

2008 ASPO-USA Peak Oil Conference

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2008 SACRAMENTO PEAK OIL CONFERENCE

UC DAVIS
UNIVERSITY OF CALIFORNIA

THE ENERGY CHALLENGE • THE FUTURE STARTS NOW

September 21-23 • Hyatt Regency Sacramento California



PEAK OIL: MACRO INVESTMENT THEMES

Jim Puplava

September 21, 2008



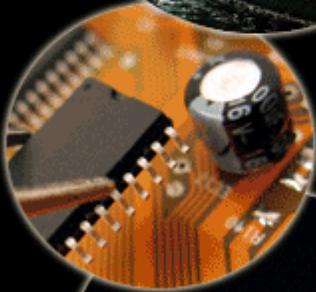
PEAK OIL MACRO THEMES



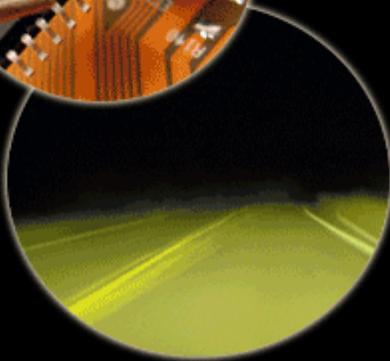
▪ Death of the Consumption Society



▪ Reverse Globalization



▪ The “Gorilla Game”



