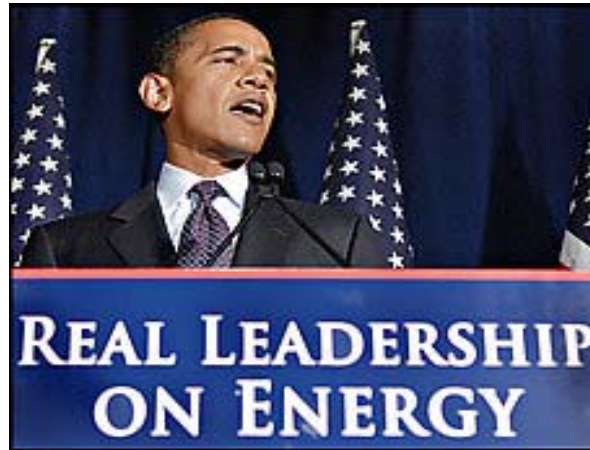


## The Middle East, Oil & Diplomacy

**Amy Myers Jaffe**  
**Wallace S. Wilson**  
**Fellow for Energy**  
**Studies**

**James A. Baker III**  
**Institute for Public Policy,**  
**Rice University**



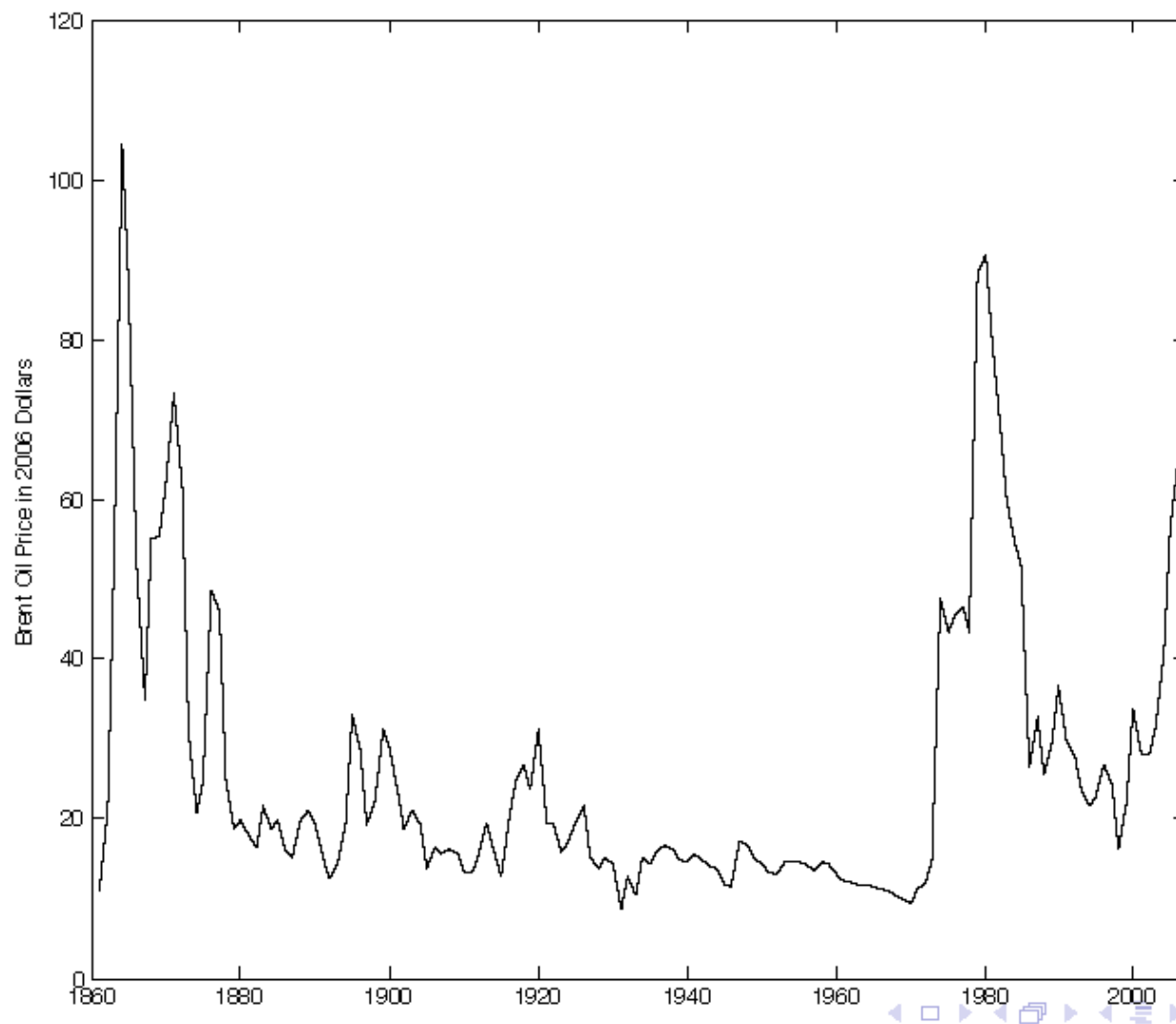
**PESA U.S. Foreign**  
**Officers Meeting**

**July 31, 2009**



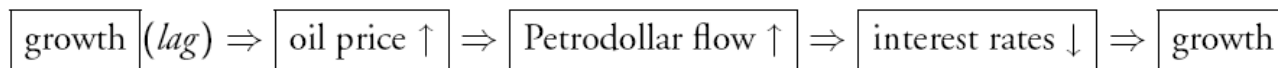
# Coincidence of High Oil Prices with Financial Crises

Currency & Banking Crises Severest 1850s-70s, 1970s-

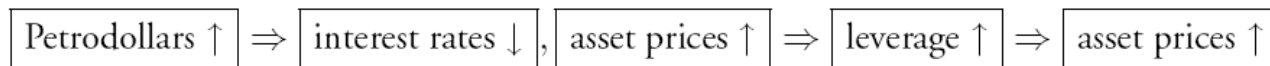


## Cyclical Petrodollar Recycling and Financial Crises

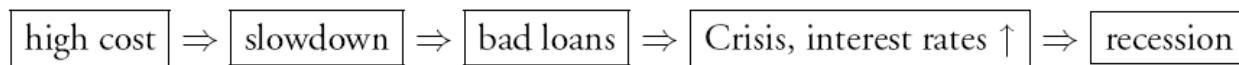
- Feedback mechanism during booms



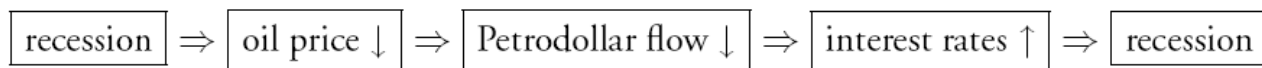
- Hubris (80's: *countries don't go bankrupt*; 00's: *house prices don't fall!*)



- Eventually (*Minsky moment*; *Ponzi finance*)

