



Gulf Coast Energy Outlook

Lakeshore Lions Club Meeting
February 16, 2009



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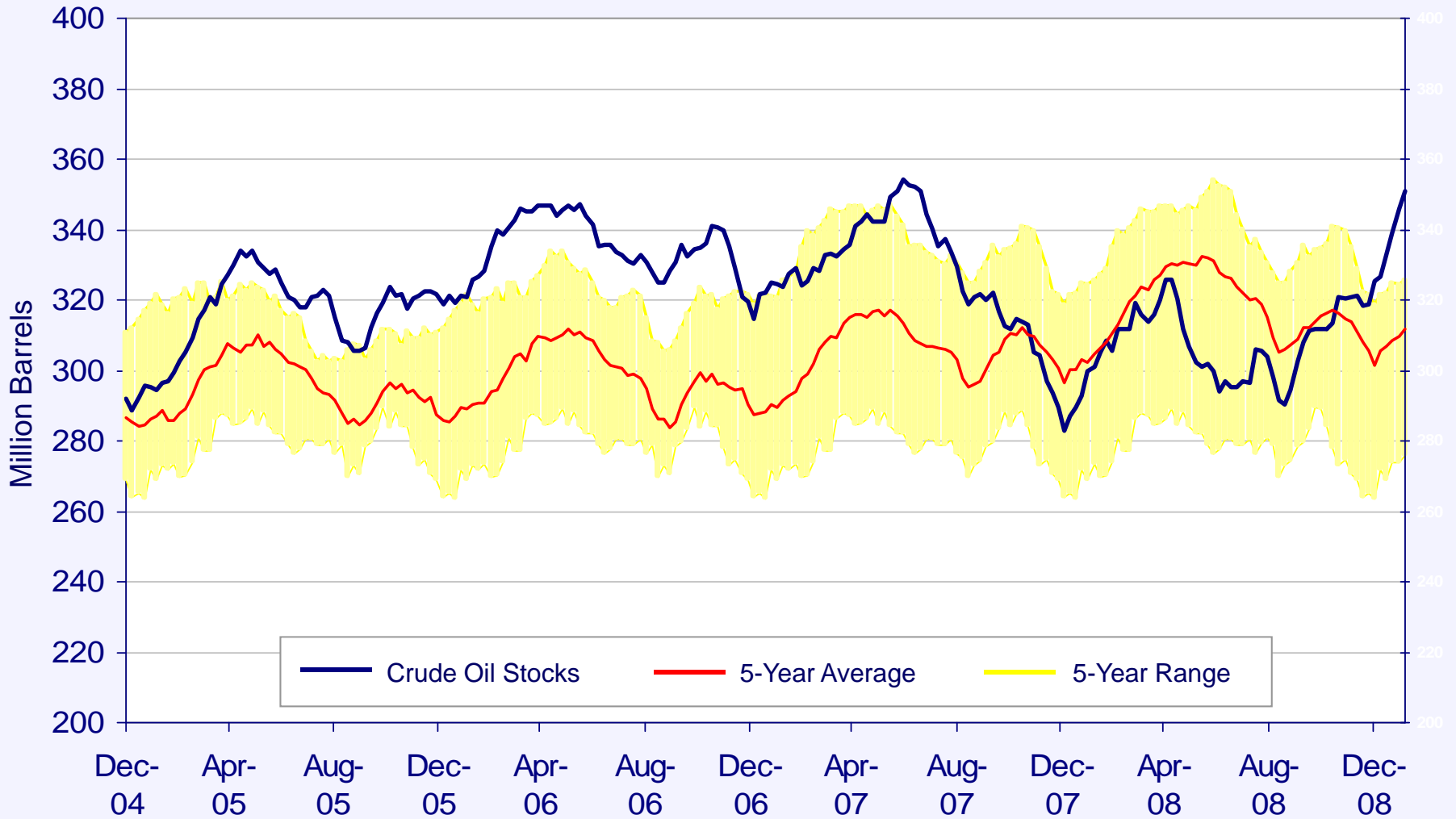
- **Significant growth in storage positions for most all energy commodities and products. Price movements (decreases) reflecting these build-ups.**
- **Production positions getting better including GOM (crude and natural gas). Unconventional resources proving to be significant North American resource (shales, tight sands, CBM, tar sands, EOR).**
- **Additional “frontier areas” likely to become available that will open an exceptional amount of resources for development, 18 Bbbls and 77 Tcf of probable reserves. (i.e., moratoria areas)**
- **Conventional wisdom that economy is heading south, fast. Clearly a downturn worse than 2001-2002. Question: will it look like 1990-1991 or 1981-1982? Could be significant downturns in industrial and power generation gas demand.**
- **Does OPEC matter? If so how and why?**
- **Dollar valuation versus supply/demand fundamentals.**



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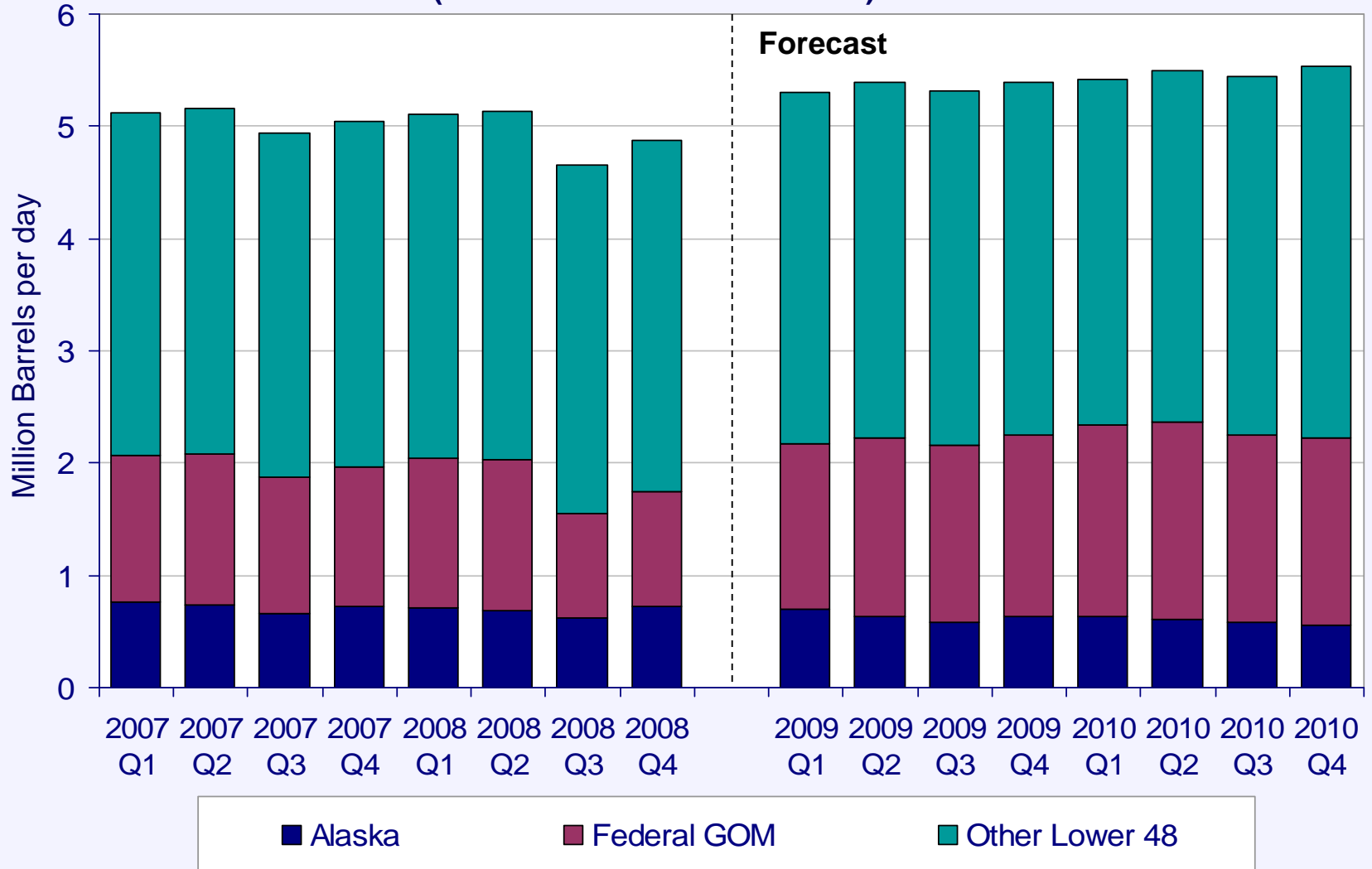
Forecast: Supply, Infrastructure, Demand

Crude oil stocks are above 5 year averages and maximum ranges.