▪ The Big Unknown

DEATH OF CONSUMPTION ECONOMY



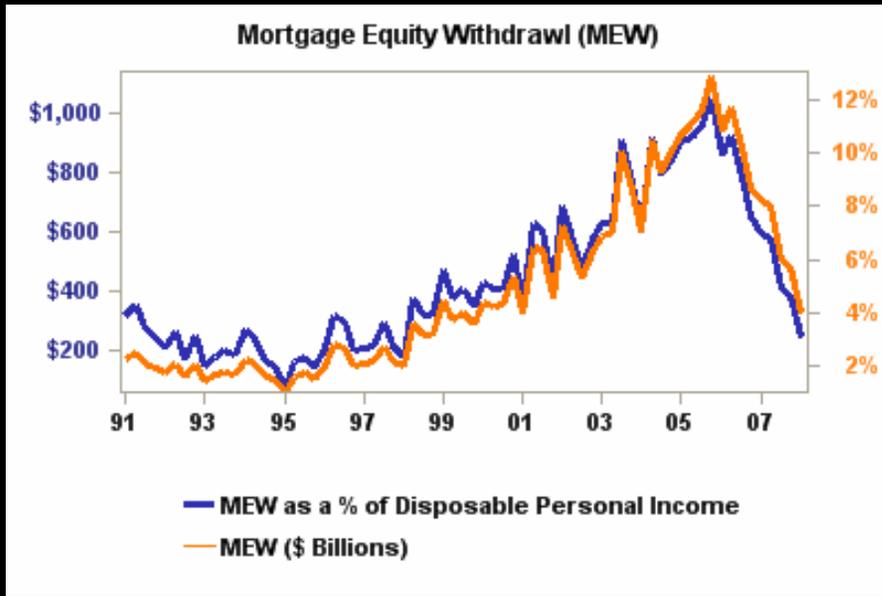
Source: Bureau of Economic Analysis

• Taxes & Inflation

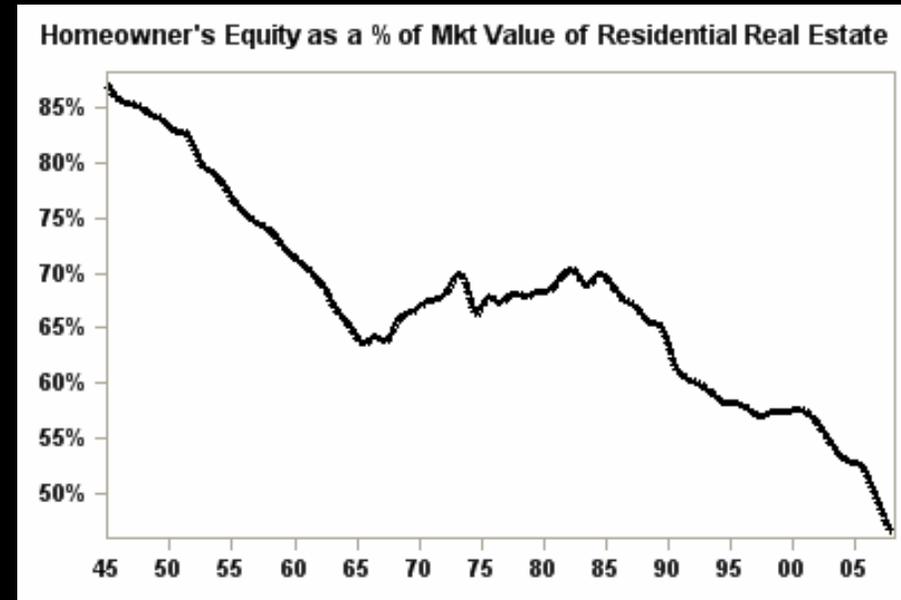
- ◆ Rising Taxes
- ◆ Rising Inflation
- ◆ Negative Savings
- ◆ Rising Debt Levels