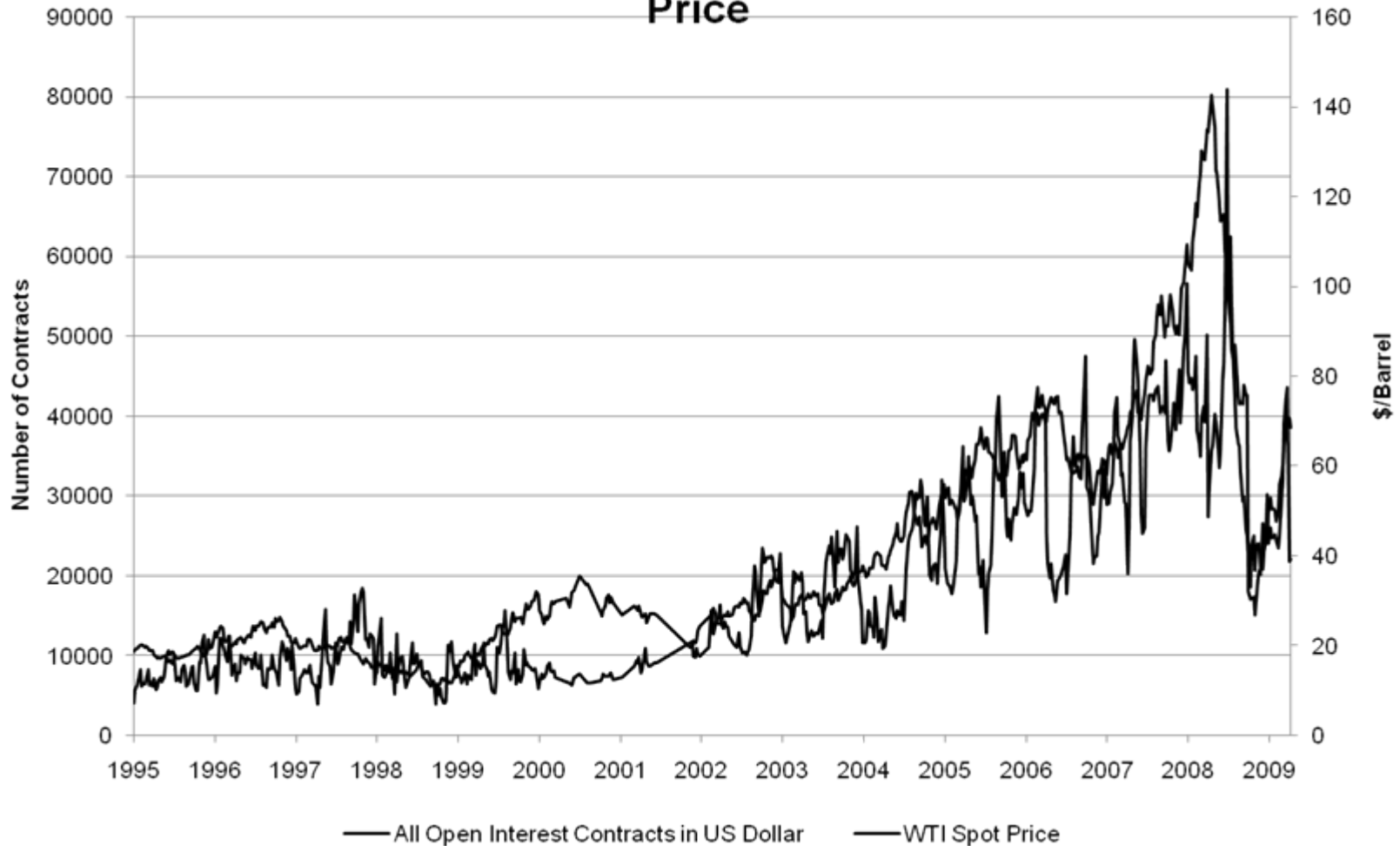


- Feedback mechanism during busts



- Low cost of production + monetary and fiscal policies (lag)  $\Rightarrow$  economic growth + geopolitical strife (lag)  $\Rightarrow$   $\boxed{\text{oil price } \uparrow}$  . . .

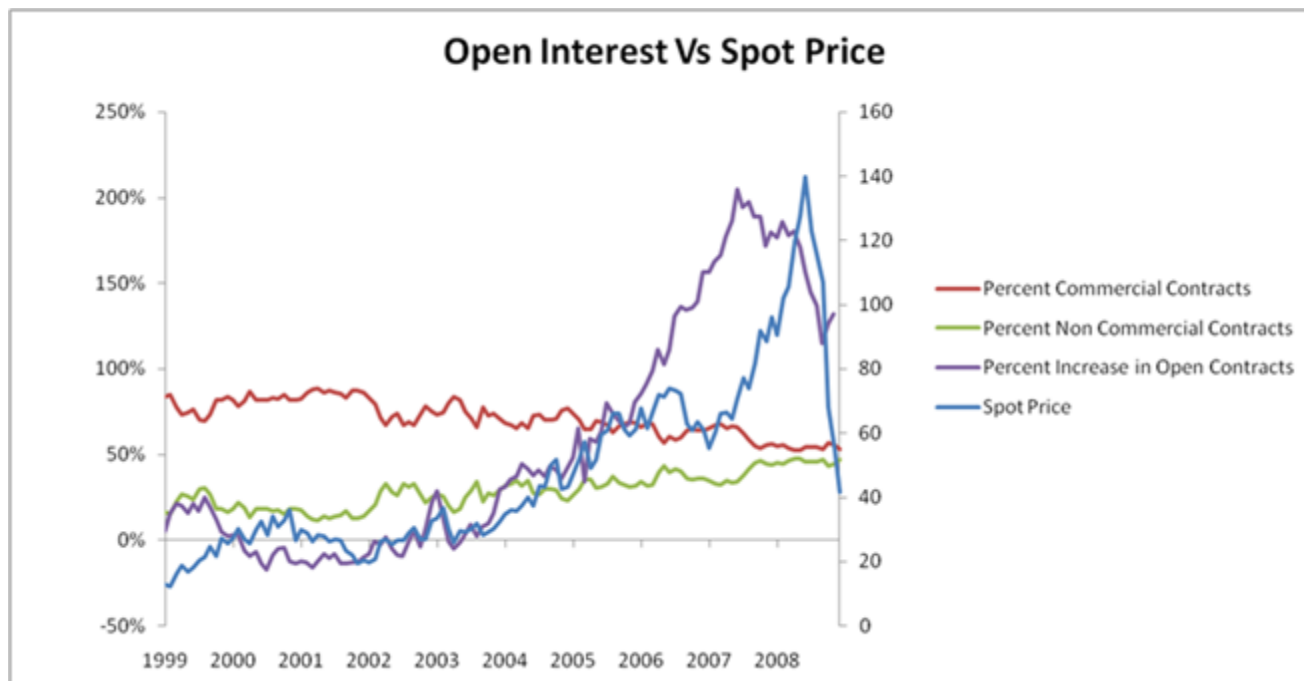
## Open Contracts in U.S. Dollar Trading vs. Crude Spot Price



Total number of open contracts traded in the US dollars futures market.    Source: Baker Institute