Forecast of US Crude Oil Production

Crude production forecasted to increase considerably due to deepwater GOM (900 MBbls/d to 1.5 MMBbls/d) and EOR.



Publicly Announced Lower Tertiary Trend Discoveries in the Gulf of Mexico

Prospect	Block	Operator	Discovery Date
Trident	AC 903	Chevron	2001
Great White	AC 857	Shell	2002
Cascade	WR 206	BHP	2002
Chinook	WR 469	BHP	2003
St. Malo	WR 678	Chevron	2003
Tobago	AC 859	Chevron	2004
Silvertip	AC 815	Chevron	2004
Tiger	AC 818	Chevron	2004
Jack	WR 759	Chevron	2004
Stones	WR 508	BP	2005
Gotcha	AC 856	Total	2006
Kaskida	KC 292	BP	2006

During the last ten years, the average deepwater field has added over 67 MMBOE of proved and unproved reserves.

About 60 billion barrels of oil found in deepwater fields to date.

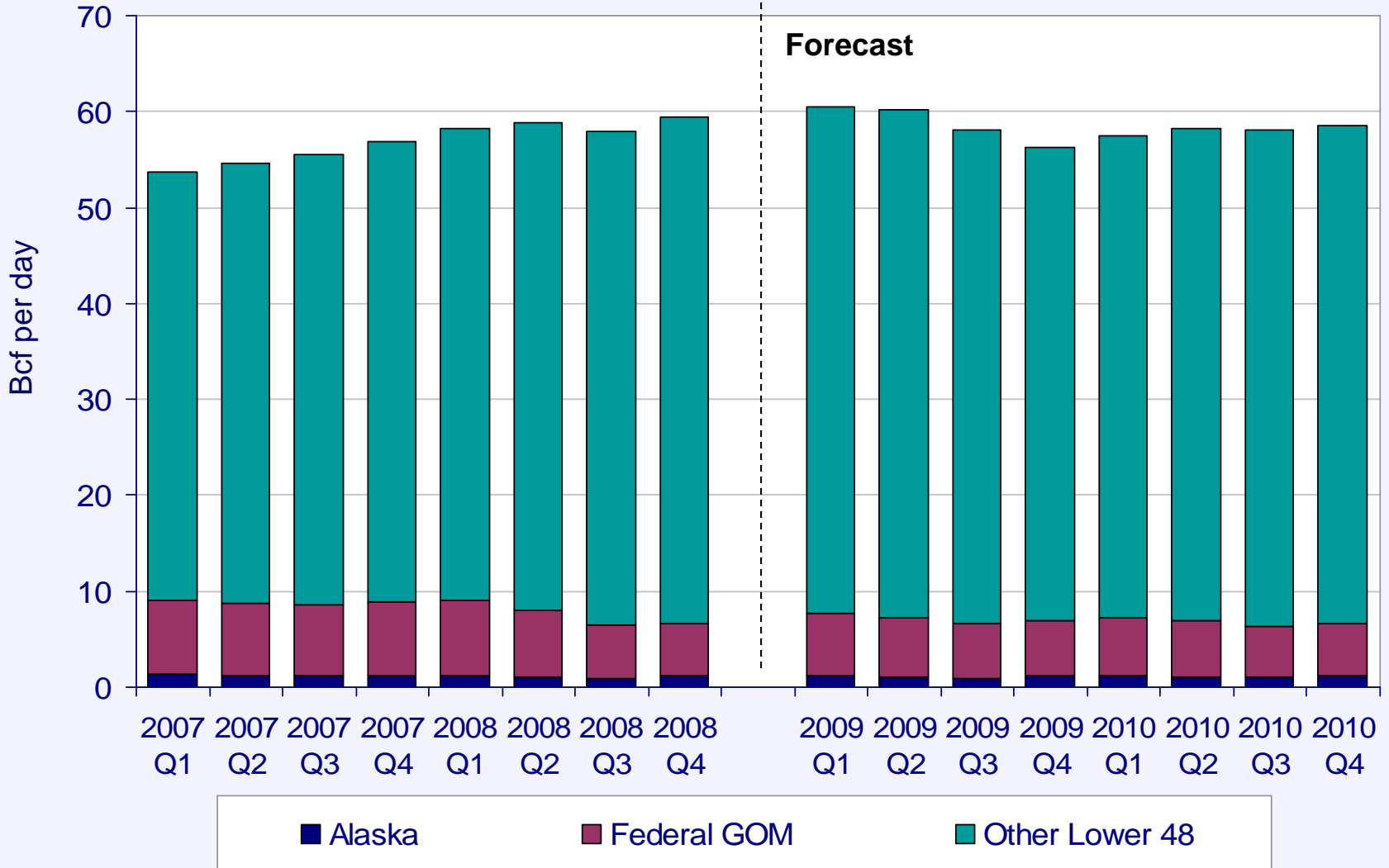
Some 8- to 10 billion barrels have already been produced.

Yet-to-find potential could be 114 billion barrels of oil, and 68 billion barrels of oil equivalent (BOE) of gas. [Oil and Gas Investor, May 2006]

