



National Association of Steel Pipe Distributors

June 10, 2011

**Dr. Loren C. Scott
Loren C. Scott & Associates, Inc.
www.lorencscottassociates.com**

A red ribbon is attached to the top-left corner of the slide, with a white light effect emanating from its tip.

Oil & gas extraction

Industry under attack

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#1: The oil spill

Things to consider



Fisheries

The media “darling”



Oil Spill Impacts: Fisheries 2011

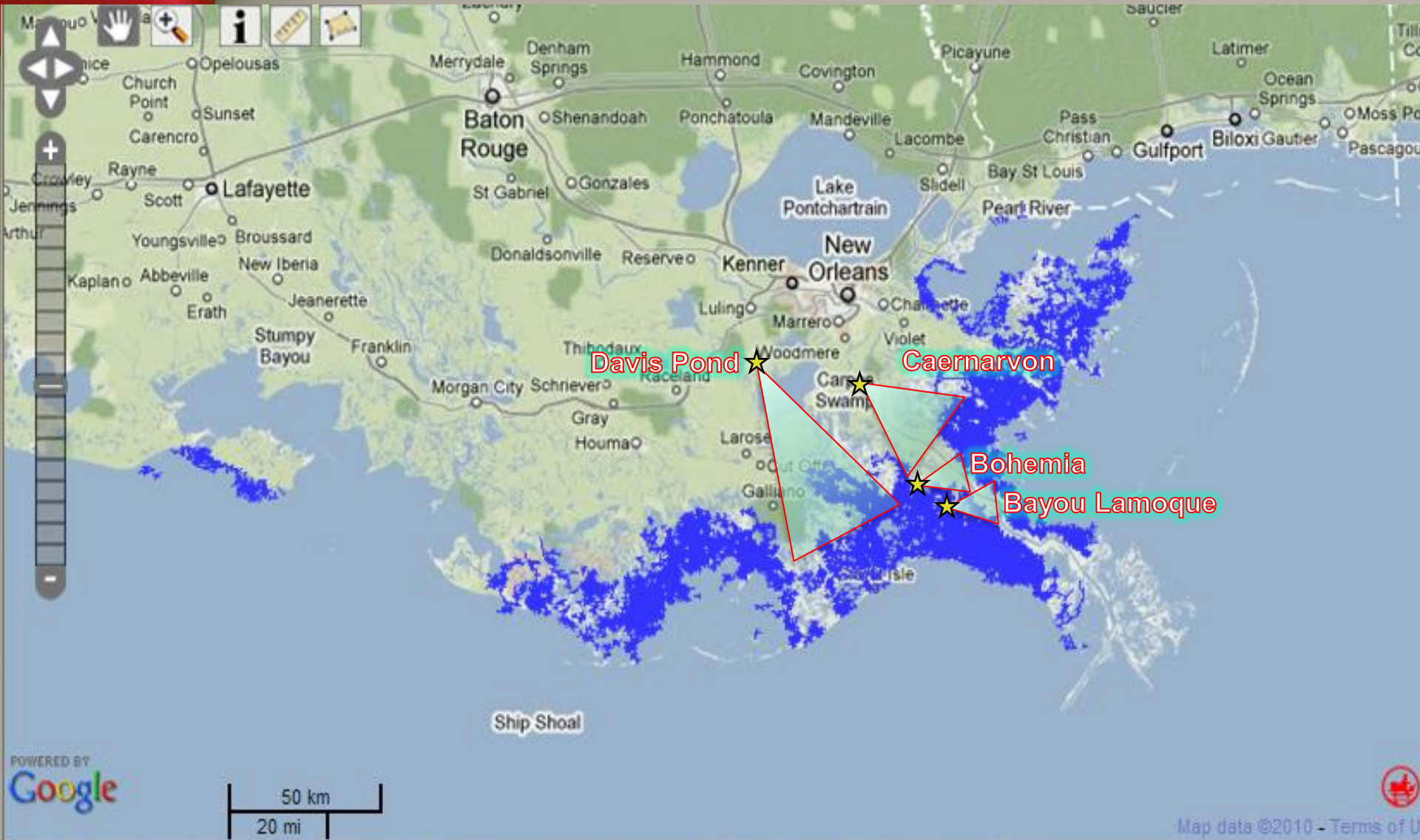
**LC50: concentration of oil expected
to kill 50% of animals exposed for
96 hours**

LC50 by Specie

(BP Spill about 1 ppm)

<u>Specie</u>	<u>Adult</u>	<u>Larva</u>
• Oysters	300 ppm	0.1-1.0 PPM

Risk to Oysters



LC50 by Specie

(BP Spill about 1 ppm)

<u>Specie</u>	<u>Adult</u>	<u>Larva</u>
• Oysters	300 ppm	0.1-1.0 PPM
• Shrimp	30 ppm	0.1-1.0 ppm
• Blue Crab	70 ppm	0.1-1.0 ppm
• Fin fish	Swim away	

“Recruitment” Issue

- **How many babies (larva) killed by spill?**
- **Versus:**
- **How many more babies will be created in 2011 because so many more adults are around to spawn due to fishing ban?**

“Quality” Issue

- **Is the seafood “bad”?**
- **LWF:**
 - **1,286 samples taken**
 - **Traces of PHA in 709**
 - **Traces of DOSS in 13**
 - **None high enough to be a threat to public health**
- **Did we ruin our brand with our complaints?**

Bottom Line for LA, MS & AL Economies

- **Fisheries small in the impacted economies**
 - LA #2 in fish catch; total landed value in 2008: \$278 mm (**0.1% of Louisiana gross state product**)
 - Total value along northern GOM coast: \$661.4 mm
- **Ditto for recreational fishing: \$108.1 mm in LA**
 - Many will make more \$s from cleanup than from fishing
 - BP hired 1,300 boats @ \$1,200-\$3,000 per boat, per day + \$200 a day per deck hand.

Tourism Impact

- **Geographically limited, bad in summer 2010, bad in Fall 2010 due to perception problem, recovering in 2011.**
- **Geographically limited: from East of Mobile Bay to tip of FL**
- **About 50,000 condos from Pensacola to Panama City**
- **Economies here are tourism and military**
- **Little impact to the East – LA & MS & TX**

Tourism/Recreation Sales Taxes

MSA	3/10	8/10	2/11
Ft. Walton	6.8%	-20.2%	1.0%
Panama City	11.4%	-10.4%	4.8%
Pensacola	5.8%	-0.8%	9.4%

Bed Taxes: NW Florida

March 2010	August 2010	February 2011
-0.3%	-24.4%	3.6%

Where Is the Oil?