## “Whence \$147 oil?”

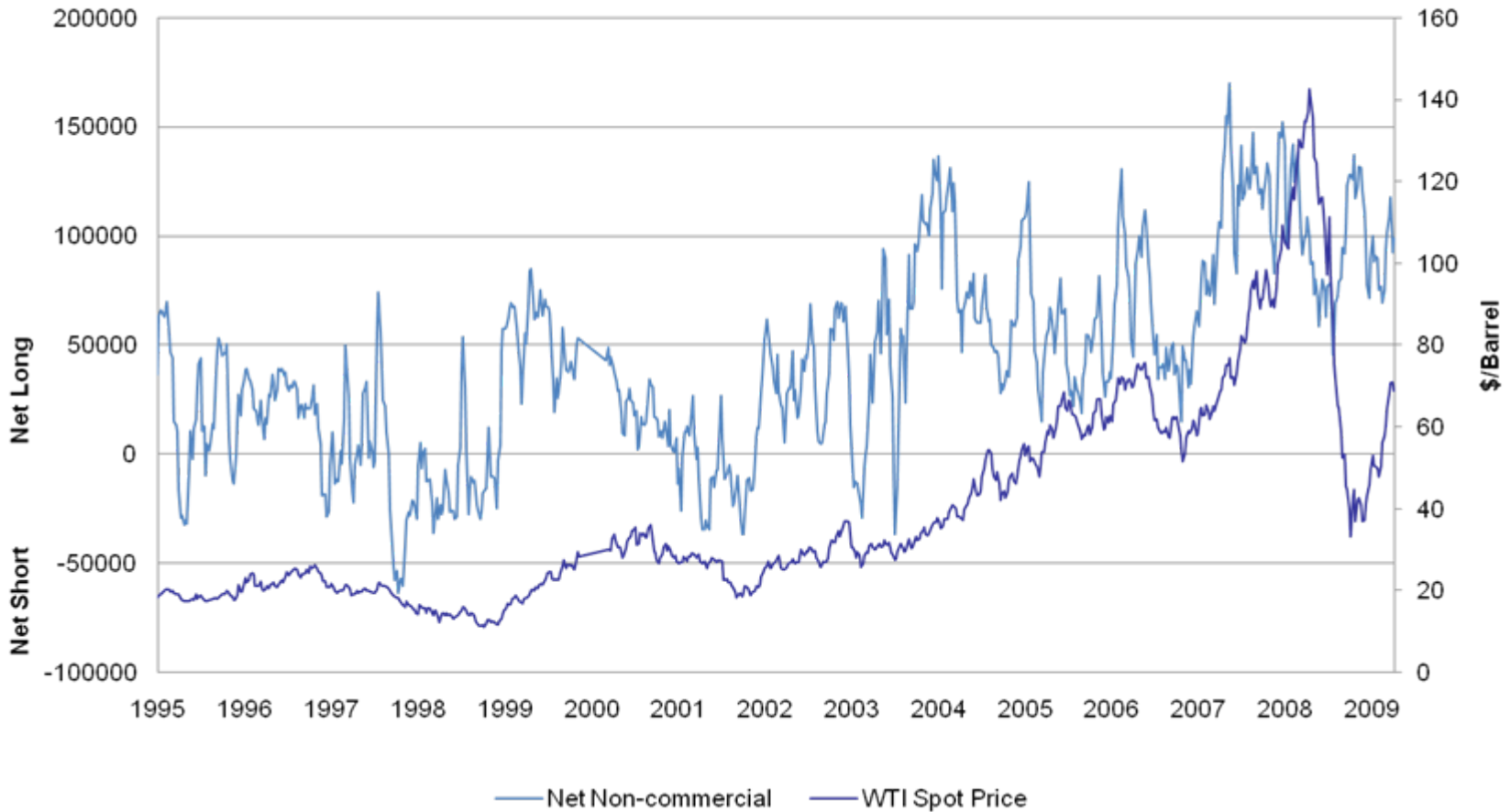
- Fundamentals or Speculation?
  - Data indicates a growing net long position of those with no physical stake in the market (speculators)
- Baker Institute**



Data source: Baker Institute from CFTC, Chart created by Brett Scarbrough (2009)

- Financial players have increased their market presence

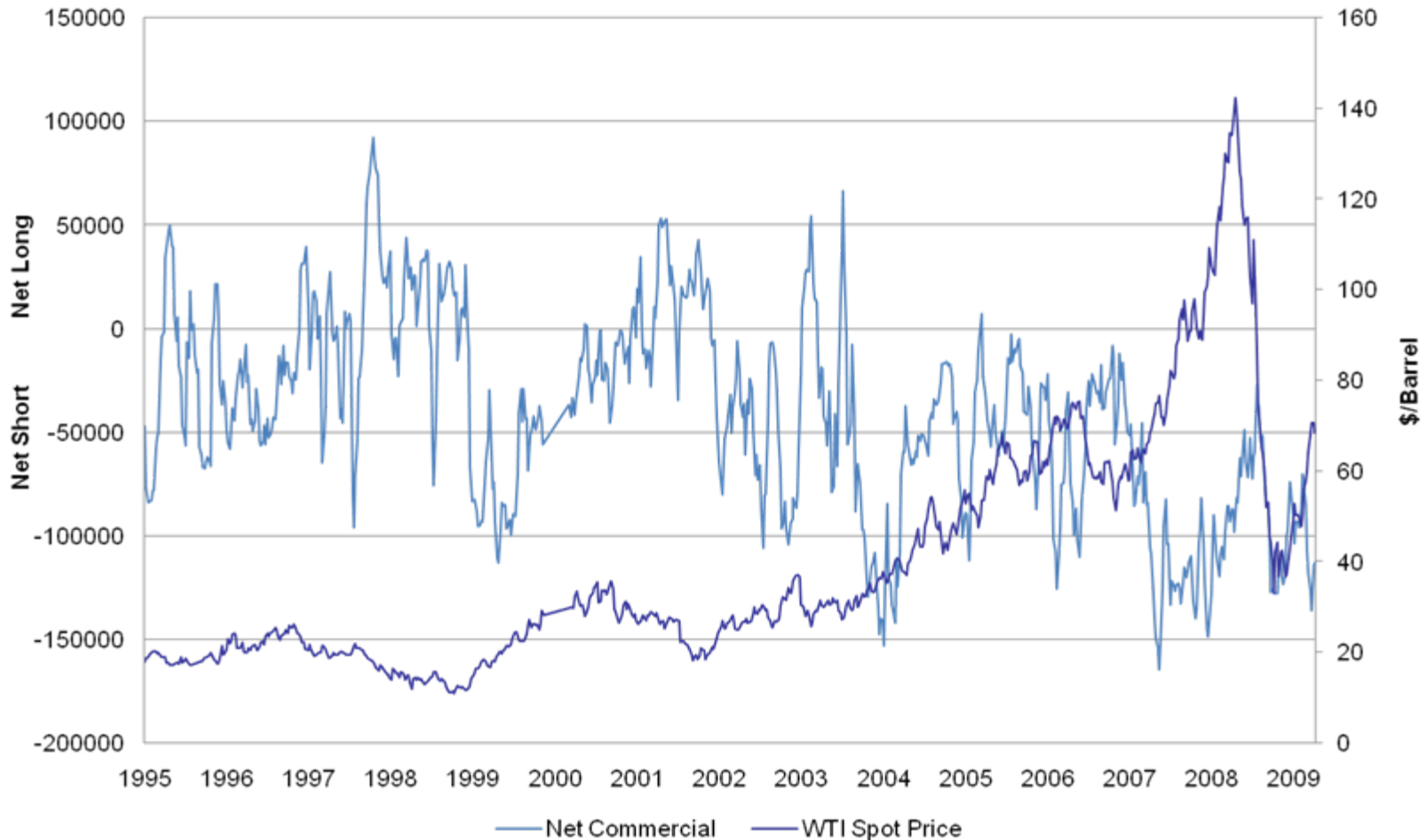
## Net Non-commercial vs. Spot Price



Net non-commercial is defined as non-commercial long positions minus non-commercial short positions. Values greater than zero are net long, values less than zero are net short.