DEATH OF CONSUMPTION ECONOMY

THE LAST STRAW



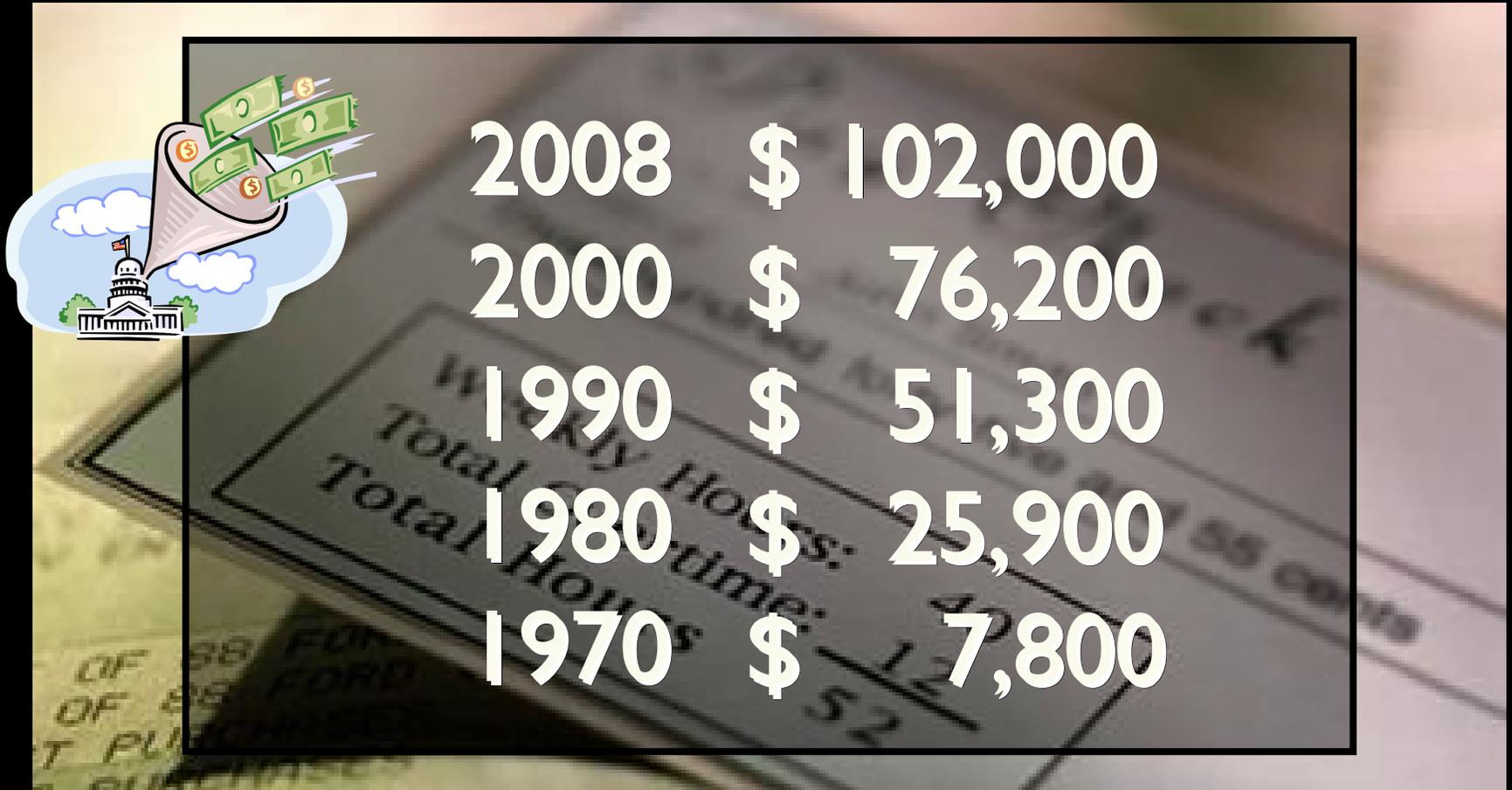
Source: Federal Reserve Board



Source: Federal Reserve Board Flow of Funds

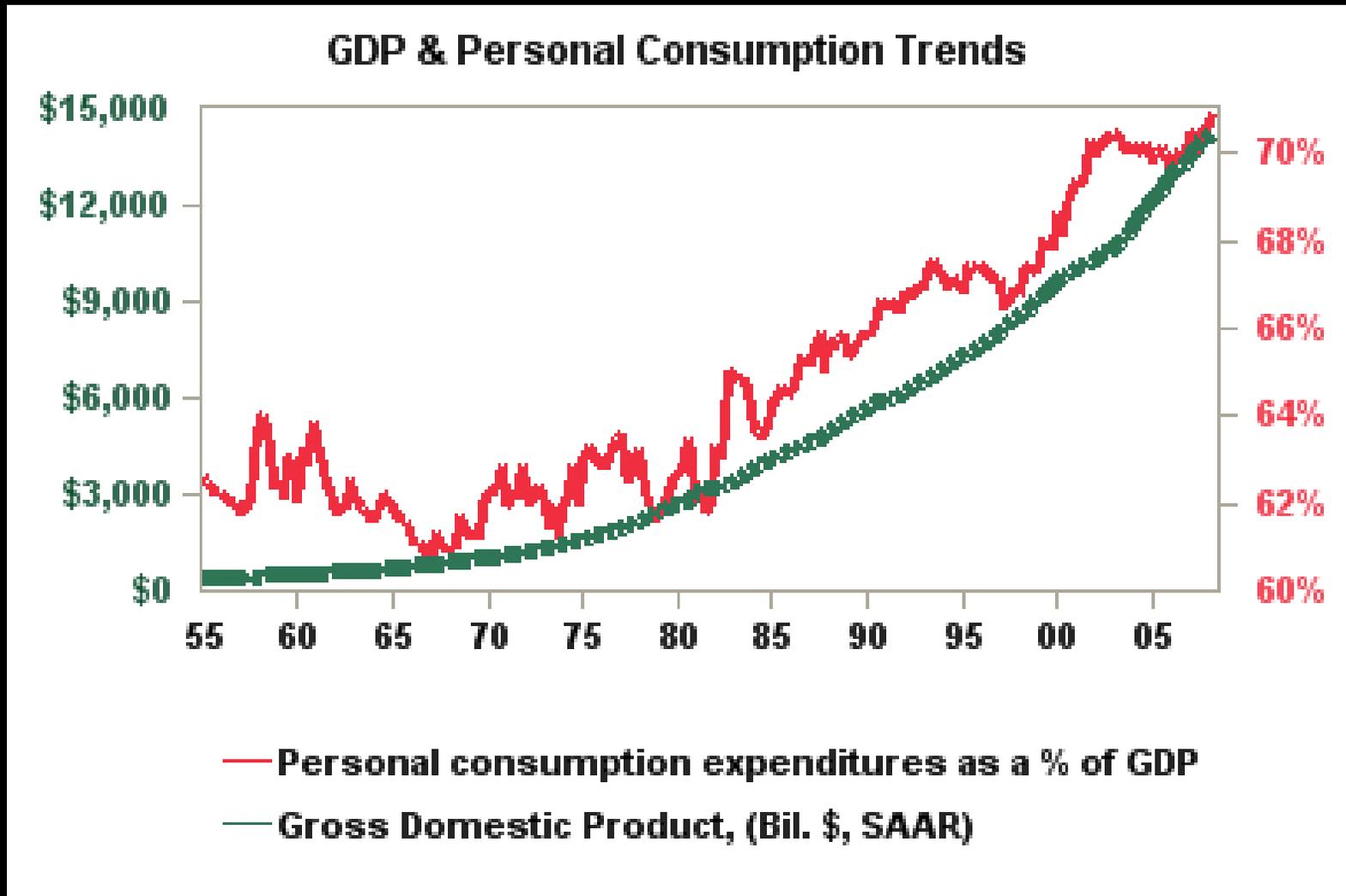
