnormal seasonality of freight flows in 2008. This was then a big step down in volume as the credit crunch took hold and demand remained depressed.
- **After decelerating in 3Q08, freight volumes took a big step down** in 4Q08 as debt markets collapsed in late September and October. The fiscal and monetary policy stimuli have generated little, if any, economic traction; the export mini-boom collapsed as the dollar strengthened and as European and Asian economies quickly slipped into recession; the housing and automotive sectors remained extremely depressed; consumer spending has stalled; and shift of import container traffic from west coast to east coast continues to suppress domestic demand.



How This Translates

Transportation, will be flat or maybe even down because:

- **Volumes are down for trucking** the largest segment.
 - In the current environment it was very difficult for rates to increase.
 - For the last two years fuel surcharges have been a significant chunk of revenue.
 - With fuel prices falling in the latter part of the year and volumes down many carriers eased off on the surcharges.
- **Rail volumes although the fourth highest they have ever been will end flat or slightly up,**
 - because pricing has been soft and surcharges were removed.
- **Air Freight continues to have many problems will be down because,**
 - volumes are down,
 - fuel pricing has really hurt economics.
- **Water is down,**
 - both internationally and domestically.



What This Means in SCM

SCM Trends:

- **Reverse globalization** - new sourcing strategies, especially Mexico; rethinking many strategies
- **Changes in packaging design** - and routing to reduce ton-miles
- **Capacity issues** - loss of trucking capacity, excess capacity in container shipping industry, driver shortages
- **Transportation Companies** - Companies that come through this will be stronger, more agile players
- **Impact of the stimulus bill** - not enough nor aimed at the right spots to turn around SCM direction
- **Need For a Strong National Freight Transportation Policy** - needs to address entire supply chain, funding issues (reduced fuel consumption has hit the already inadequate Highway Trust Fund), best investment strategies, etc.
- **Fuel prices will be climbing again** - strategies to mitigate fuel volatility



What This All Means in SCM

- **High fuel prices will led many to reevaluate their entire supply chains.**
 - companies are reevaluating where they are sourcing their raw materials,
 - where they are locating their manufacturing centers, and
 - where they are locating their distribution centers.
 - No longer is moving manufacturing operations to China seen as a panacea.
- **The rail and parcel/express sectors have weathered the best.**
- **LTL pricing is under the most pressure** because demand is heavily tied to the industrial economy and capital spending, it is not as consolidated as the rail and parcel sectors, and it hasn't had enough capacity taken out relative to lower industry volumes.



SOME MAGNITUDES...

The cost of logistics in the U. S. was \$1.4 trillion in 2007; about 10.1% of our GDP (gross domestic product).

U. S. expenditure on logistics is larger than the national GDP of all but 12 countries. (For example, U. S. logistics expenditures are larger than the GDP of Spain).

Total domestic business inventories carrying costs rose 9 percent and now account for 3.5 percent of nominal GDP.

Transportation costs rose 5.9 percent and now account for 6.2 percent of nominal GDP

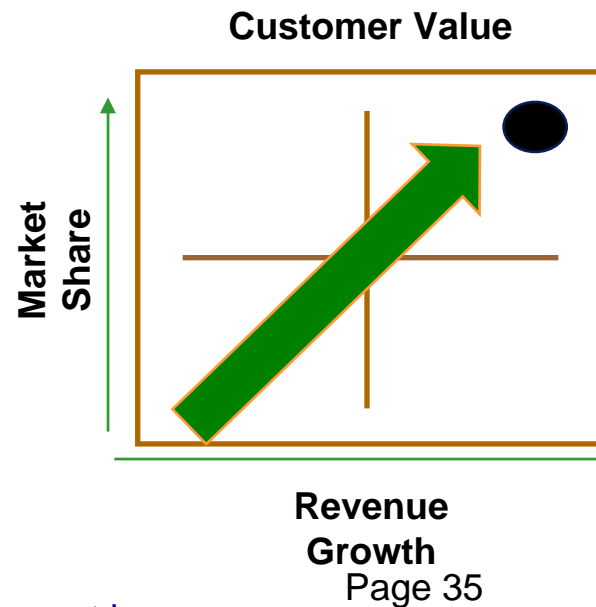
In 1980 logistics represented 17.9% of America's GDP. Today it is 10.1%. By comparison, estimated logistics costs represent 22.3% of China's GDP and 17% in India.