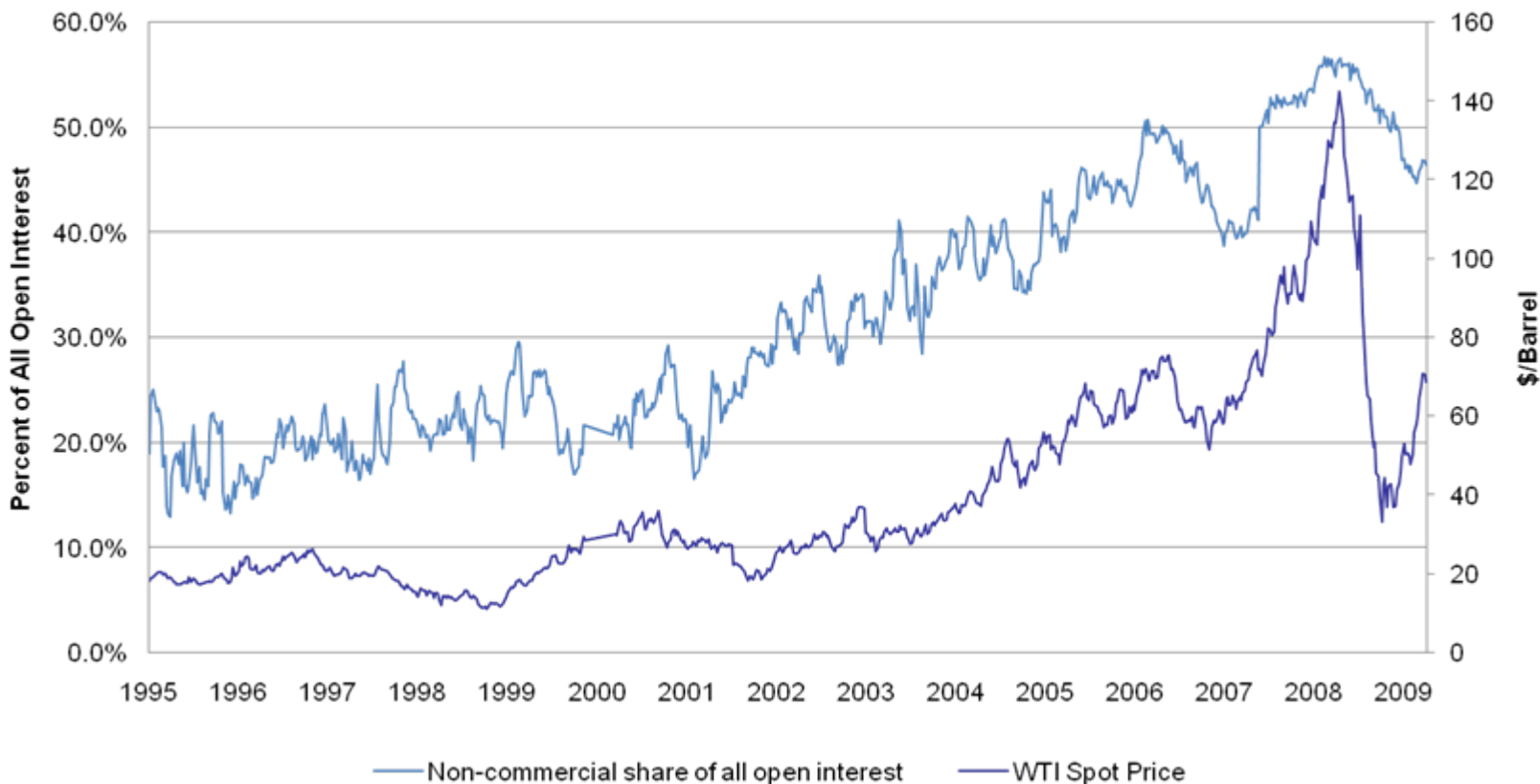
Source: Baker Institute

## Net Commercial vs. Spot Price



Net commercial is defined as commercial long positions minus commercial short positions. Values greater than zero are net long, values less than zero are net short.

## Non-commercial share vs. Spot Price



Non-commercial share is the percentage of all open interest comprised by non-commercial positions. It is calculated by dividing the sum of non-commercial long, short, and spread positions by total open interest.

Source: Baker Institute

- What are the things that might be different moving forward?
- Myth: Cost structure/Price Structure Cannot Come Down
- Myth: Demand Growth Will Return at the Same Pace as soon as Economy Bounces
- Myth: Saudi Policy will be the Same
- Myth: Green Policies Cannot Change the Energy Mix or Limit Demand

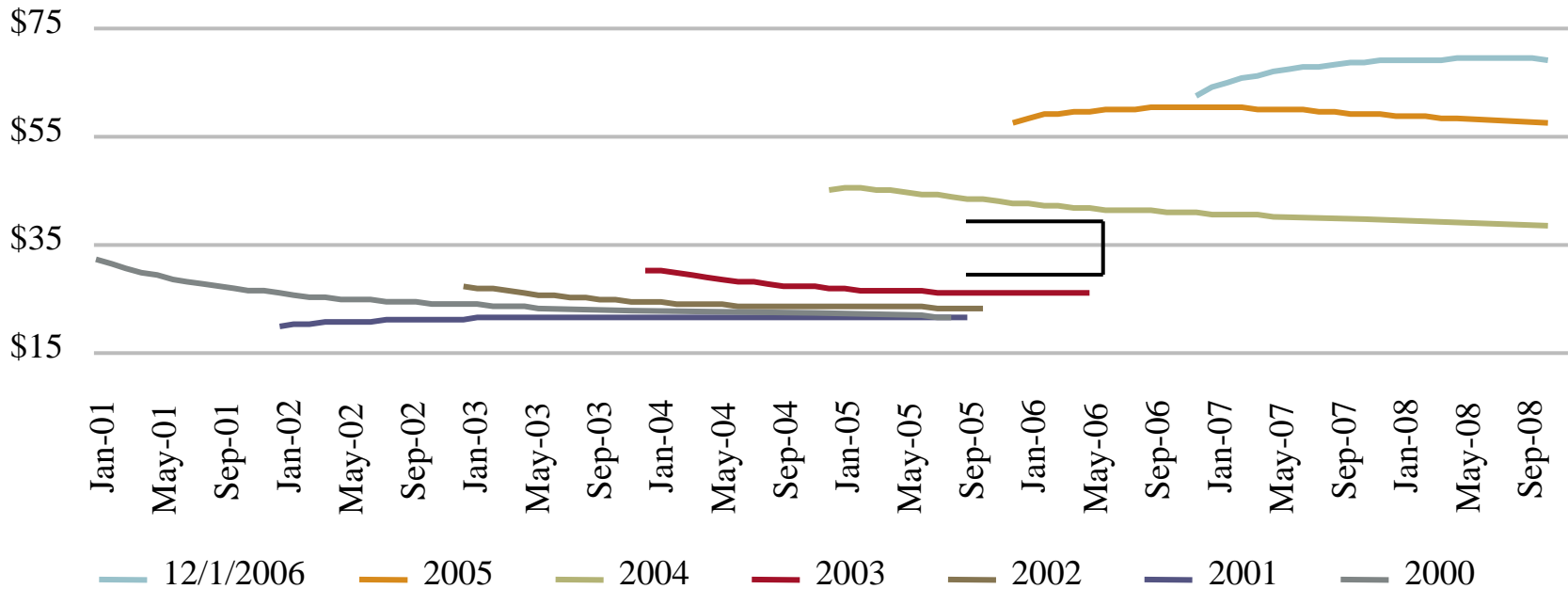
## Why did the long oil price move upwards?