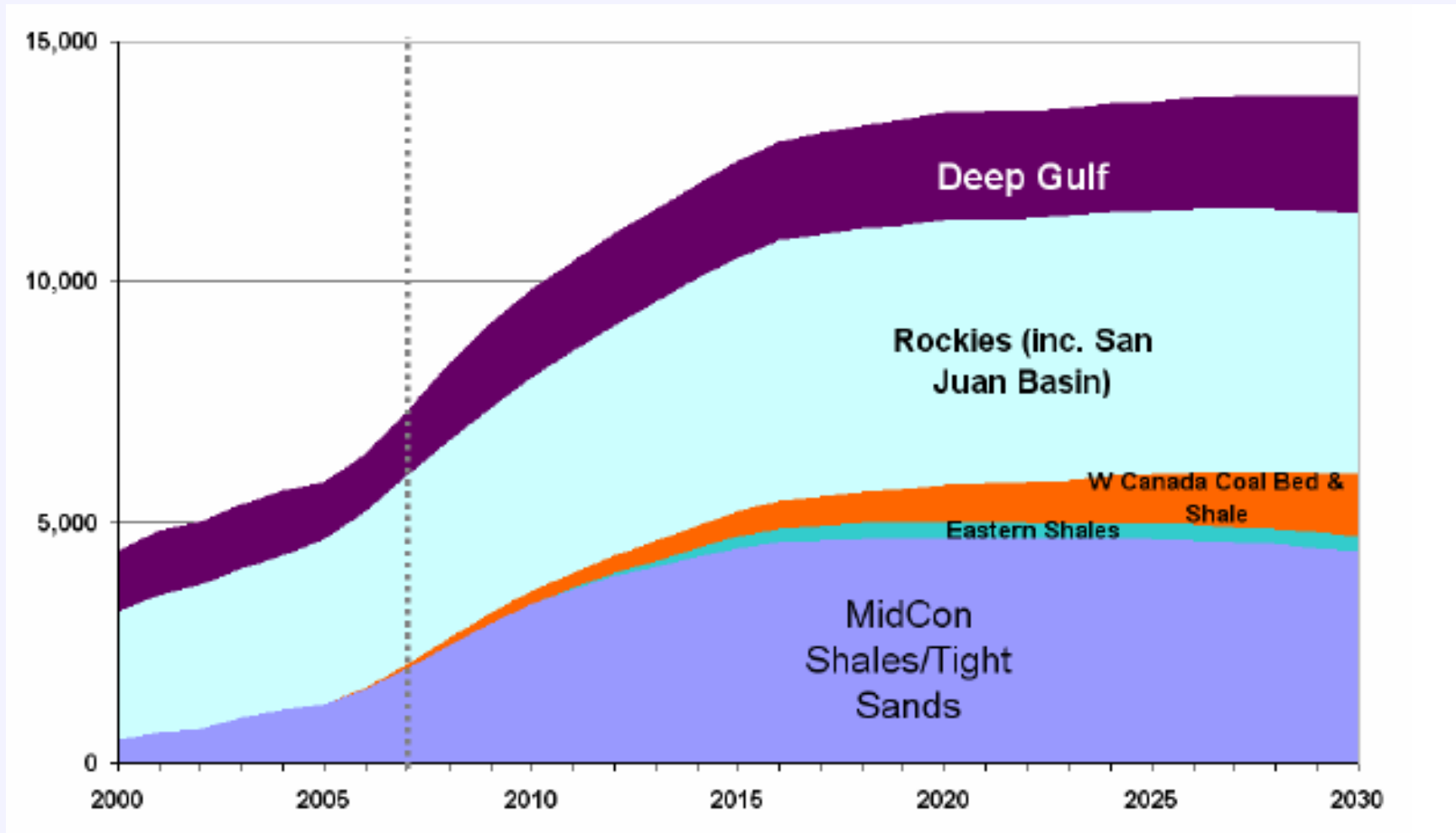


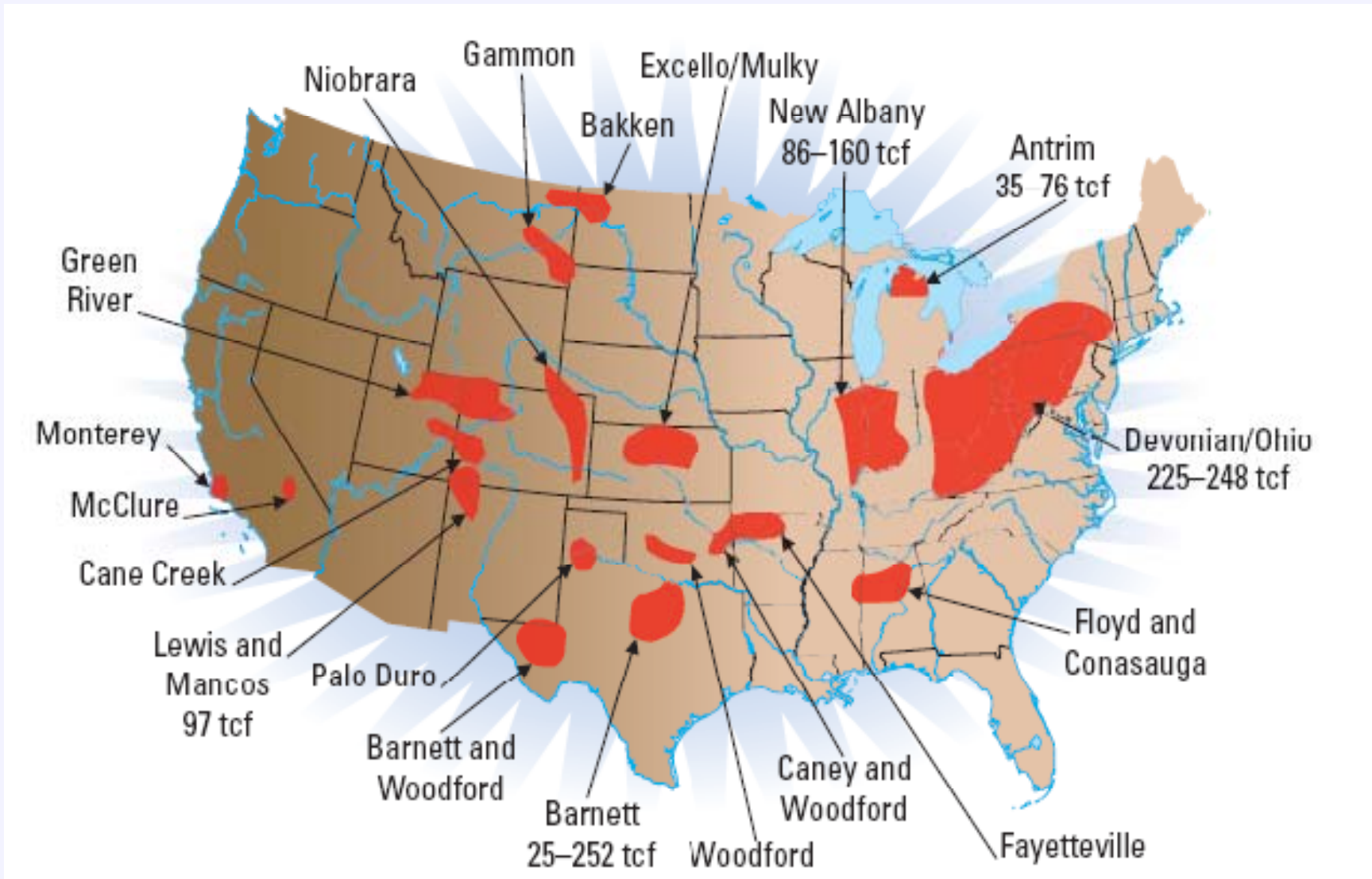
Forecast of US Gas Production

Gas production also forecasted to increase considerably given shale development and GOM deepwater. (44.7 to 52.9 Bcf/d, 18 percent)



Unconventional Gas Production

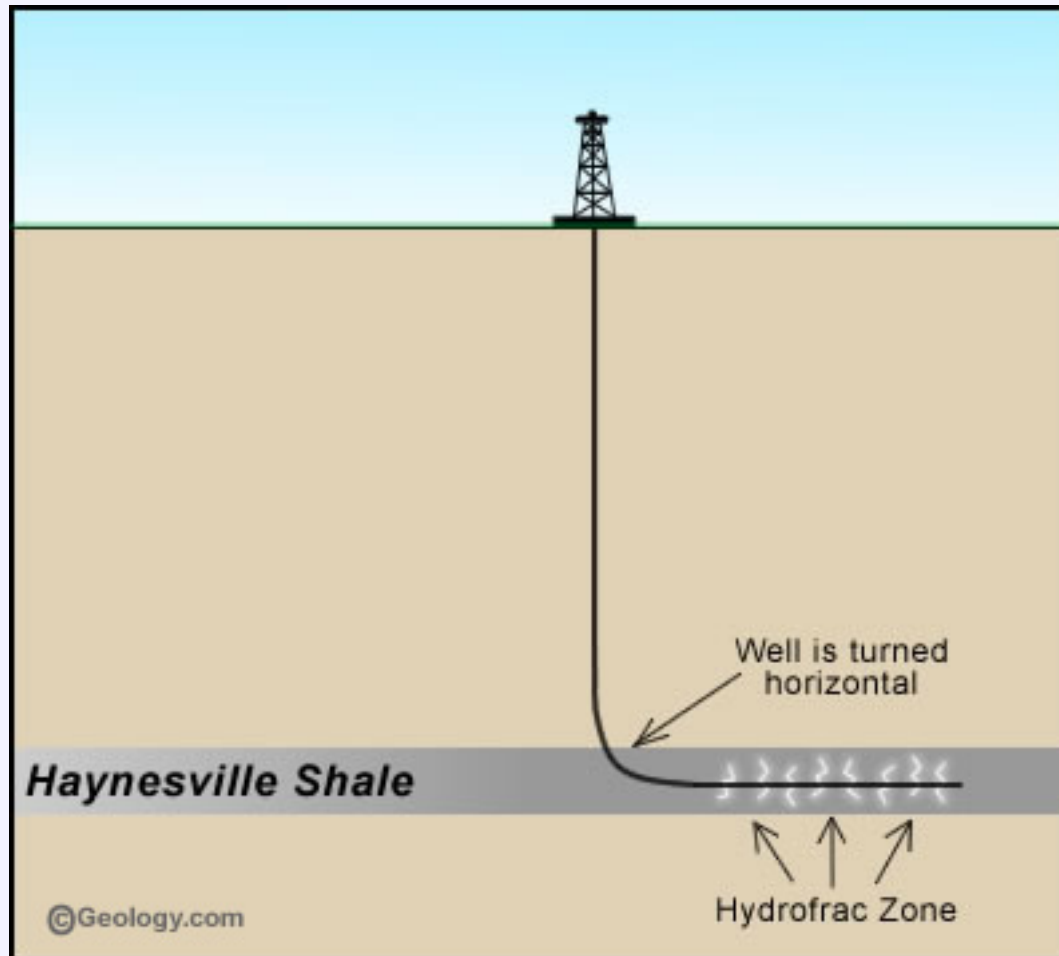




Note: Major shale gas basins in the United States with total resource potential of 500 to 1,000 tcf.