Key Drivers to Success

Everyone is under constant pressure to improve performance:

- ◆ Developing integrated alliances with customers
- ◆ Producing more output with less working capital
- ◆ Optimizing use of resources
- ◆ Service customers with a synchronized, responsive and low cost supply chain

The supply chains that deliver such value and focus on improvement will see increase market share and revenues.





What's In It For You


“Relationship management can create 20% to 40% difference on service, quality, cost and other performance indicators.”

93% of CEO's see their
supply chain as a strategic
asset

YET

72% of CEO's have cost
reduction as their major supply
chain goal





Best in Class Performance & Potential Savings

Industry	Total Revenue Billions	<i>Best in class</i>	<i>Median Logistics Costs</i>	Potential Savings
Chemicals & Pharmaceuticals	\$641b	3.9%	11.2%	\$46.8b
Computers & Electronic	\$356b	4.0%	8.3%	\$15.3b
Telecommunications	\$470b	3.3%	8.3%	\$23.5b
Consumer Packaged Goods	\$3,231b	4.9%	9.2%	\$138.9b
Defense & Industrial	\$1,991b	4.3%	10.2%	\$117.5b
Source: SRI International				



Benefits of SCM

Strengthens vendor /customer relations

Facilitates planning at all levels

Allows all partners in the supply chain to monitor shipment progress