DEATH OF CONSUMPTION ECONOMY

SOCIAL SECURITY WAGE BASE



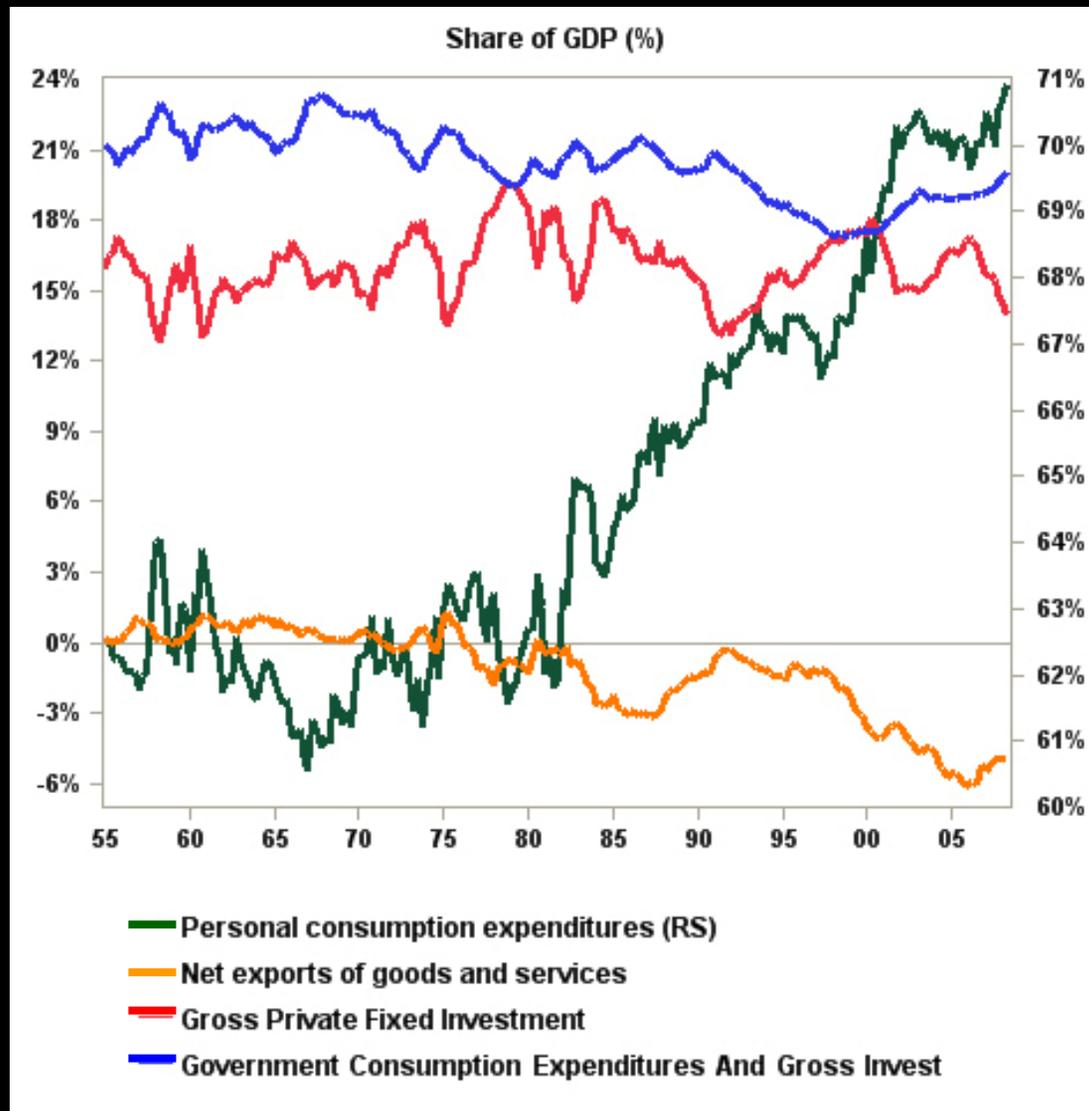
Source: "Contribution and Benefit Base," Social Security Administration