Source: Schlumberger

The productive potential of the Haynesville Shale was not fully realized until horizontal drilling and hydrofracing technologies were demonstrated in other unconventional shale reservoirs. The hydrofracing process helps liberate gas from the shale and horizontal drilling allows a single well to drain a much larger volume of rock than a traditional vertical well.



- Rock formation mainly composed of consolidated clay-sized particles deposited and buried in the north Louisiana geological basin more than 170 million years ago during the geologic Jurassic time.
- Characterized by ultra-low permeability in contrast with the conventional sandstone/limestone reservoir rocks that have high permeability.
- Regarded as the 4th largest natural gas field in North America, with the leading exploration company in the play announcing it is projecting 52 Bcf of gas per section in the Haynesville fairway.



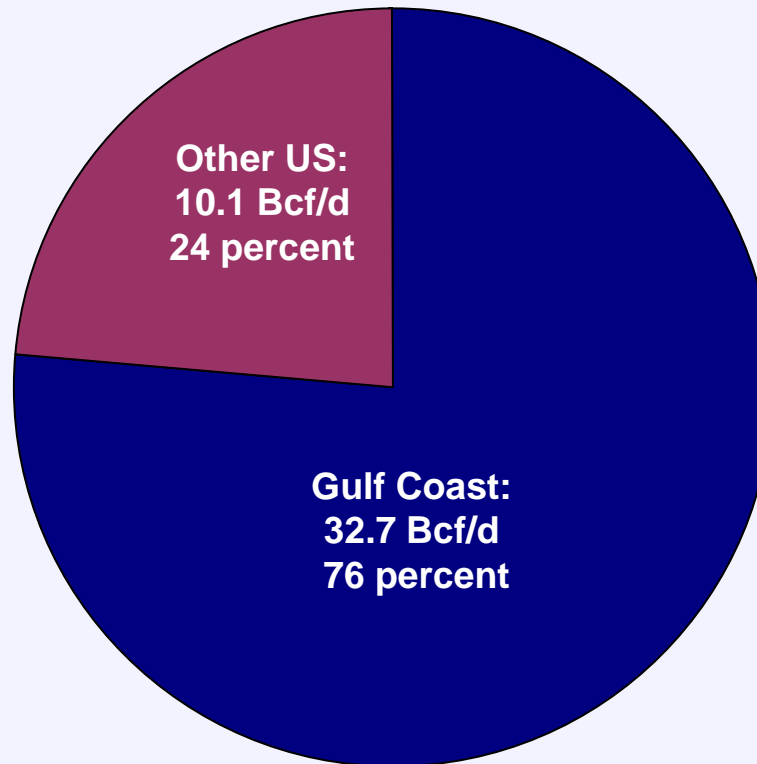
Major Players

- Chesapeake Energy holds at least 500,000 acres. Resource potential could range from 7.5 tcf to 20 tcf, depending on the ultimate size of the leasehold.
- Petrohawk Energy has 150,000 acres and estimates a resource potential of about 6 tcf.
- Devon Energy's Haynesville lease holdings total 483,000 acres.
- Exco Resources holds over 100,000 acres.
- XTO Energy has 100,000 acres.

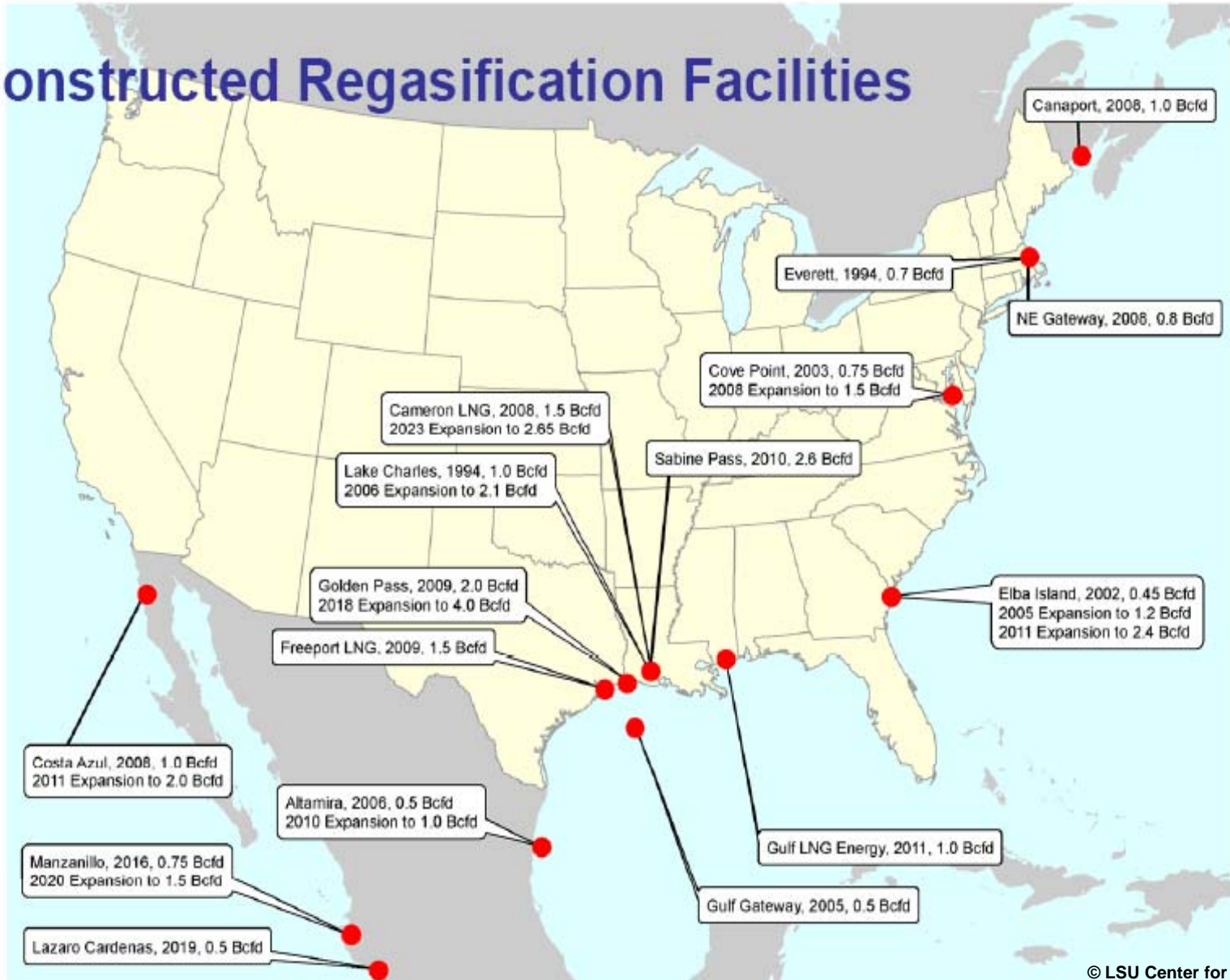
Refinery Announcements

Refinery	Location	Project Type	Capacity (bbl/day)	Announced	Current Status
Arizona Clean Fuels LLC	Yuma, AZ	Greenfield	150,000	1999	in development
Flint Hills Resources	Rosemount, MN	Expansion	50,000	January-05	completed 2007
Chevron Global Refining	Pascagoula, MS	Expansion	15,750	June-05	completed
Tesoro Corporation	Anacortes, WA	Expansion	25,000	June-05	canceled
Frontier Oil	Cheyenne, WY	Expansion	n.a.	July-05	under construction
Wynnewood Refining Co.	Wynnewood, OK	Expansion	15,000	October-05	completed
Marathon Oil Corporation	Garyville, LA	Expansion	180,000	November-05	under construction
Frontier Oil	El Dorado, KS	Expansion	11,000	December-05	under construction
Marathon Oil Corporation	Detroit, MI	Expansion	80,000	January-06	delayed
Coffeyville Resources	Coffeyville, KS	Expansion	15,000	January-06	completed
Motiva Enterprises LLC	Port Arthur, TX	Expansion	325,000	April-06	under construction
BP America Inc	Whiting, IN	Expansion	260,000	September-06	in development
ConocoPhillips	Ferndale, WA	Expansion	25,000	2006	postponed
Connacher Oil and Gas	Great Falls, MT	Expansion	9,500	2007	canceled
Valero	Port Arthur, TX	Expansion	45,000	2008	delayed indefinitely