Minimizes bottlenecks created by waiting for proper documents

Enables all parties to participate in process improvements

Eliminates duplicate efforts

Enhances supply chain security

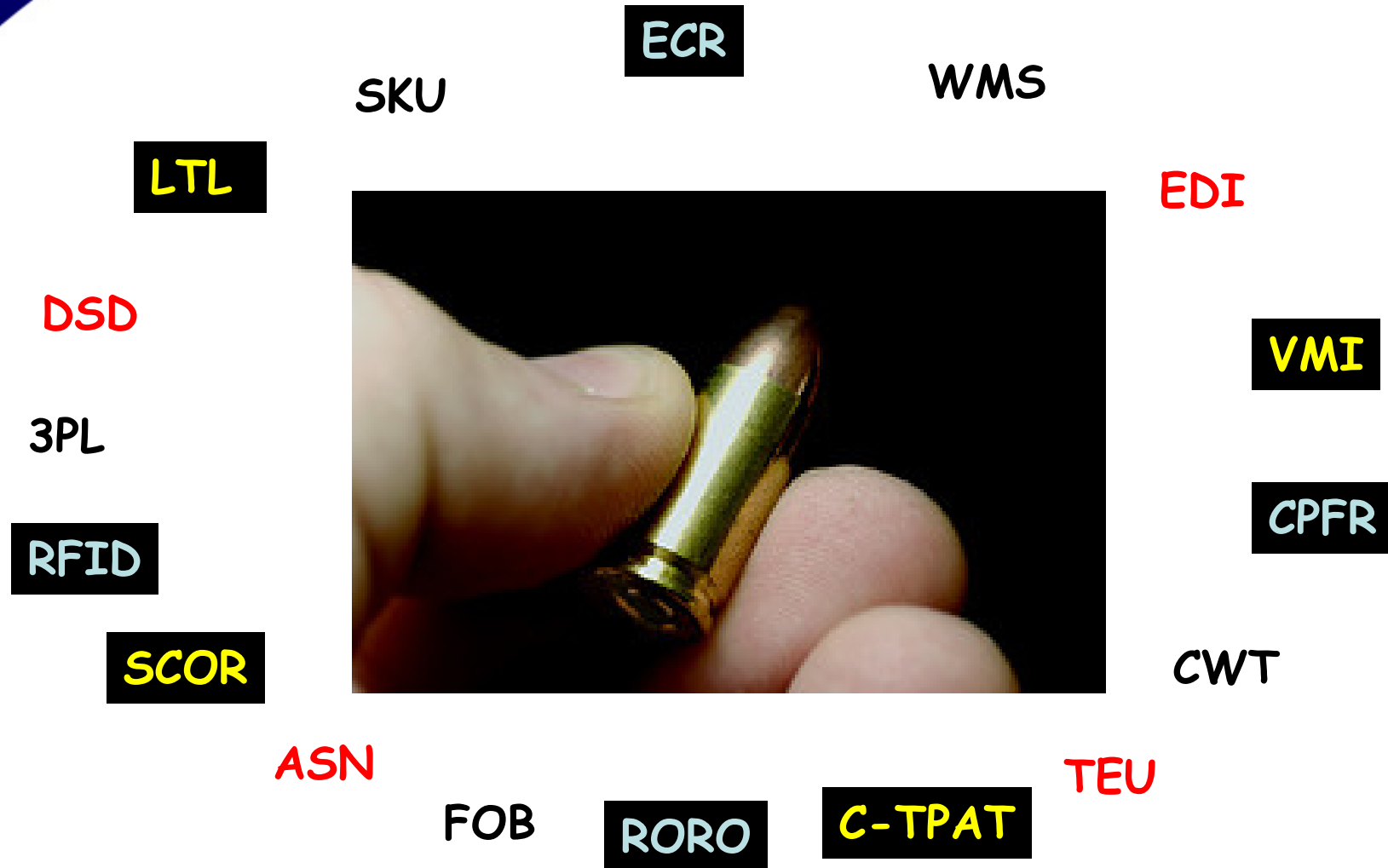


SCM Has Impacts

- ✓ A study by Georgia Tech University showed that a company's stock price drops 8% when the company experiences a glitch in its supply chain.
- ✓ A study at Miami University of Ohio showed that when a company adopts a new supply chain innovation, the company's stock price increases.
- ✓ A study by Bain & Company showed that companies employing sophisticated supply chain methods enjoyed 12 times greater profit than companies with unsophisticated methods.
- ✓ Wall Street: New found respect for SCM. In one SCM MBA program in the US, 21/32 grads received job offers from Investment Banking firms because of the importance of SCM to their clients!!

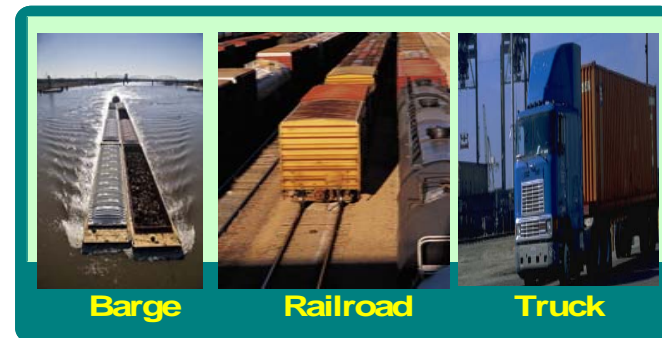
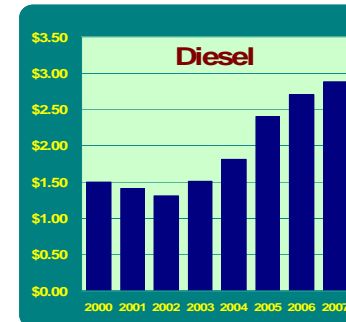


There Are No Silver Bullets



The Future

- The Economy
- Oil Prices
- Shrinking Capacity



KEY ISSUES IMPACTING SUPPLY CHAIN MANAGEMENT

Trust



Financial Markets



Multiple Supply Chains



Managing Relationships



Old-line Management

Information Challenges





Questions?

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