- Pessimism about NOC investment in new capacity
- Access restrictions for/lack of spending by IOCs
- Terror Premium created permanent change in attitudes about price floors
- F&D cost inflation
- China demand "story"

## What's Changed?

- New Finds in 2000 meters off Brazil, Eastern Mediterranean, Angola, other Africa, etc.
- New Plays such as Shale Gas
- Energy Efficiency A New and Higher Priority

## The Long Oil Price Didn't Move Until 2004

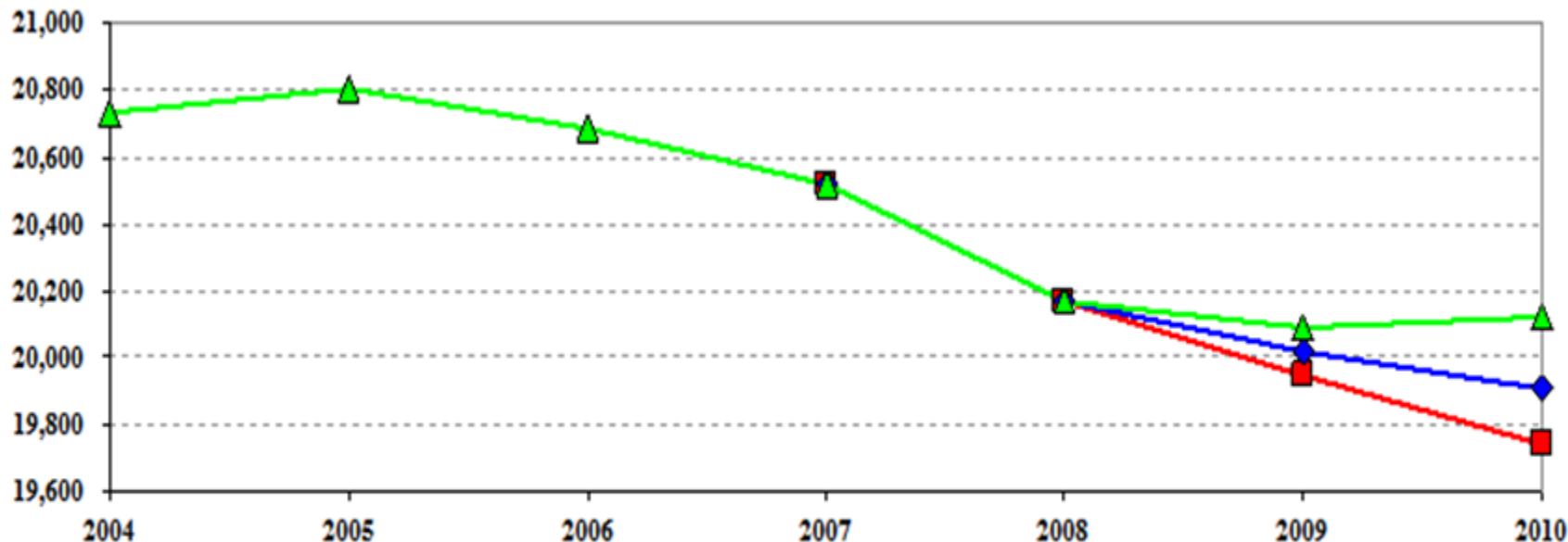


1. Forward curve on December 1, every year.

## US Oil Demand

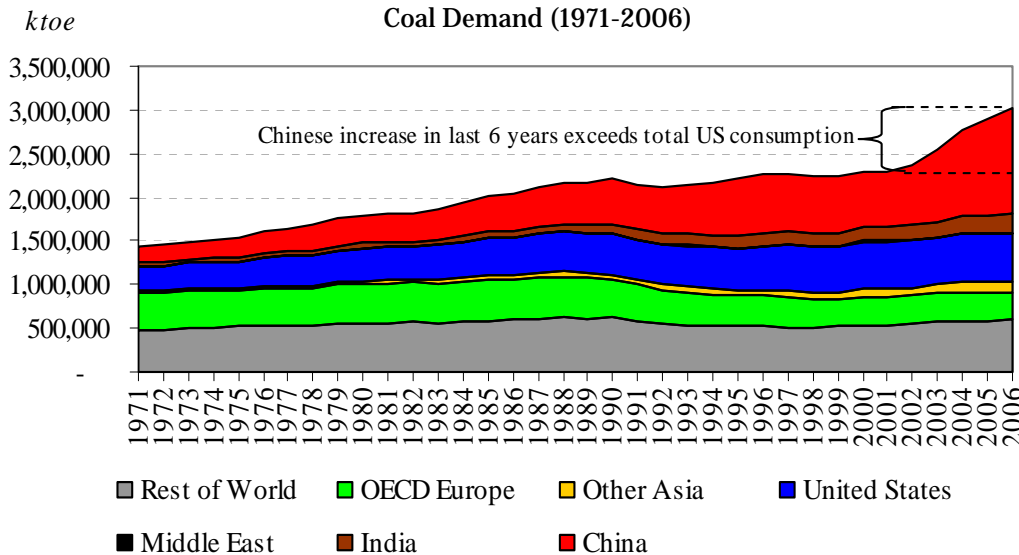
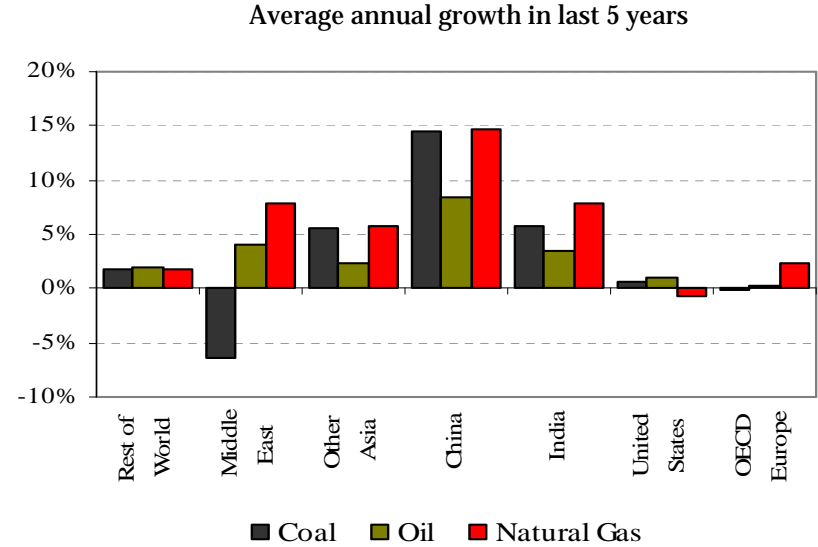
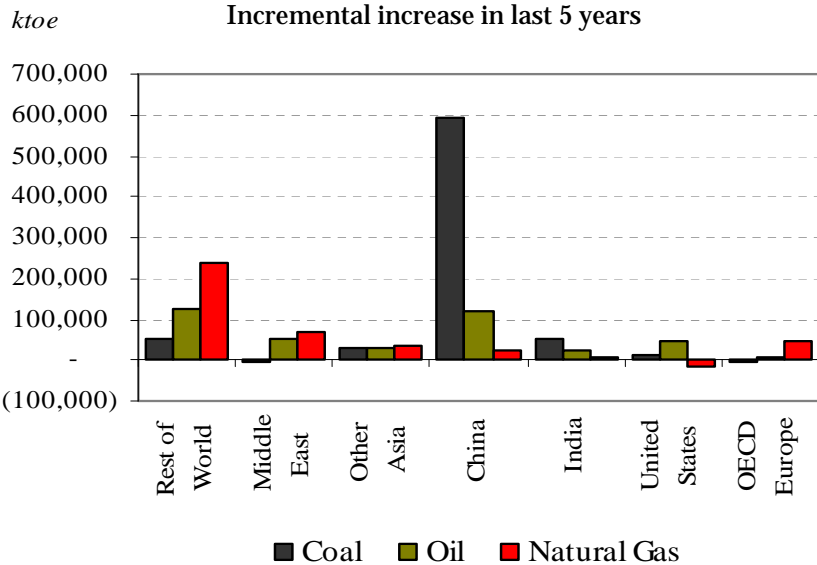
- The last four years and what we might expect for 2008-2010...
- Pre-1973, global demand grew at 7.6% per annum; Post Iranian Revolution, growth slowed to 2% per annum. We assume this 2% will return, but other factors are at play...
- ExxonMobil projects that over 180 million boe of demand will be eliminated by energy efficiency gains by 2030
- Baker Institute projections under various scenarios for the recovery