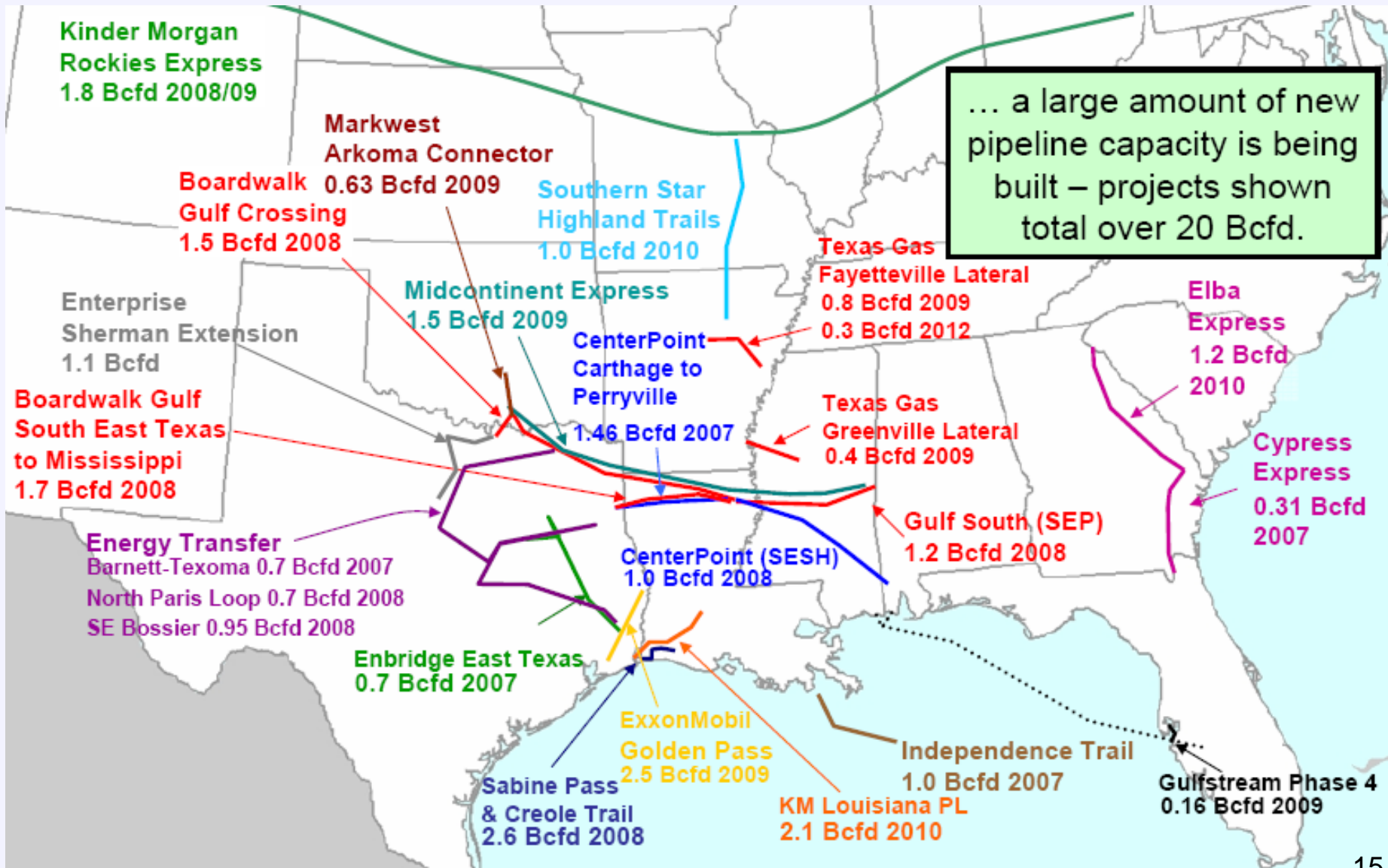
Considerable development of LNG. Some 42.8 Bcf/d of capacity is current approved or under construction.