- **4.9 million barrels spilt**
 - **Reported captured: 1,345,859**
 - **Leaves 3,556,141**
 - **Some evaporated (Louisiana Sweet)**
 - **Some burned**
 - **Some cleaned with dispersants**
 - **“Solution to pollution is dilution”**
 - **Gulf contains 15 quadrillion barrels of water**

The Bigger Problem: The Oil and Gas Industry

- **33% of US oil production from the GOM**
- **10% of US natural gas production from GOM**

The Permitatorium

- **BOE approved 39 permits to drill new wells May –March; 3 per month v 13 per month pre-spill**
- **As of May 25th, 16 (of 33) deep water permits authorized since 2/28/11; Shallow water back to full**
- **Seven drillships have left the GOM**
- **More stringency really needed?**

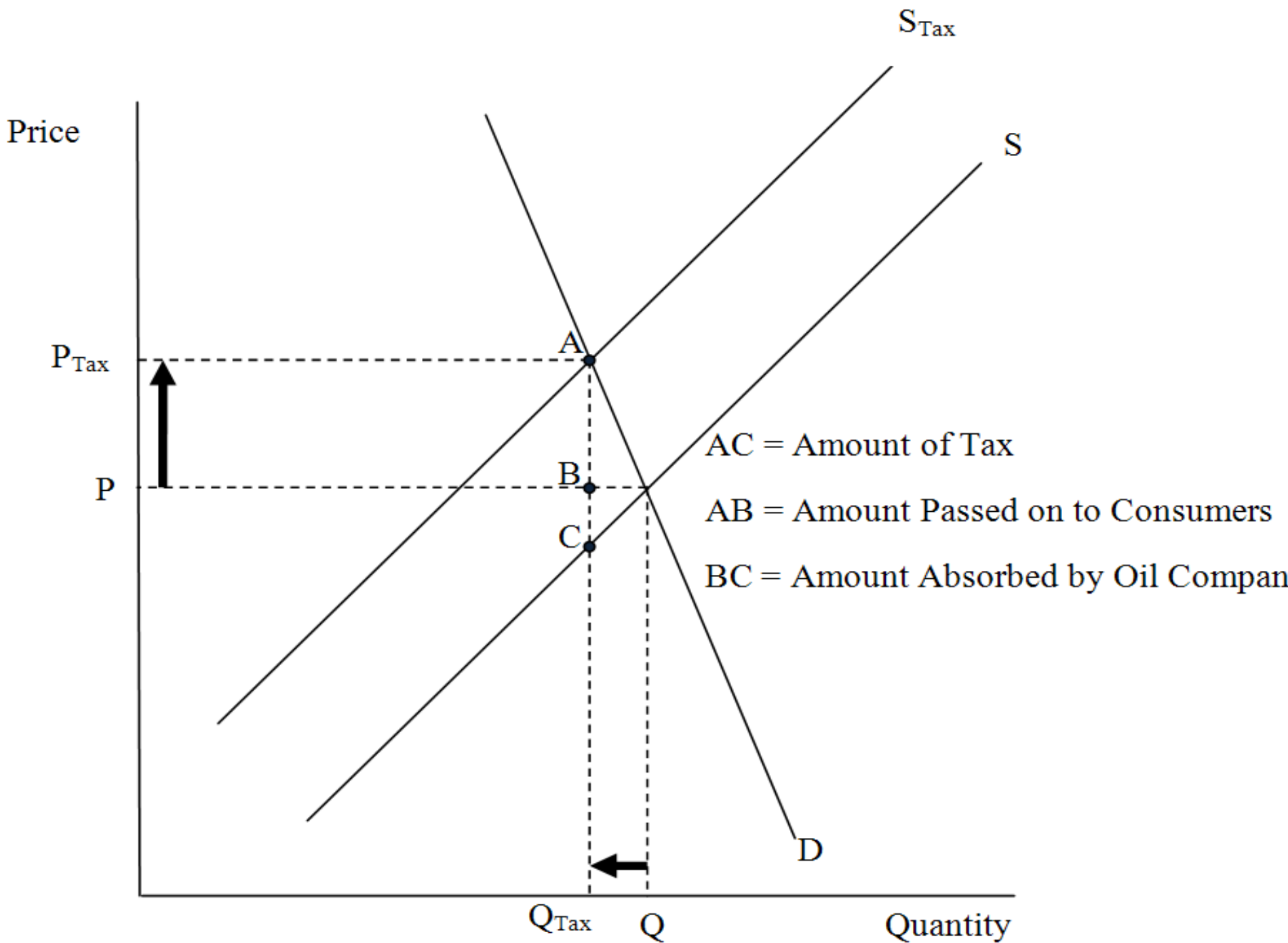
55,000 wells drilled with no major spills

The Bigger Problem: The Oil and Gas Industry

- **DOI entry in Federal Register 10/14/10**
 - New regulations add **\$1.42 mm** to cost of drilling a deep water well
- **Impacts of the spill on insurance costs in general**
 - Actuaries in insurance companies have seen the spill: “Oh shoot!”
 - Willis insurance exec:
 - Rates will go **up 10-35%** depending on company history

#2 Obama's Energy Taxes

- **\$4 billion tax on the extraction industry**
 - **Eliminate expensing of intangible drilling costs**
 - **Eliminate allowance for percentage depletion**
 - **Repeal of domestic manufacturing tax deduction for O&G companies, making refiners the only domestic manufacturers not covered by the manufacturing tax credit.**



Oil Companies Don't Pay Taxes

- **Robert Shapiro and Nam Pham study of oil company stock ownership**
- **43% owned by mutual funds and asset management companies that have mutual funds**
 - **55 million Americans**
 - **Medium income: \$68,700**
- **27% owned by other institutional investors like pension funds**
 - **2004: 2,600+ pension funds run by federal, state and local governments held \$64 billion in oil company shares**
- **14% held in IRA's and personal retirement accounts held by 45 million Americans**



“Big Oil”

In list of top 20 holders of oil reserves in the world, where does ExxonMobil rank?