'000 bbl/d



	2004	2005	2006	2007	2008	2009	2010
GDP growth ...	3.64%	2.94%	2.78%	2.03%	0.5%	0.5%, -0.5%, -1.5%	2%, 0.5%, -0.5%
Price .....	\$ 33.80	\$ 44.56	\$ 51.78	\$ 56.77	\$ 90.79	\$ 45.00	\$ 50.00
HDD .....	4290	4315	3996	4255	4463	4463	4463
Fuel Eff .....	17.1 mpg	17.1 mpg	17.2 mpg	17.4 mpg	17.5 mpg	18.3 mpg	18.4 mpg

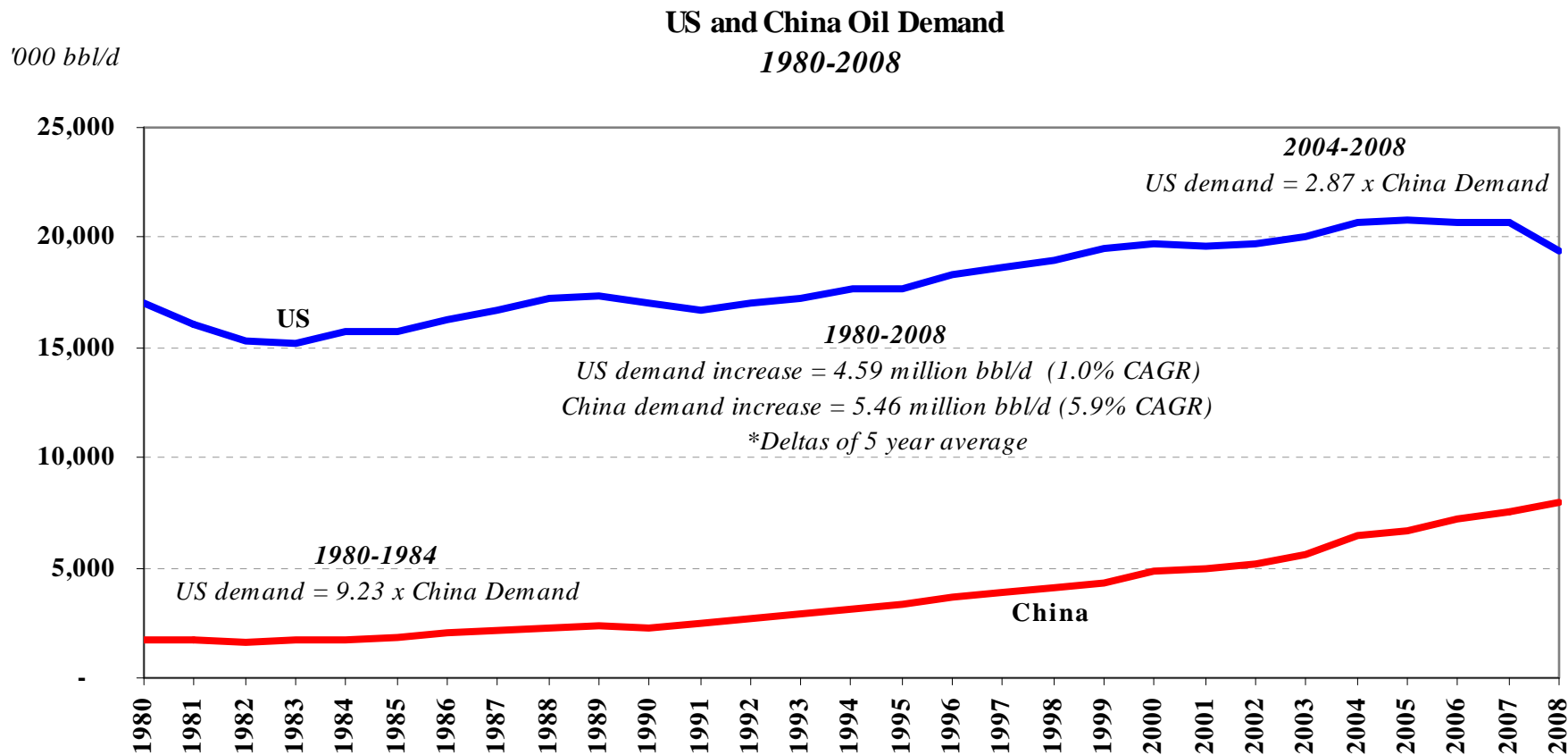
## The “Savior” Factor of China and India



- China demand growth is very strong, for all energy commodities
- Coal demand growth has been especially robust
- Current market rally on China buying and expectations

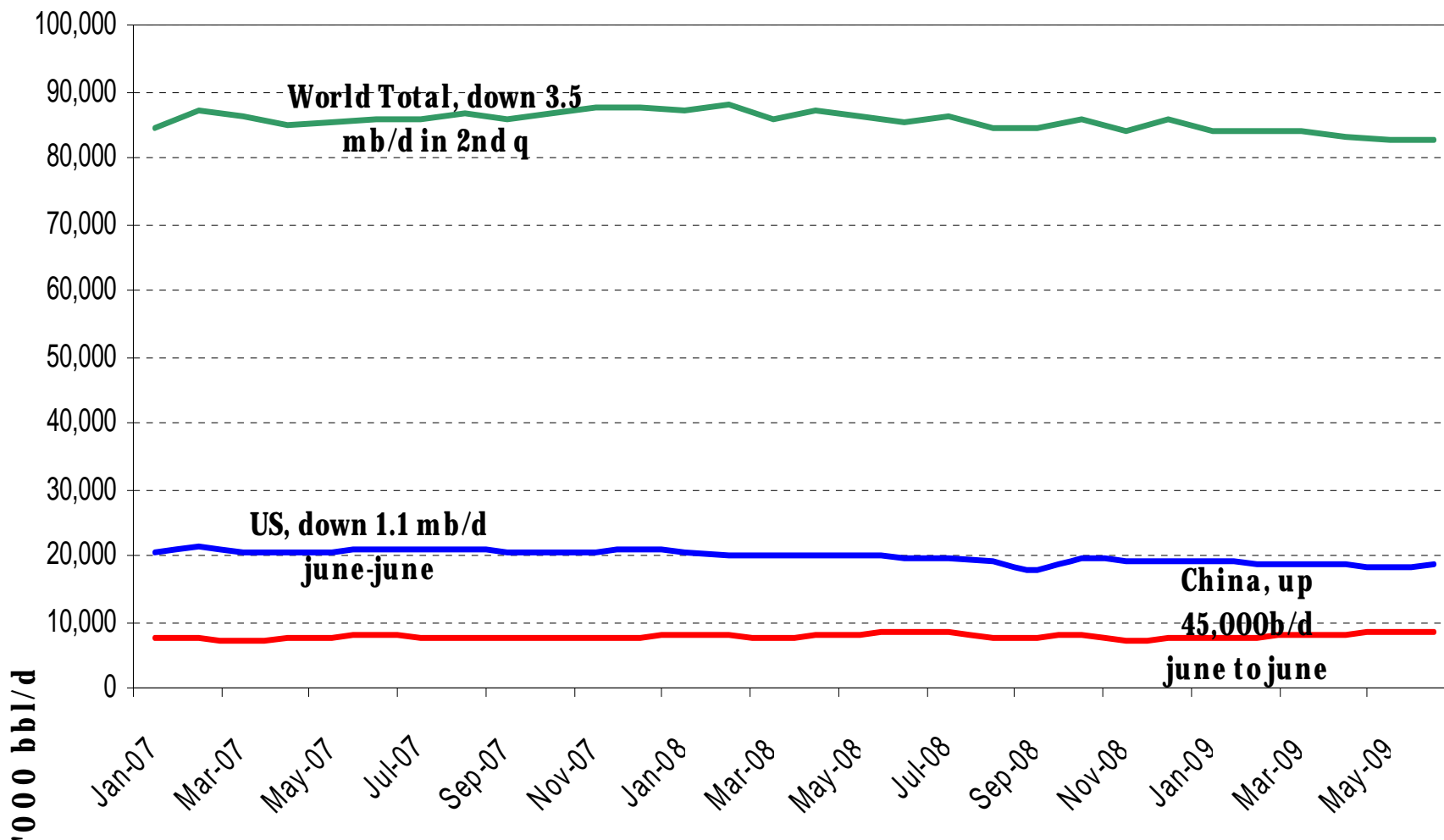
## How Long Will It Be When Chinese Consumers Are Actually as Important as U.S. Consumers?