Constructed Regasification Facilities



Unconventional Gas Production



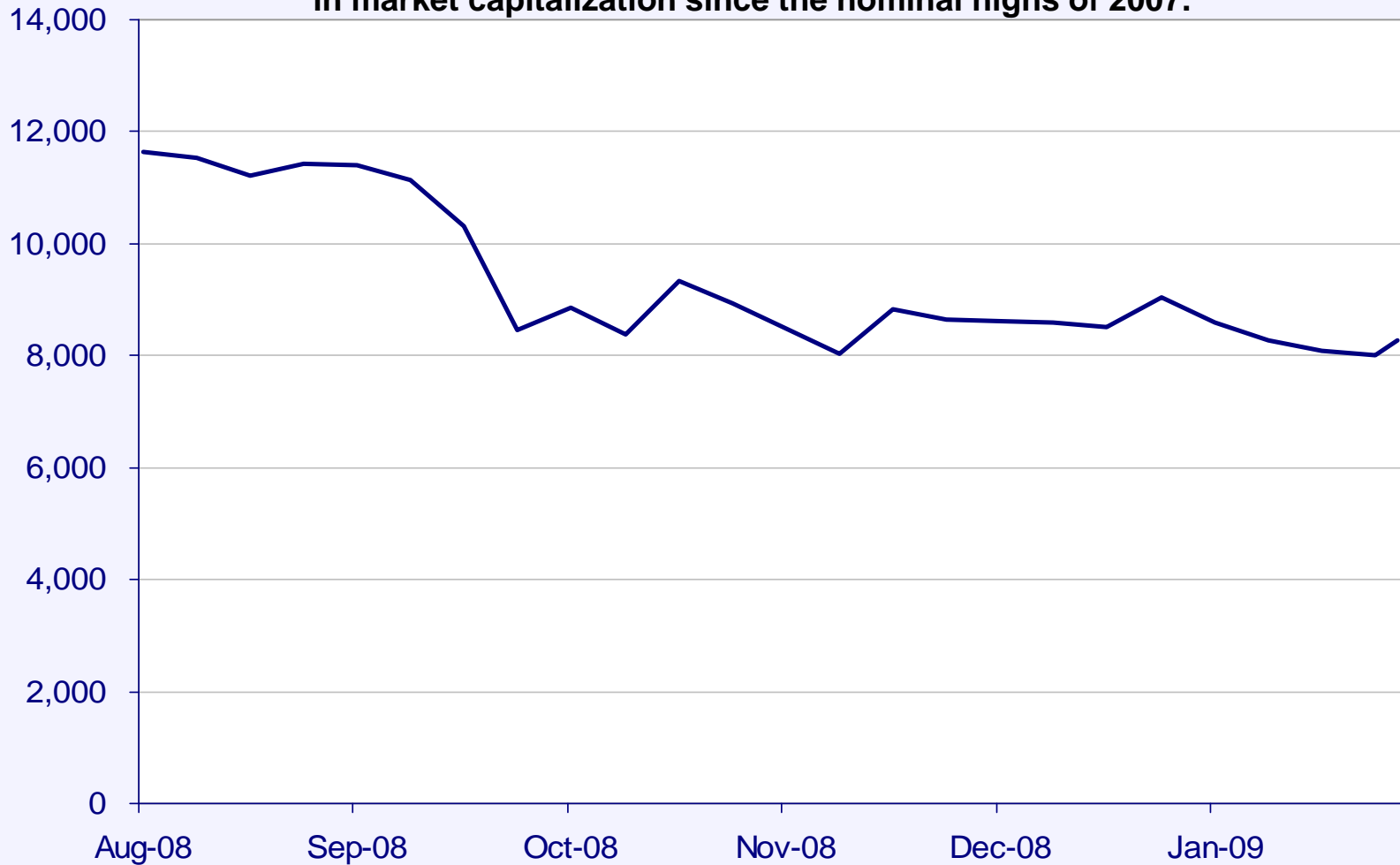


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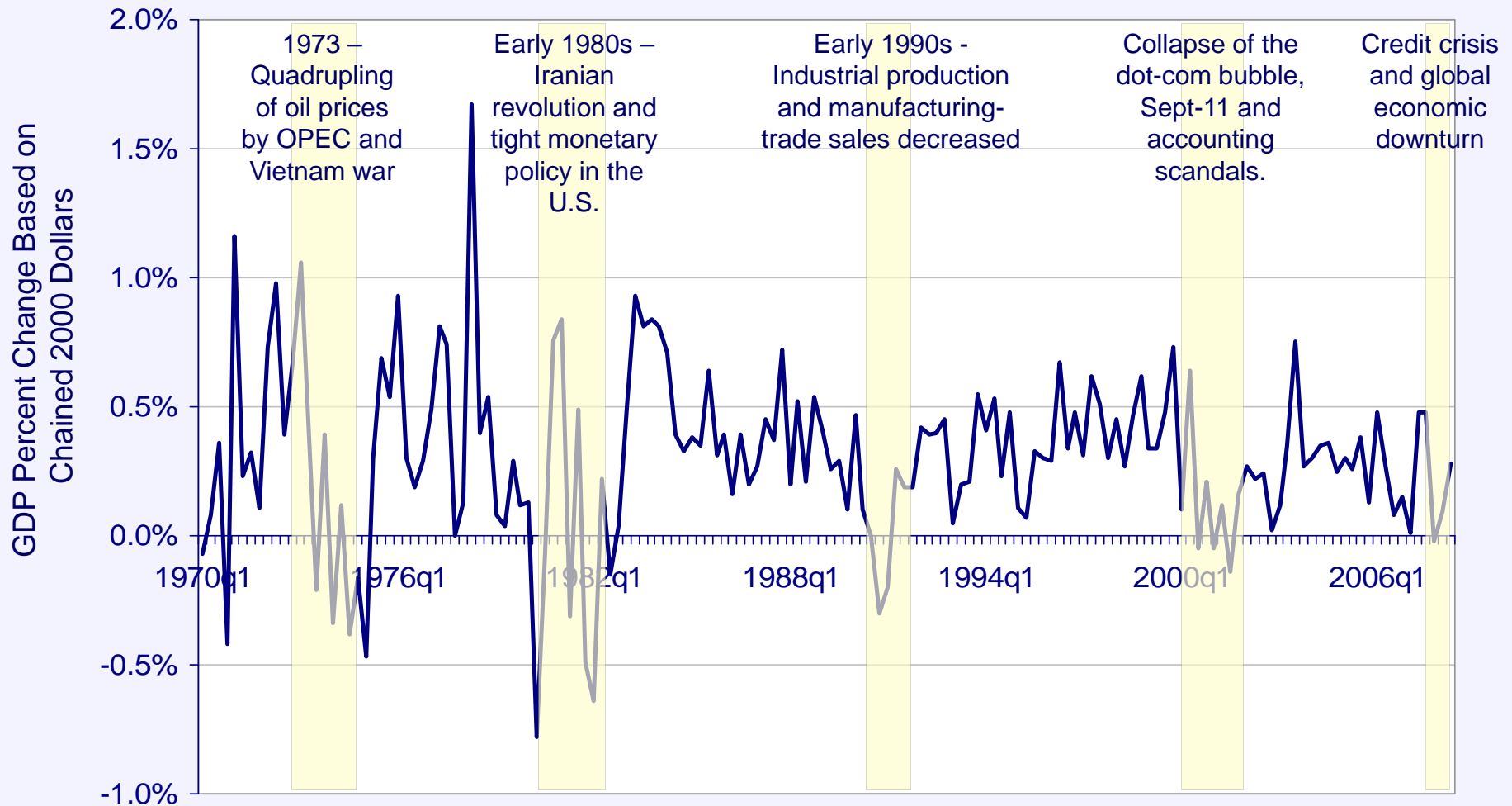
Recent Corrections and Adjustments

Dow Jones Industrial Average

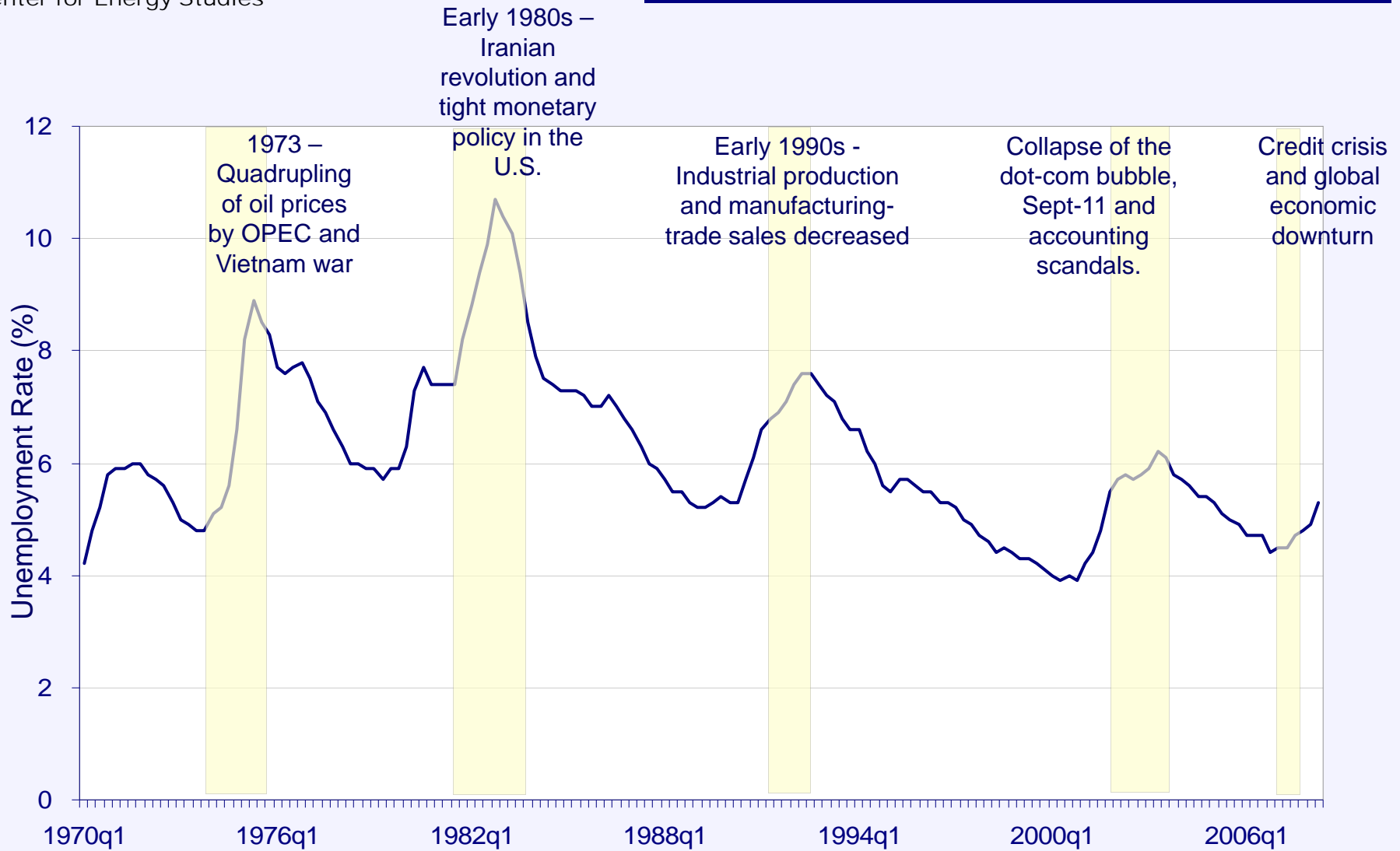
The Dow Jones Wilshire 5000, which is the broadest measure of total market capitalization here in the United States, has lost over \$10 trillion in market capitalization since the nominal highs of 2007.