Top 20 Oil Reserve Holders: 2009

- 1. Saudi Arabia Oil
- 2. Nat'l Iran Oil
- 3. Iraq Nat'l Oil
- 4. Kuwait Pet. Corp.
- 5. Petroleos de Venez.
- 6. Abu Dhabi Nat'l
- 7. Libyai Nat'l Oil
- 8. Nigerian Nat'l Oil
- 9. Qatar Pet. Corp.
- 10. OAO Rosnett
- 11. OAO Lukoil
- 12. Sonatrach
- 13. PetroChina
- 14. Petrolas Mexicanos
- 15. Petroleo Brasileiro
- 16. Sonangol
- 17. ExxonMobil
- 18. Total SA
- 19. BP PLC
- 20. Petronas

ExxonMobil

- **World oil reserves: relative size (2009)**
 - **Saudi Arabian Oil: 259.9 billion barrels**
 - **Nat'l Iranian Oil co.: 137.6 billion barrels**
 - **Iraq Nat'l Oil Co.: 115 billion barrels**
 - **ExxonMobil: 9.2 billion barrels**
- **Produces only 1% of world oil output**

Another Attack on Energy Sector: “Idle Iron”

- **9/15/10- NTL 2010-G05: DOI operators in the GOM required to set permanent plugs in over 3,100 non-producing, completed wells with a subsurface safety valve in place w/I 3 years & dismantle 783 production platforms w/I 5 years.**
- **“Ageing infrastructure adds to environmental risk which increases during storm season.”**
- **Plug & Abandon well: 3,100 wells @ \$750,000 per well = \$2.325 billion; Decommission structure: 783 platforms @ \$1.9 million per platform = \$1.488 billion: **total = \$3.8+ billion****
- **LSU estimates: \$1.5-\$2.9 billion**

#4: DOI Directive 12/23/10

- **No economic development on federal land**
- **Authorized Bureau of Land Management to manage onshore acreage, not designated by Congress as wilderness, off limits to development---as “wild lands” to preserve “wilderness value”.**
- **Land area equal in size to California, about 5% of U.S. land mass.**

#5: Secretary Salazar

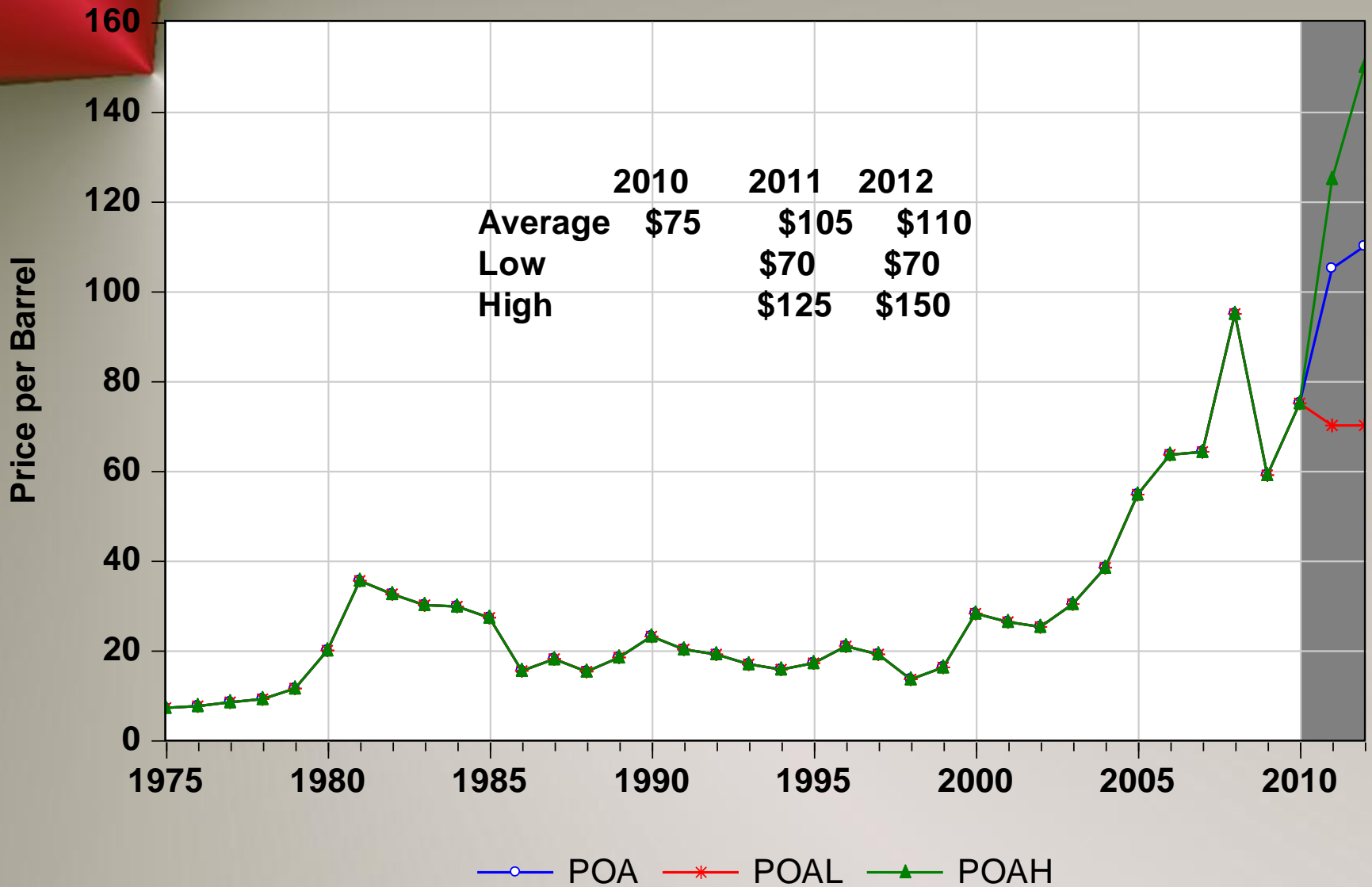
- **12/1/10: Atlantic and Eastern Gulf excluded from 2012-17 outer continental shelf 5-year leasing program**
- **Central & Western Gulf lease sales only after supplemental environmental impact statements completed**
- **2011 lease sales will be delayed & possibly canceled**

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Oil Price Forecast

The onagistic approach

Fig. 1: Oil Prices




Wildcard: Geo-politics

- **Iran's nuclear ambitions (3.6 mmbd)**
- **Nigerian unrest (2.55 mmbd; at 2.0 mmbd now)**
- **Mr. Putin in Russia (10.3 mmbd)**
 - Oil investors can own up to 49%
- **Chavez in Venezuela (2.2 mmbd)**
 - Dismantled “apertura”
 - Raised royalty rates
 - Back taxes during apertura of \$4 billion
- **Iraq:**
 - Now 2.1 mmbd; to 4.6 mmbd by end of 2012
 - But need improved capacity at southern ports to get it out
 - Need \$1.4 billion in 16 new storage tanks & 3 new pipelines in war damaged Faw