CONSUMPTION AND GDP



Source: Bureau of Economic Analysis

THE CONSUMPTION-ORIENTED ECONOMY



Source: Bureau of Economic Analysis

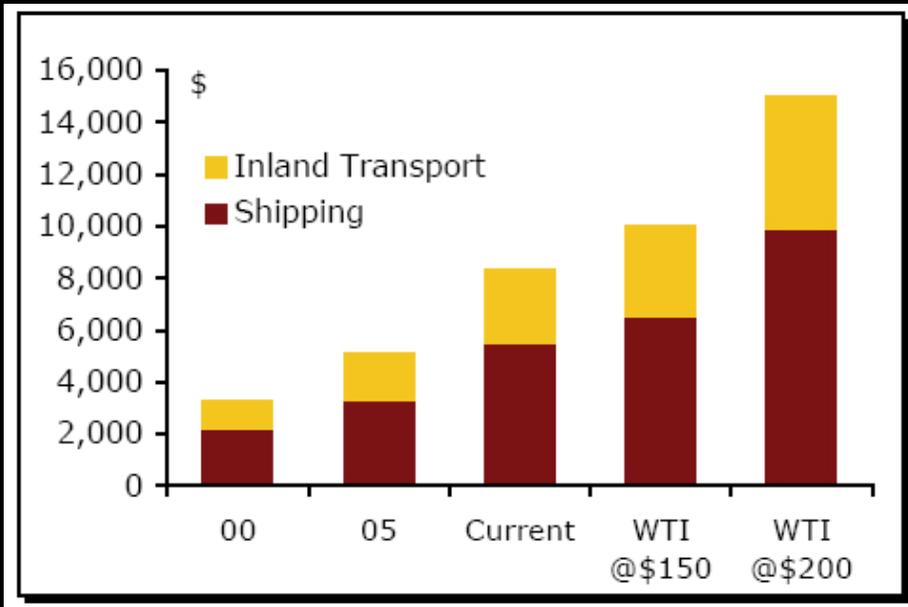
REVERSE GLOBALIZATION



REVERSE GLOBALIZATION



- Cost of Moving Goods – Key Variable
- Last 3 Years:
 $\$1 \text{ Oil } \uparrow = 1\% \text{ Rise in Transport Costs}$