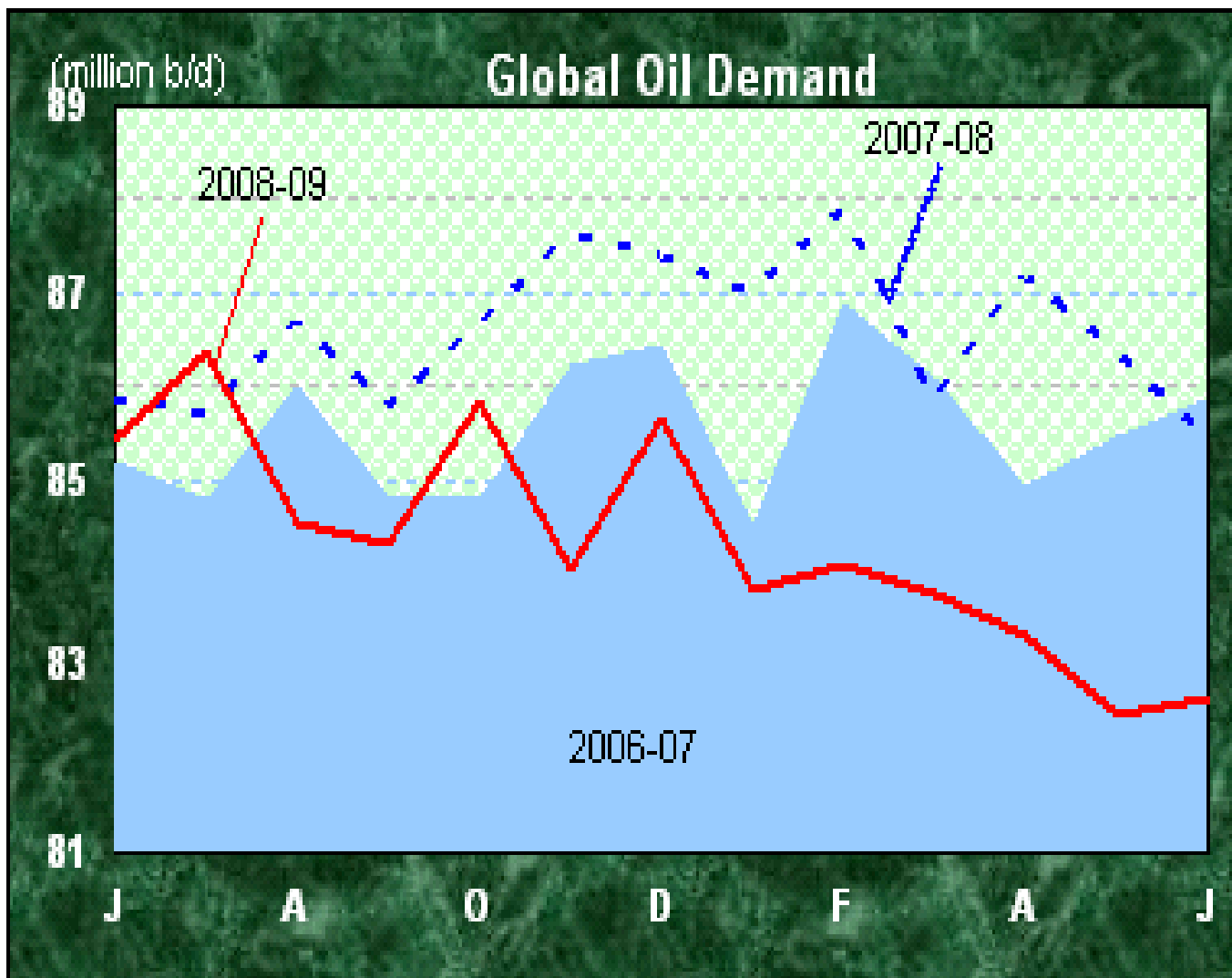
- Myth: China has replaced the US as a “driving” force in oil demand
- 250 million U.S. vehicles vs China’s 26 million civilian cars on the road