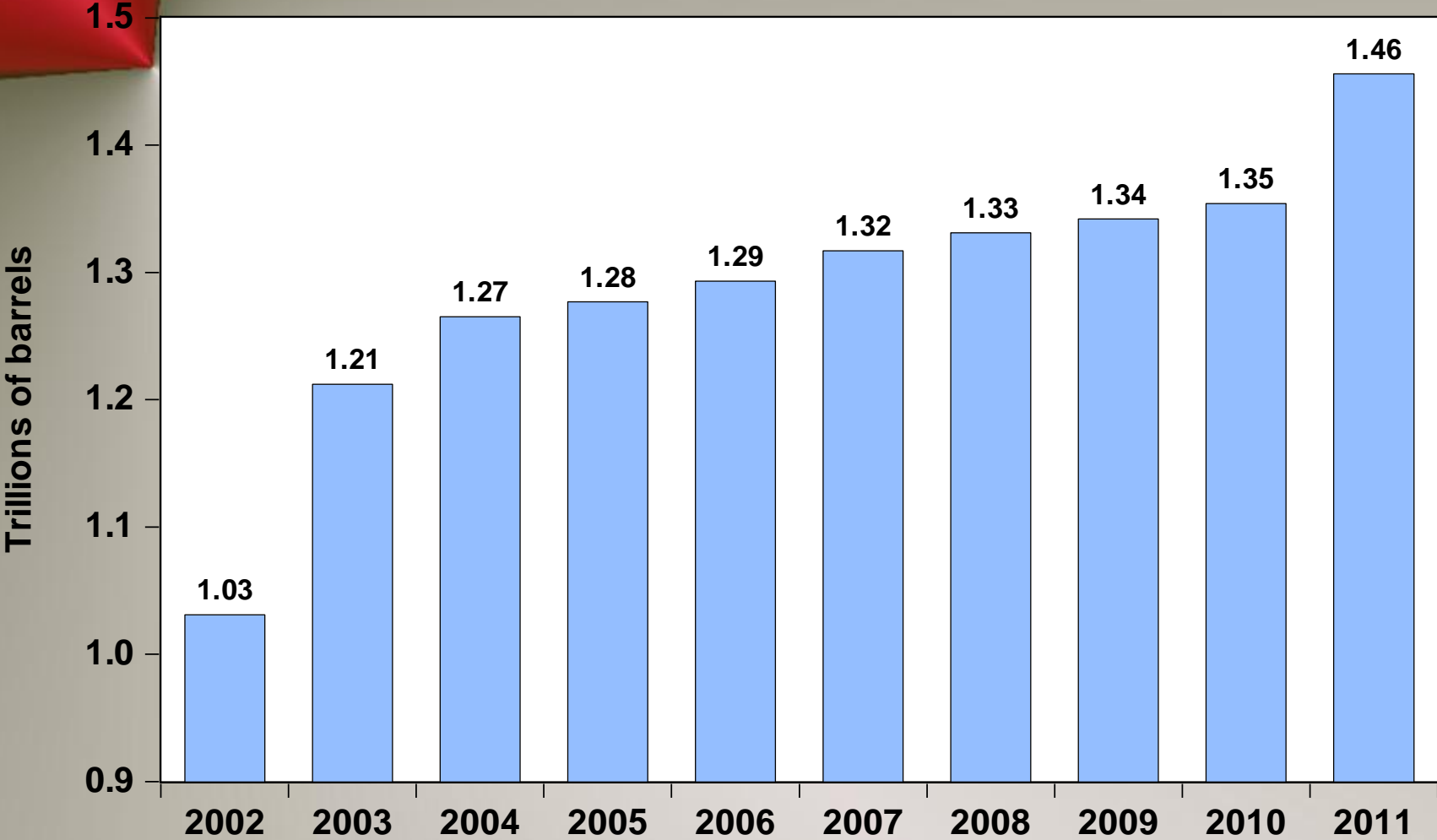
Pro-democracy movement in MENA

- **Watch Saudi Arabia:**
 - minus 8.6 mmbd; spare capacity zero
 - Initially \$200, settling to \$150 per barrel

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**Generally, do not worry
about the supply side**

World Oil Reserves



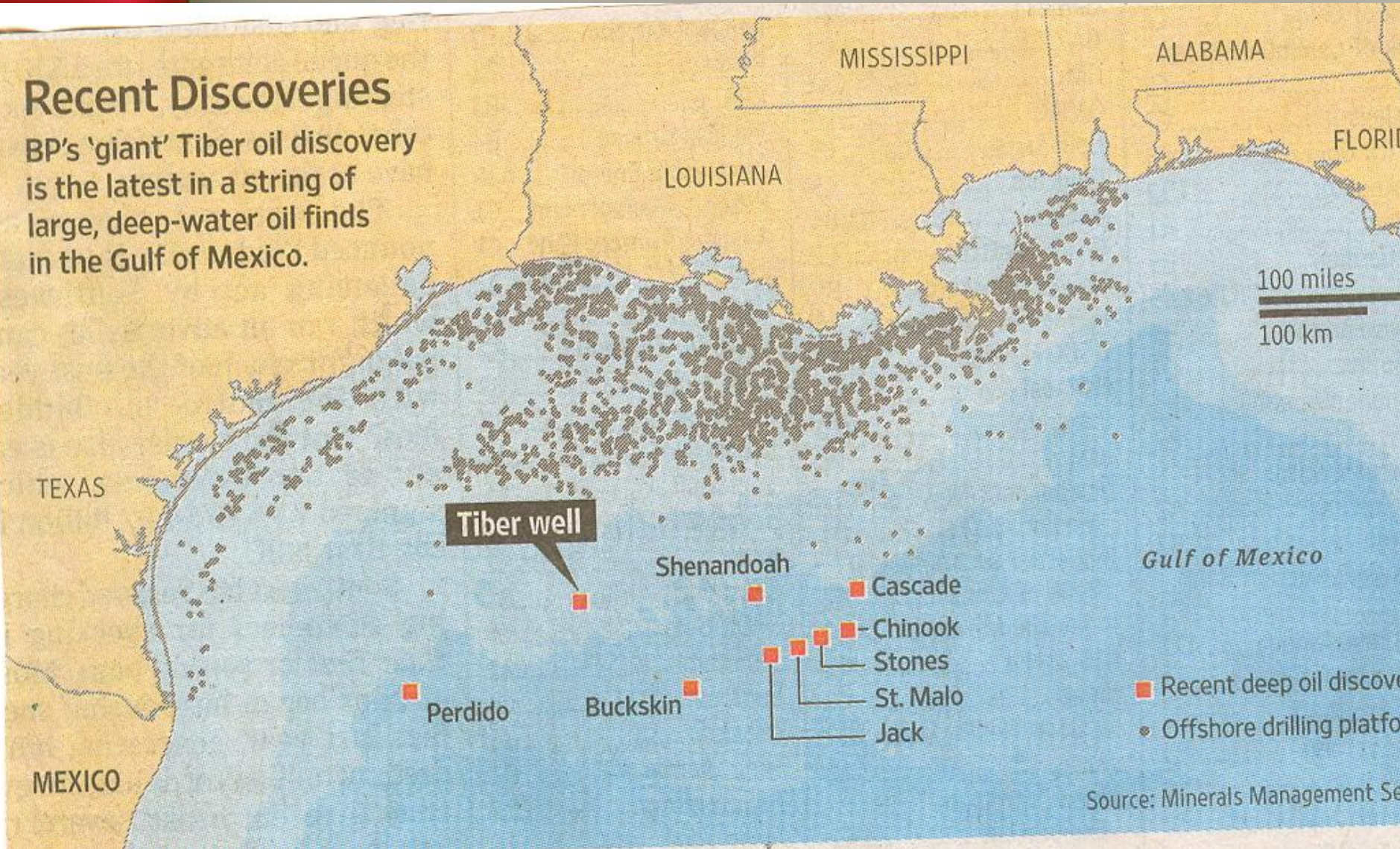
Source: Oil and Gas Journal, December 6, 2101, p.46.