China to North America 4 Weeks

Total Cost of Transporting a 40' Container from Shanghai to US East Coast

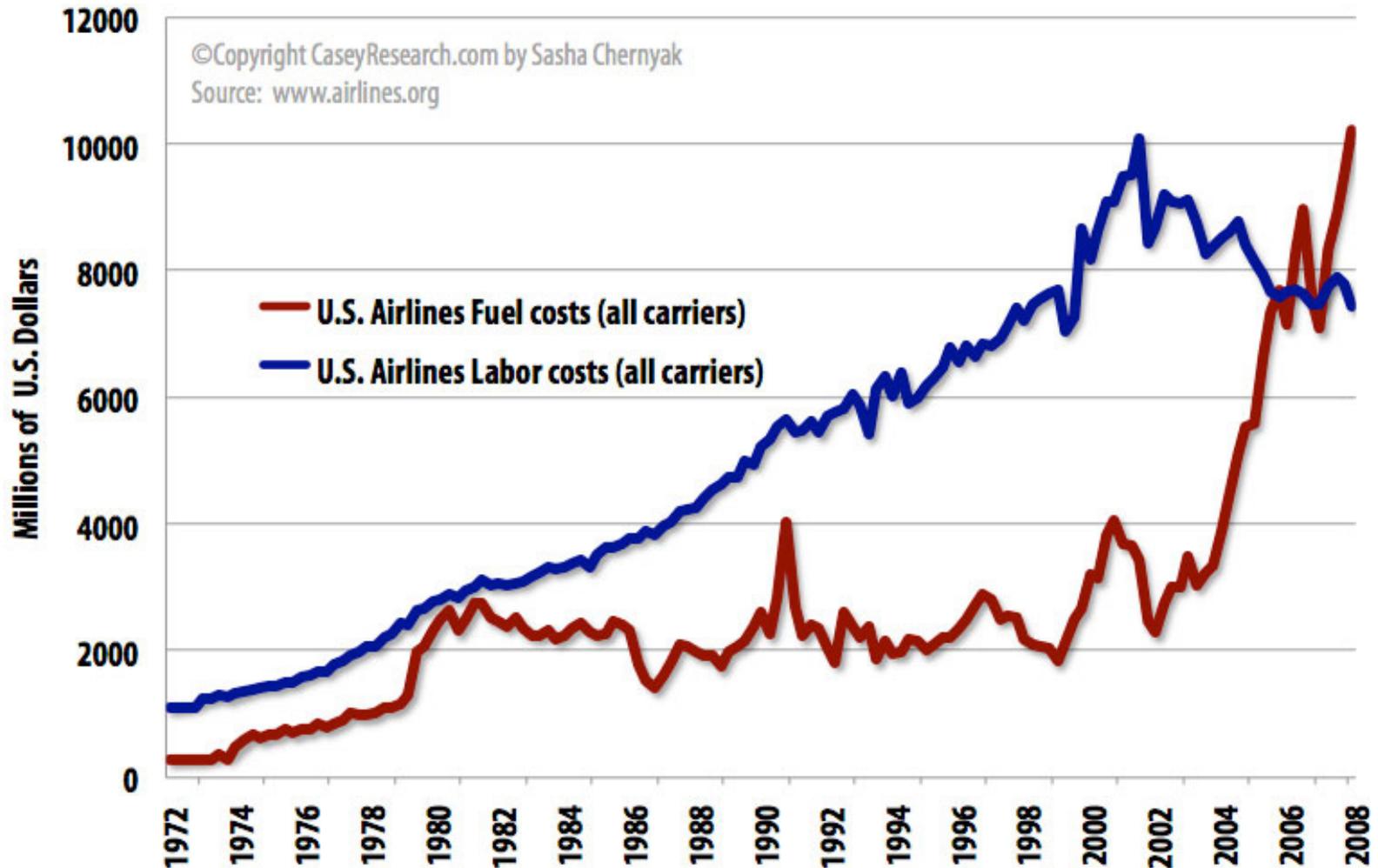
YEAR	COST
2000	\$3,000
2008	\$8,000

\$200 Oil = \$15,000

Source: Jeff Rubin & Benjamin Tal, "Will Soaring Trade Costs Reverse Globalization?," CIBC World Markets *StrategEcon*, 5/27/2008, Chart 2

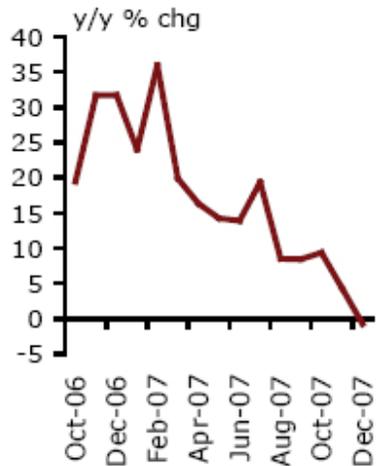
AIR TRANSPORTATION COSTS

And the Price of Inflight Pretzels Will Surely Follow...