## US, China and Global Oil Demand

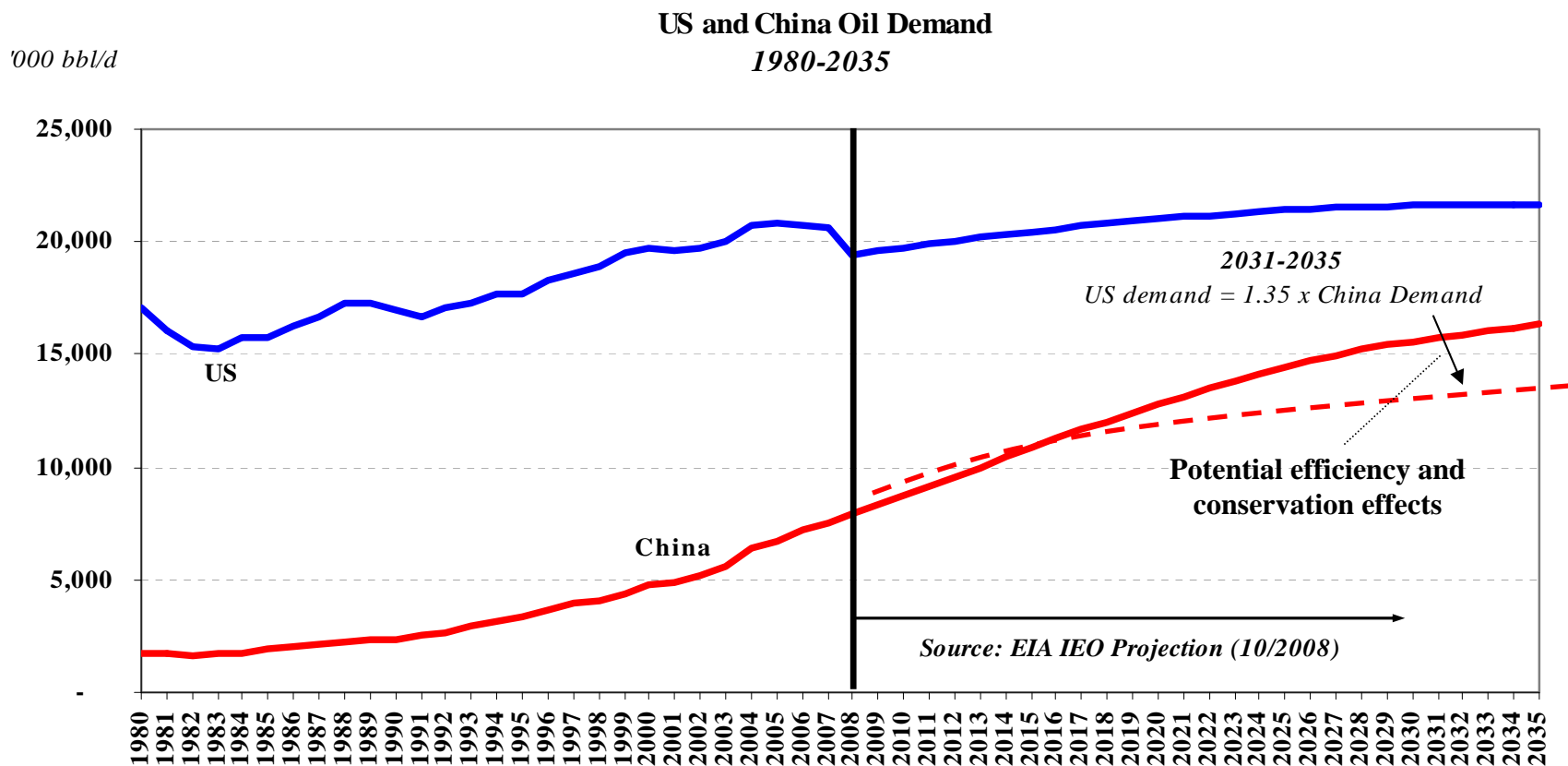
Jan. 2007-Jun. 2009





## Growth rates in China Could Moderate

- ... but where will we be in another 28 years?
  - The forecast is credible, but we must use caution... road petroleum use in China accounts for about 1/3 of total. In U.S., it is about 60%. In the 1980s and 1990s, the U.S. saw flattening industrial demand, and reduced demand in all sectors except transport. Could the same thing happen in China? If so, shave the forecast by about 4.5 million bbl/d, according to Baker Institute analysis.

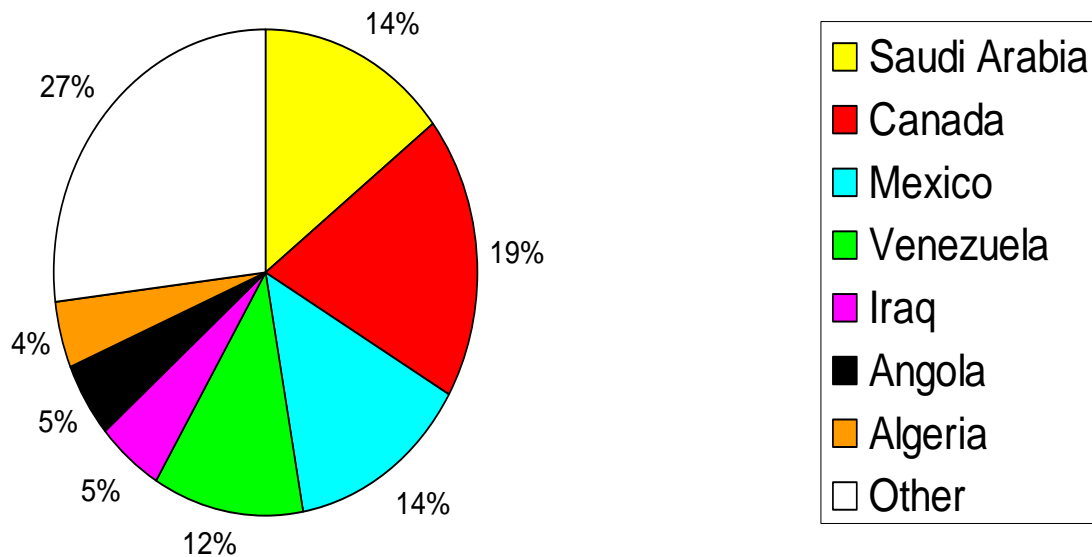


# **Can The United States Wean Its Thinking Away from Cold War Constructs When It Comes to Oil?**

## **Cold War Lenses Cause:**

- Overemphasis on the Caspian
- Failure to recognize the importance of Latin America and Africa as the key U.S. suppliers
- Obsession with the “competition” from China when the U.S. and China should be pursuing parallel interests
- Old-style military buildups/military sales to the Persian Gulf: Are they helpful or destabilizing?

## US Crude Oil Imports (mil bbl/d)



## **Climate and Energy Security Policy Will Focus Heavily on Promoting or Regulating Automobile Efficiency**

- Most forecasts indicate that future growth in global oil demand will come almost entirely in the transportation sector
- Technology and policy, therefore, will be vital to determining the pace of oil demand growth
  - European demand has been flat due to effective policies
  - U.S. is now following suit
    - California Low Carbon Standard aimed to drive innovation in the efficiency of vehicles and alternative transportation fuel
  - The extent to which China and India, in particular, also get into the act is very important to future demand growth in developing Asia

## In general, policy makers have a range of tools to affect demand

### Objectives

### Examples

### Potential Issues

#### Reduce

#### Replace

#### Offset

1

**Vehicles**  
increase mpg



Fuel and vehicle efficiency

Rebound – consumers drive efficient vehicles further

2

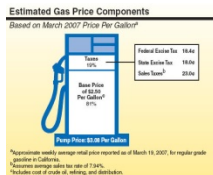
**Driving**  
reduce miles driven



Congestion charge, transit lanes, road tolls, telecommuting, land use policy

3

**Taxation**  
reduce miles driven



Taxation on gasoline or reduced duty on cleaner fuels: Taxation on carbon of imported fuels

Trade Relations Problems

4

**Fuels**  
lower CO<sub>2</sub> per gallon



Biofuel content in fuel mix

Fuel vs. Food

5

**Carbon Markets**



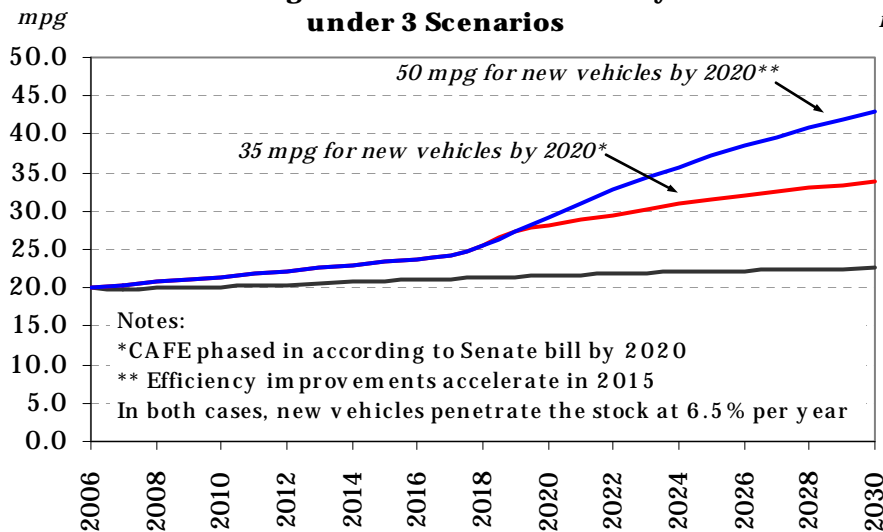
Emissions trading scheme, carbon neutral products and services

CO<sub>2</sub> leakage problems; verification issues; market design problems

## New U.S. Efficiency Standards Will Reduce U.S. Oil Demand

- Green advocates are influential in the Obama administration and are focused first and foremost on “efficiency” improvements (ala state of CA)
- Core Obama administration officials favor electric plug-in cars; CA pushing for electric car agenda
- Similar trends hold in many countries. Obama Administration may push auto efficiency as part of global climate agreement
- Policy can be multi-pronged in its approach
  - A technological breakthrough, such as with plug-in hybrid vehicles, could push demand lower into the future. Once these alternatives are adopted, the market is forever changed
  - Biofuels can induce even further reductions in demand

**U.S. Light Vehicle Fuel Efficiency under 3 Scenarios**



**U.S. Motor Fuel Use under 3 Scenarios**