Supply Side

- **Venezuela's Orinoco Oil Belt**
- **Alberta Canada's Athabasca tar sands(need \$50-\$60 barrel oil)**
 - **Estimated 3.5 trillion bbls**
 - **World consumes about 30 Billion bbls a year.**
 - **=100+ years of supply**
- **Offshore Brazil & West Africa**

Recent Discoveries

BP's 'giant' Tiber oil discovery is the latest in a string of large, deep-water oil finds in the Gulf of Mexico.



MISSISSIPPI

ALABAMA

FLORIDA

LOUISIANA

TEXAS

MEXICO

100 miles

100 km

Tiber well

Shenandoah

Cascade

Chinook

Stones

St. Malo

Jack

Perdido

Buckskin

Gulf of Mexico

Recent deep oil discoveries

Offshore drilling platforms

Source: Minerals Management Service



Oil Shale Plays

- **New Technology similar to fracking gas shales**
- **Increase U.S. production by 20% next 5 years**
- **2 mmbd---as much as Gulf of Mexico**

North Dakota's Bakken Field

- **Estimated mean reserves: 431 billion barrels**
 - Slightly larger than Saudi Arabia's reserves
 - 10 times larger than current proven oil reserves of U.S.
- **Difficult & expensive to retrieve:**
 - \$3-\$6 mm per well v. \$1.2-\$2.5 mm conventional
 - No refineries & no space in pipelines in the area (now moving it out by truck & train)
- **2003: 10,000 bbls produced**
- **2010: 400,000 bbls produced---40-fold increase**

Other significant shale plays: Oil Shale “Gale”

- **Tuscaloosa Marine Shale: La and MS**
- **Noibrara: WY, CO, KS, NB**
- **Leonard: NM and TX**
- **Monterey: CA**
- **Eagle Ford: South TX**
- **A total of 20 in U.S.;**
- **CERA says Bakken & 5 others hold 17 billion bbls recoverable---greater than Prudhoe Bay**

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Natural Gas Market and Prices