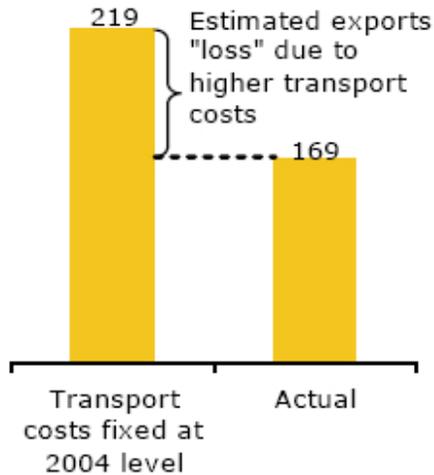


SHIFTING INTERNATIONAL TRADE DYNAMICS

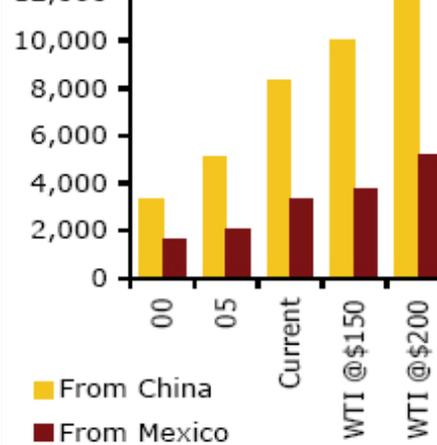
Freight-Intensive Exports to US



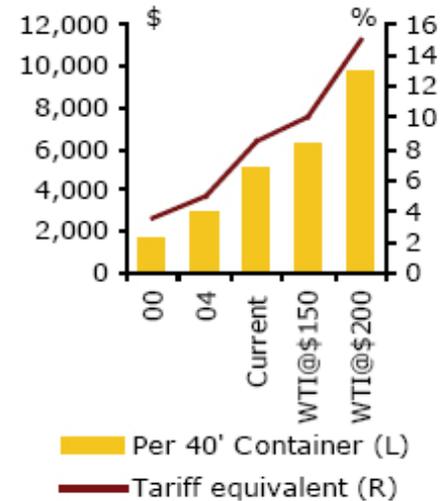
Growth in Non-Energy Exports (\$Bn) 2004-2007



Cost of shipping a 40' container to US East Coast (\$)



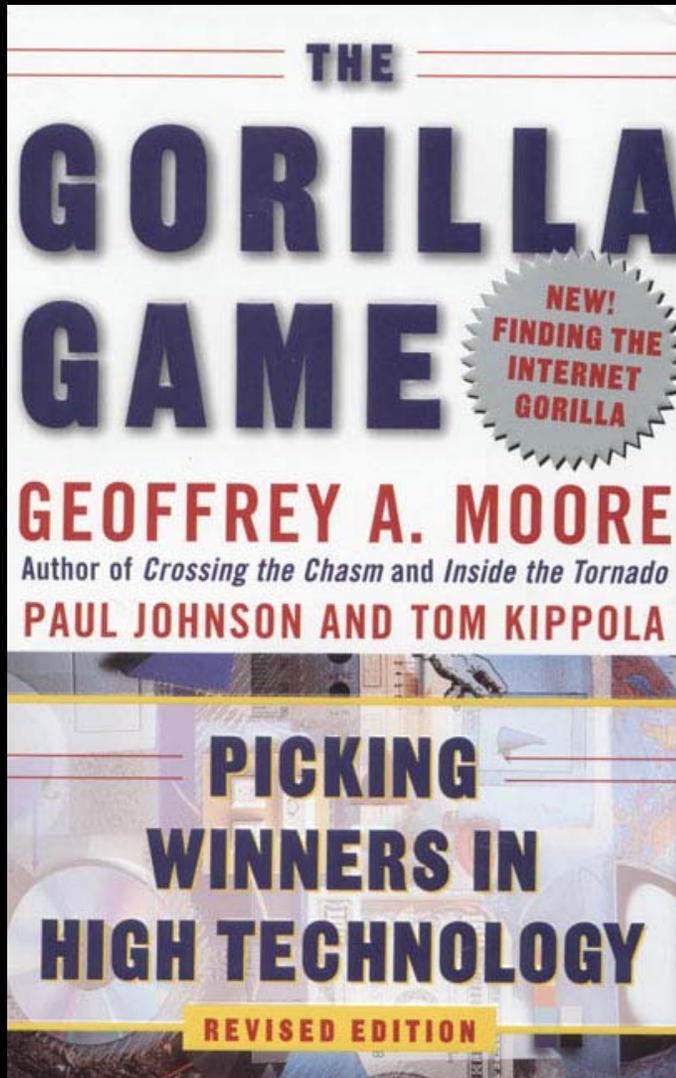
Savings by Switching from China to Mexico