Very different from oil

Fig. 2: Price of Natural Gas

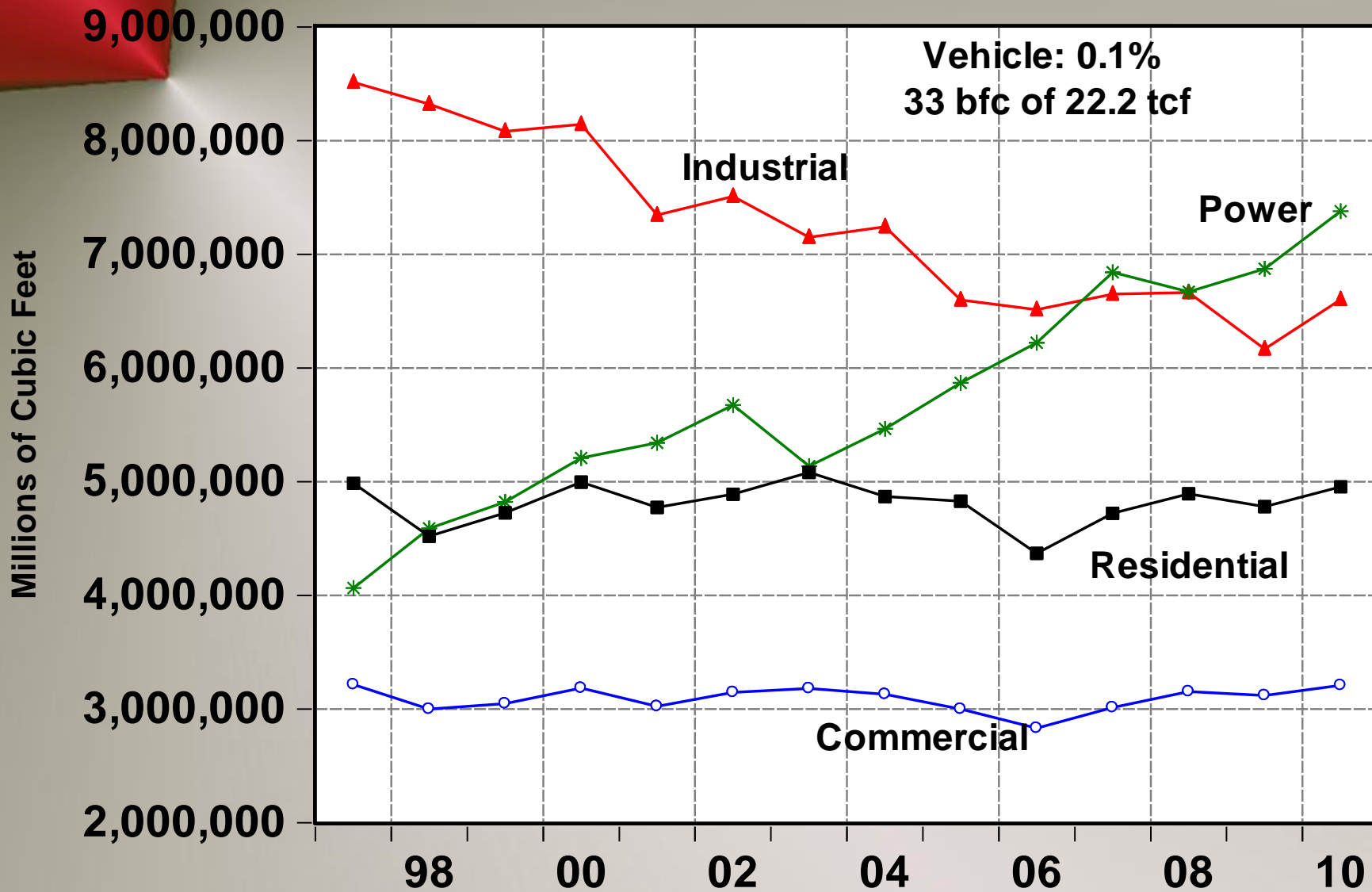




The Demand Side

Some upward pressure on prices

Natural Gas Consumption by Sector



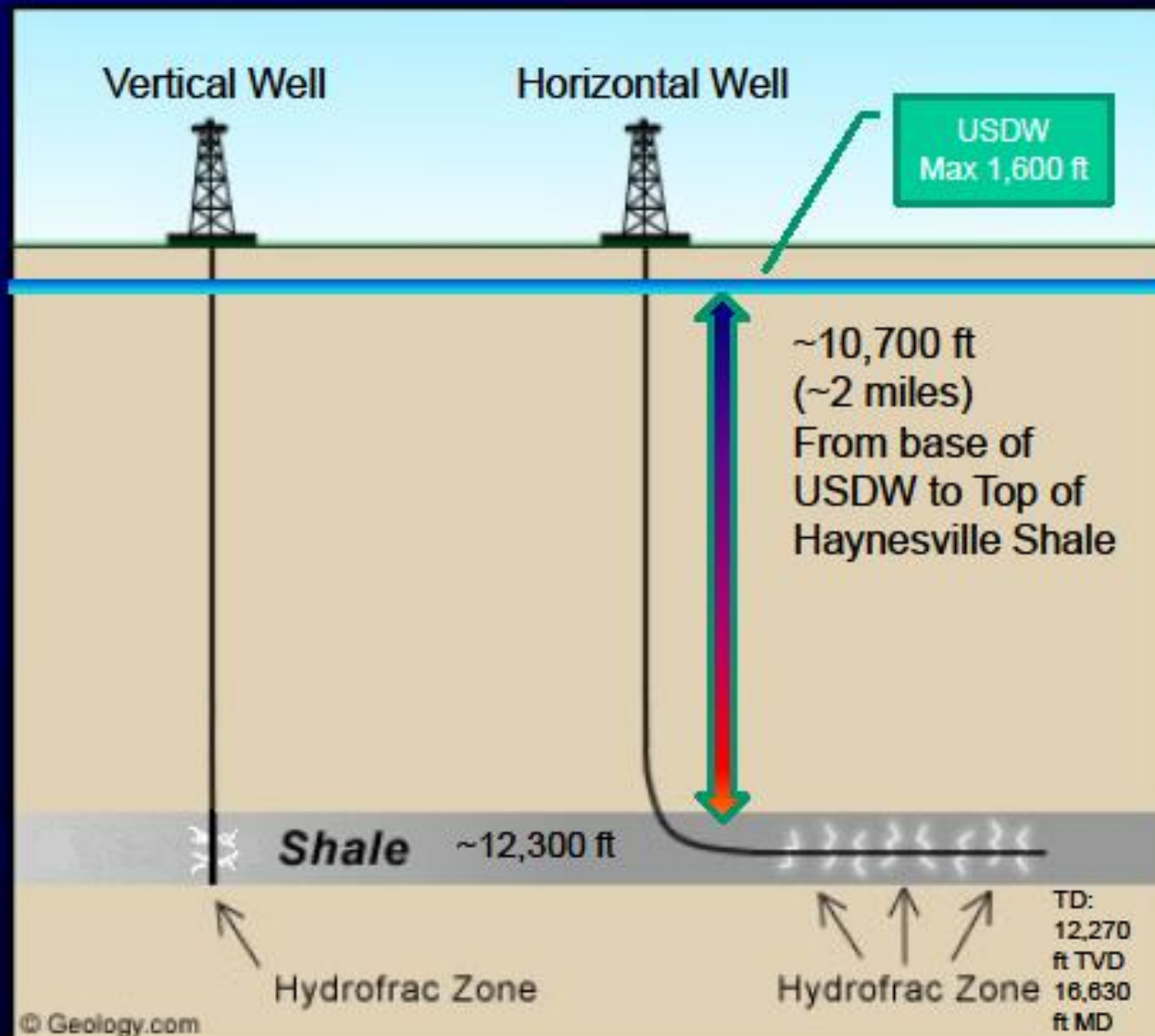
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**Supply side is the key to stable
natural gas prices**



Protection of Water Resources

Accessing the Shale



The Shale Plays

- **Barnett Shale-Texas (97tcf?)**
- **Fayetteville Shale-Arkansas (42 tcf)**
- **Eagle Ford – South Texas**
- **Haynesville Shale-Louisiana (251tcf)**
- **Marcellus Shale – Appalachia (262 tcf)**
- **Canada's Horn River & Montney Shale (500-1,000 tcf)**

Shale Gas Plays, Lower 48 States

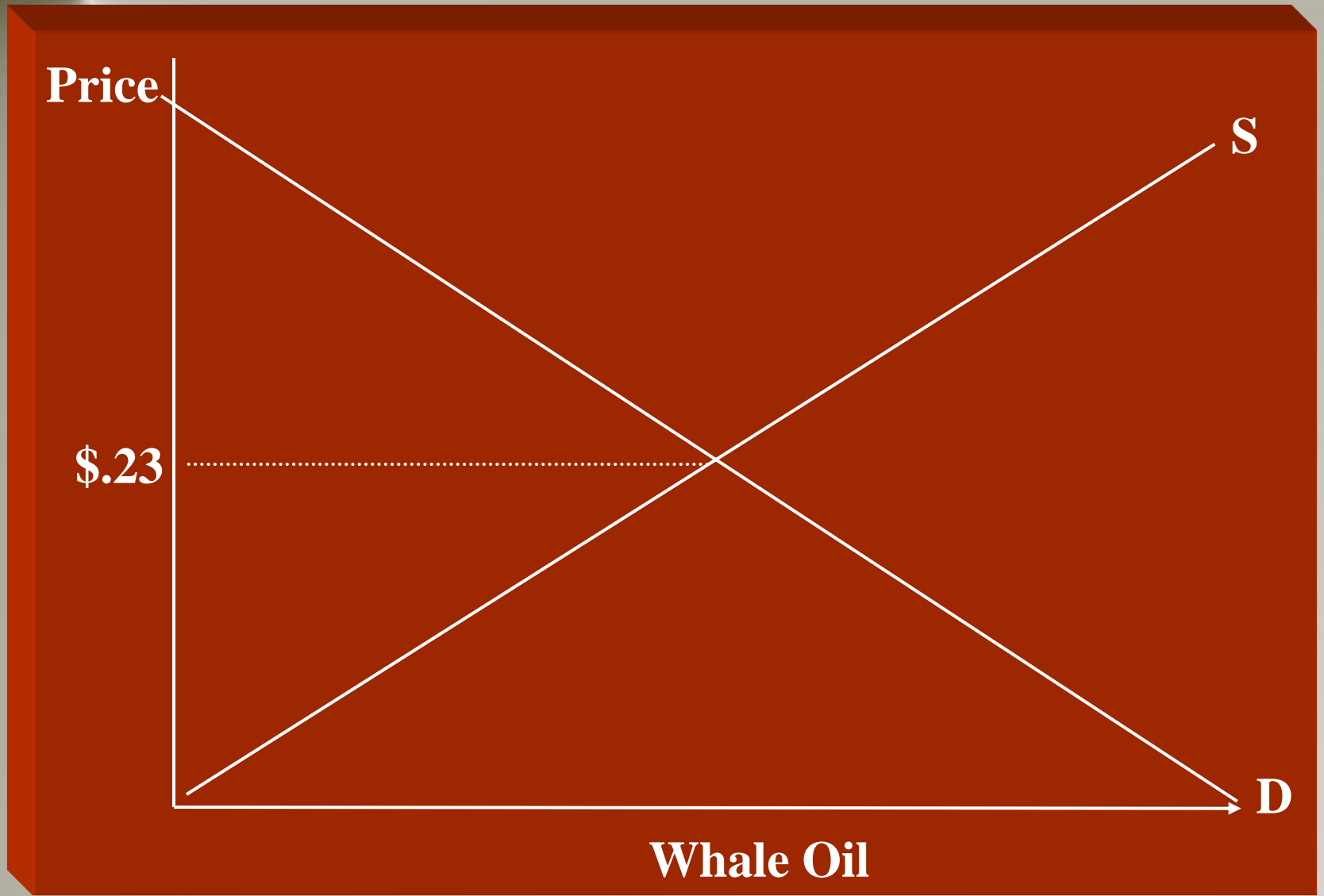


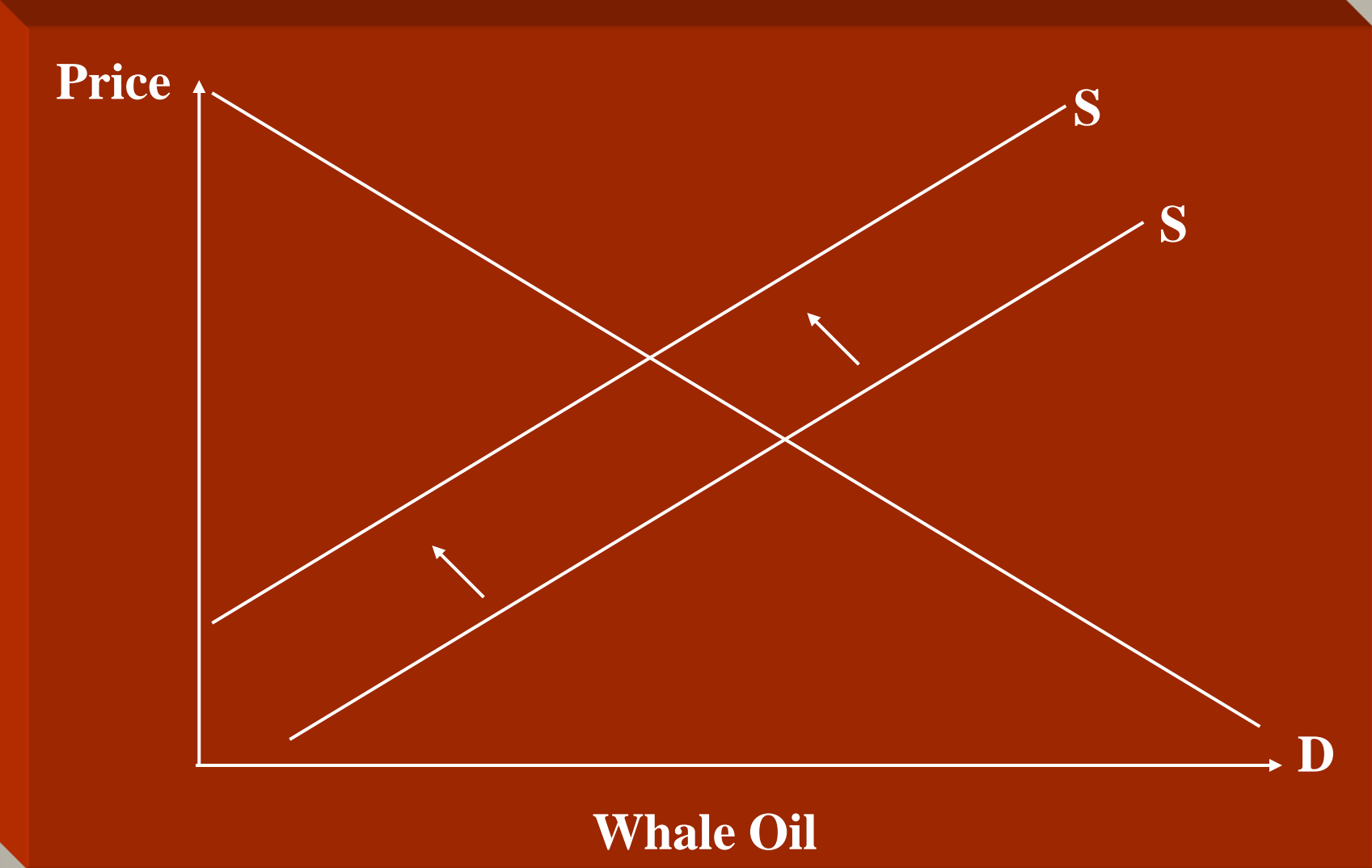
Source: Energy Information Administration based on data from various published studies
 Updated: May 28, 2009