Source: US Census Bureau, Golisticsmgt, De 2007, CIBCWM; as cited in Jeff Rubin & Benjamin Tal, "Will Soaring Trade Costs Reverse Globalization?," CIBC World Markets *StrategEcon*, 5/27/2008, Charts 7 & 8

- Altering Wage Differentials
- Capital-Intensive Manufacturing
 - ◆ \$90 Freight cost per ton of steel
- Shifting Trade Patterns
 - ◆ Interregional Trade

THE “GORILLA GAME”



- Traditional Energy
- Alternatives
- Transportation
- Infrastructure
- Lifestyle

THE GREAT UNKNOWN

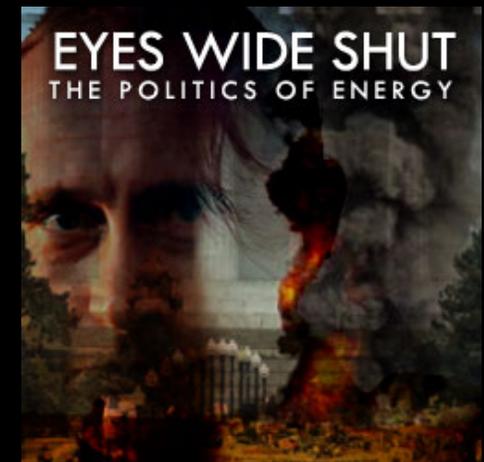
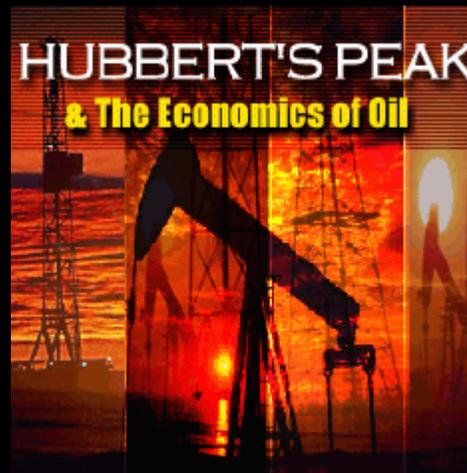
SOLVING PEAK OIL



- A. Conservation
- B. More Drilling
- C. Alternative Energy
- D. Manhattan Project
- E. All of the Above

UNKNOWN OUTCOMES

1. Last Man Standing — Richard Heinberg
2. Long Emergency — James Kunstler
3. Collapse — Jeremy Diamond
4. Silver Bullet



THE NEW “GREAT GAME”



Source: [The New Great Game](#) by Lutz C. Kleveman

My name is Ozymandias, King of Kings,
Look on my Works, ye Mighty, and despair!
Nothing beside remains. Round the decay
Of that colossal Wreck, boundless and bare
The lone and level sands stretch far away.

—“Ozymandias” by Percy Bysshe Shelley (1817)

“My grandfather rode a camel, my father rode a camel, I
drive a Mercedes, my son drives a Land Rover, his son
will drive a Land Rover, but his son will ride a camel.”



—Sheikh Rashid bin Saeed Al Maktoum (1912-1990)
Prime Minister of United Arab Emirates 1979-1990