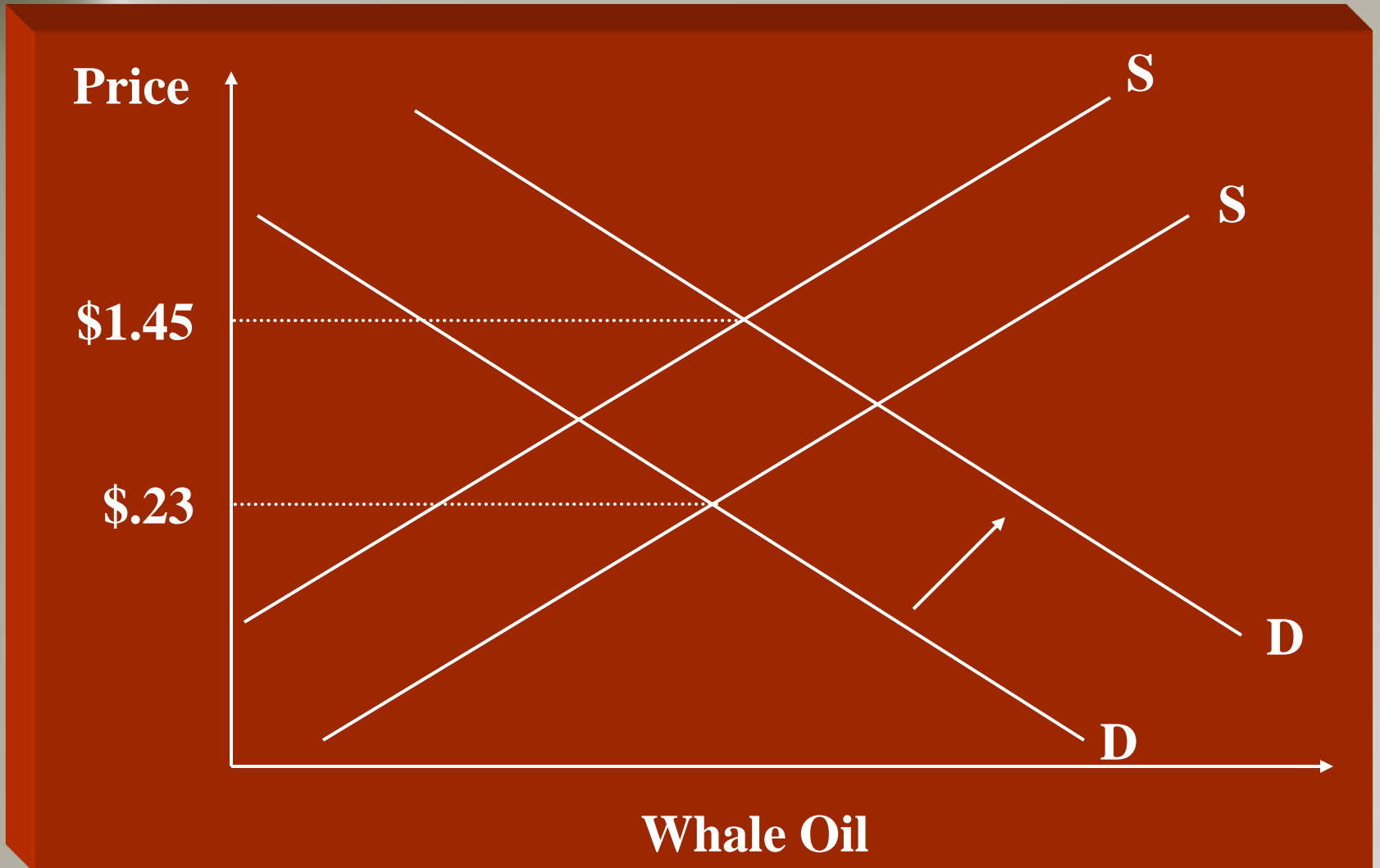
**How can we deal with all these
changes?**

1865

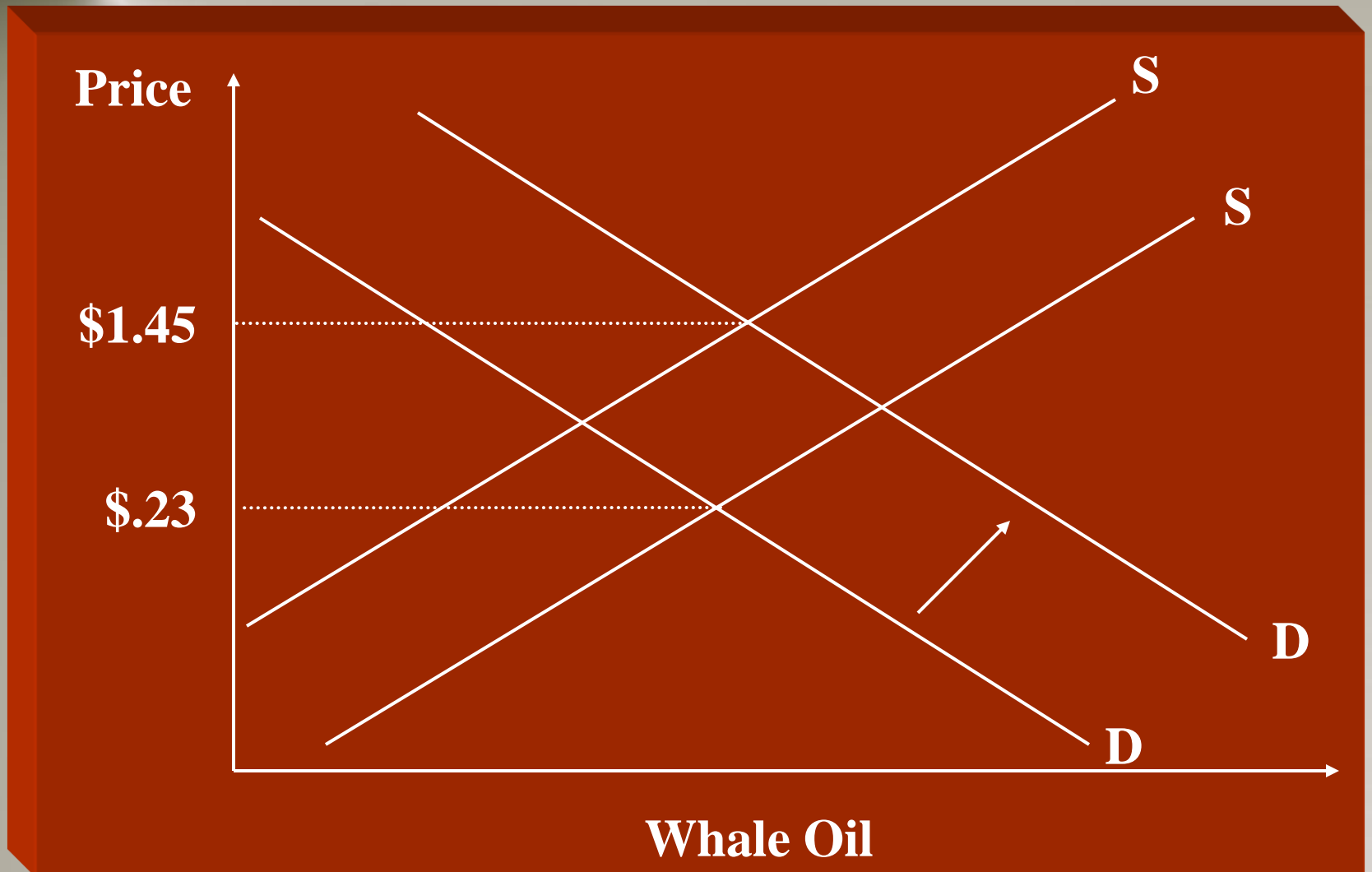




1867



1859: Oil Discovered





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