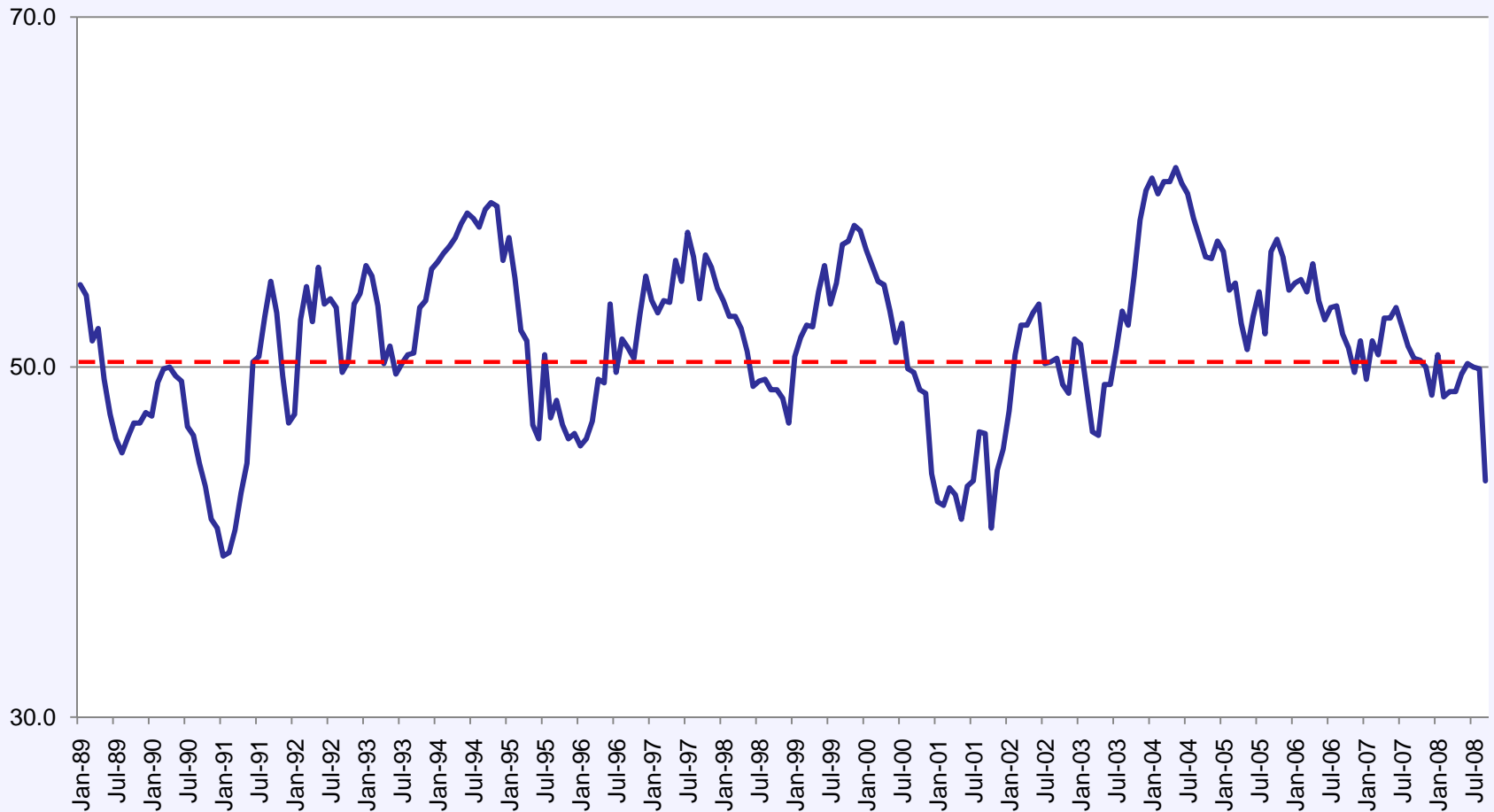
Gross Domestic Product



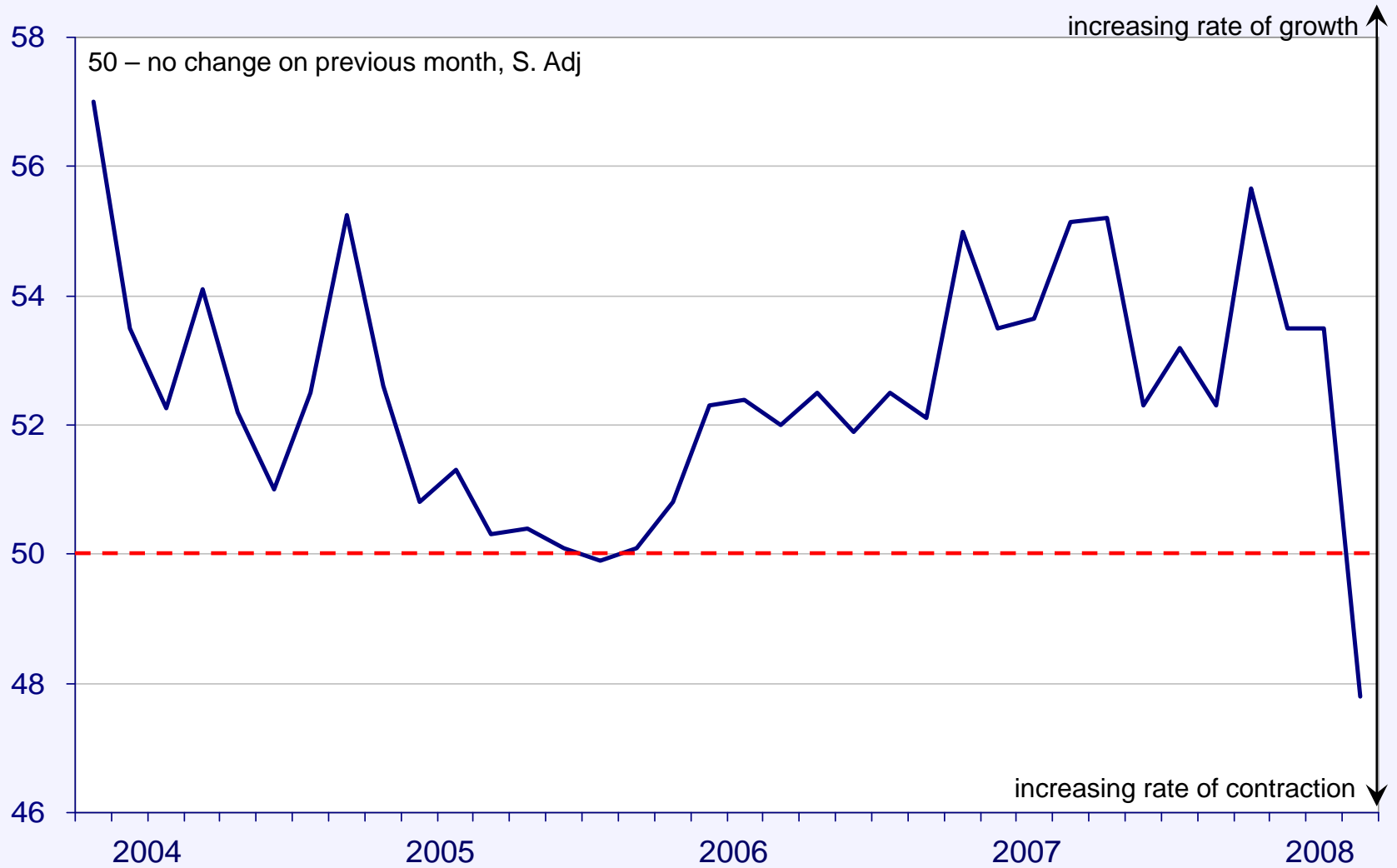
Unemployment Rate



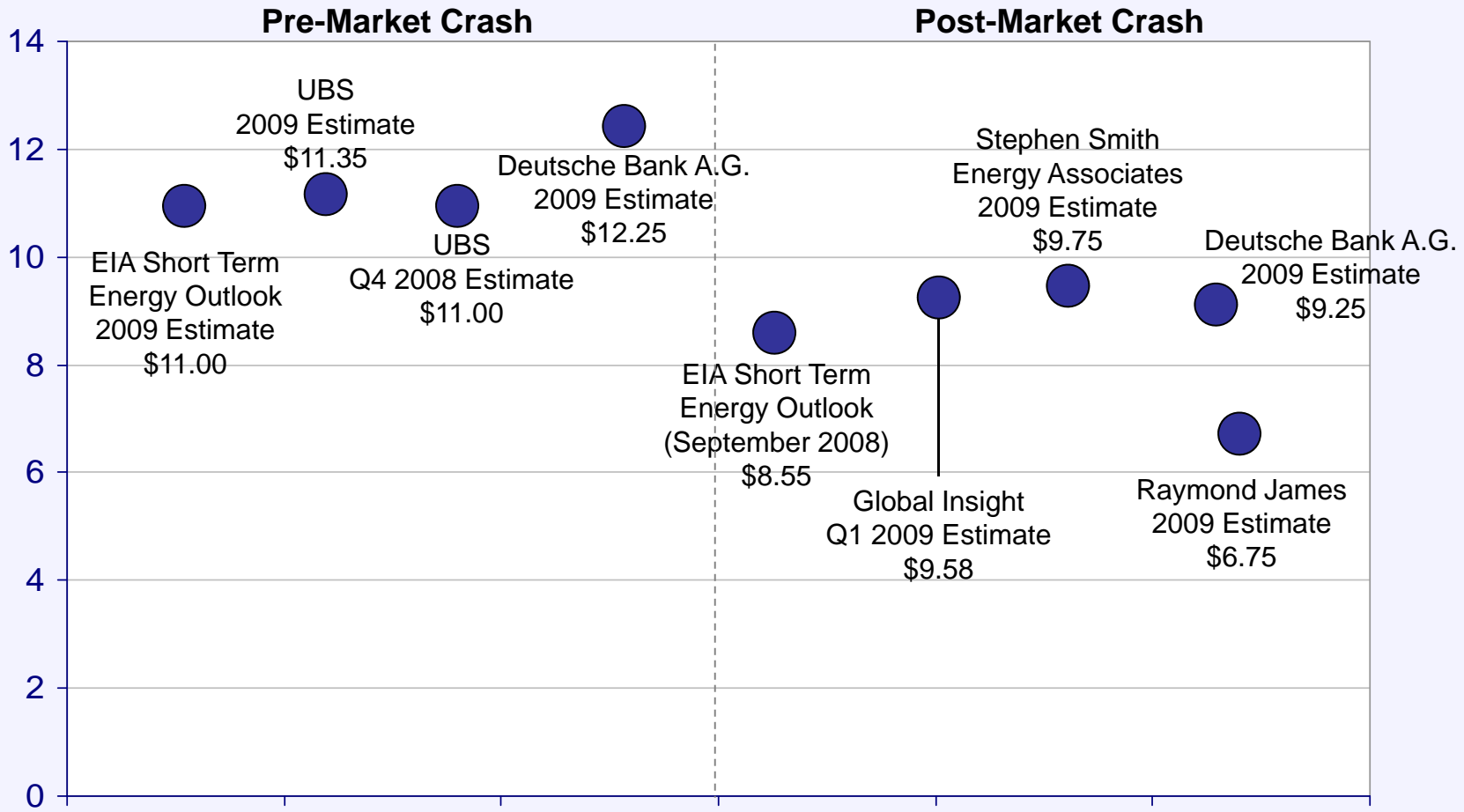
Current manufacturing indices indicating an industrial contraction with reading below 50.

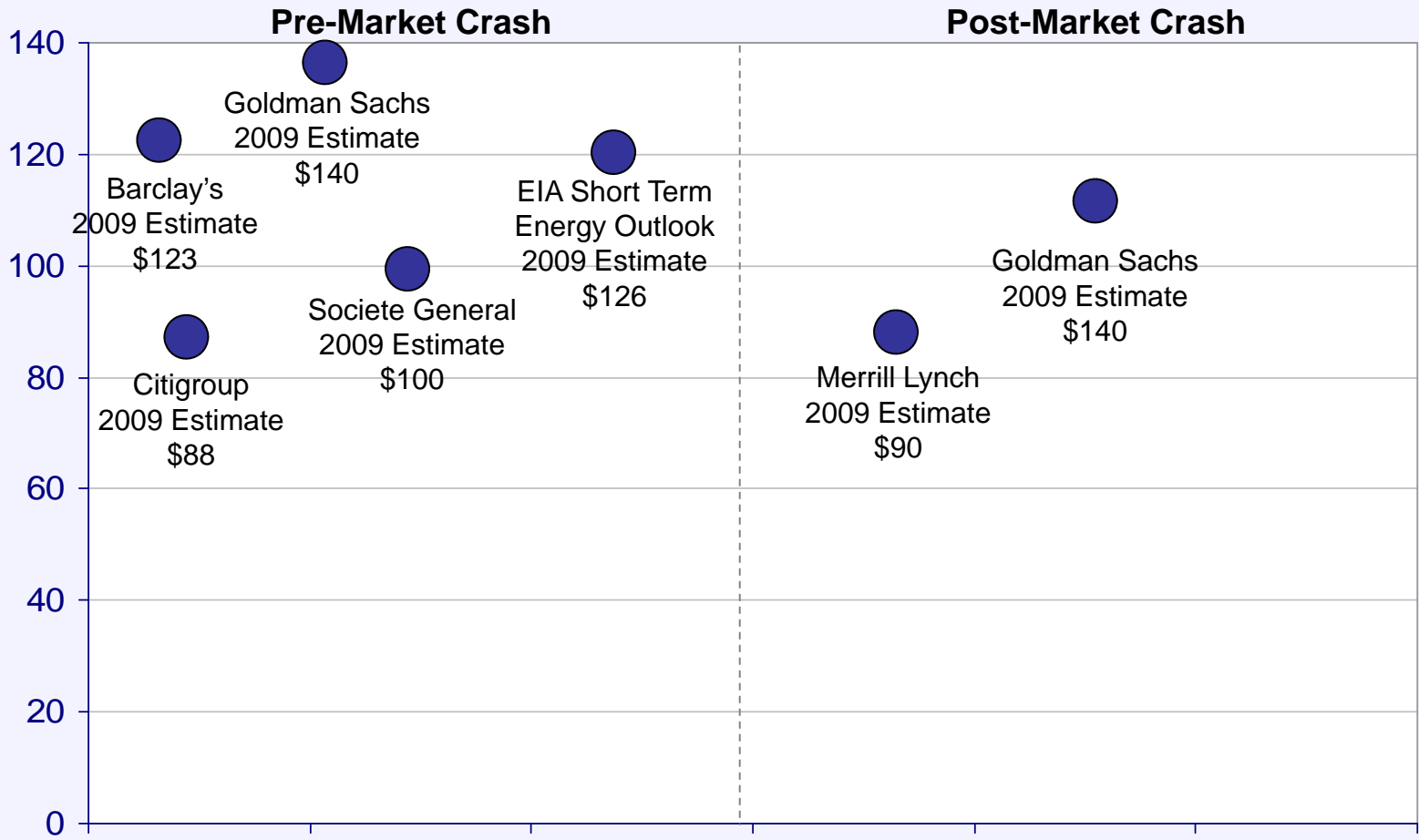


Chinese manufacturing indices also showing contraction.



Short Term Outlook Henry Hub Natural Gas Spot Price







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Regional Concerns: Central Gulf South (LA, MS)

Chemical industry utilization on the downturn.

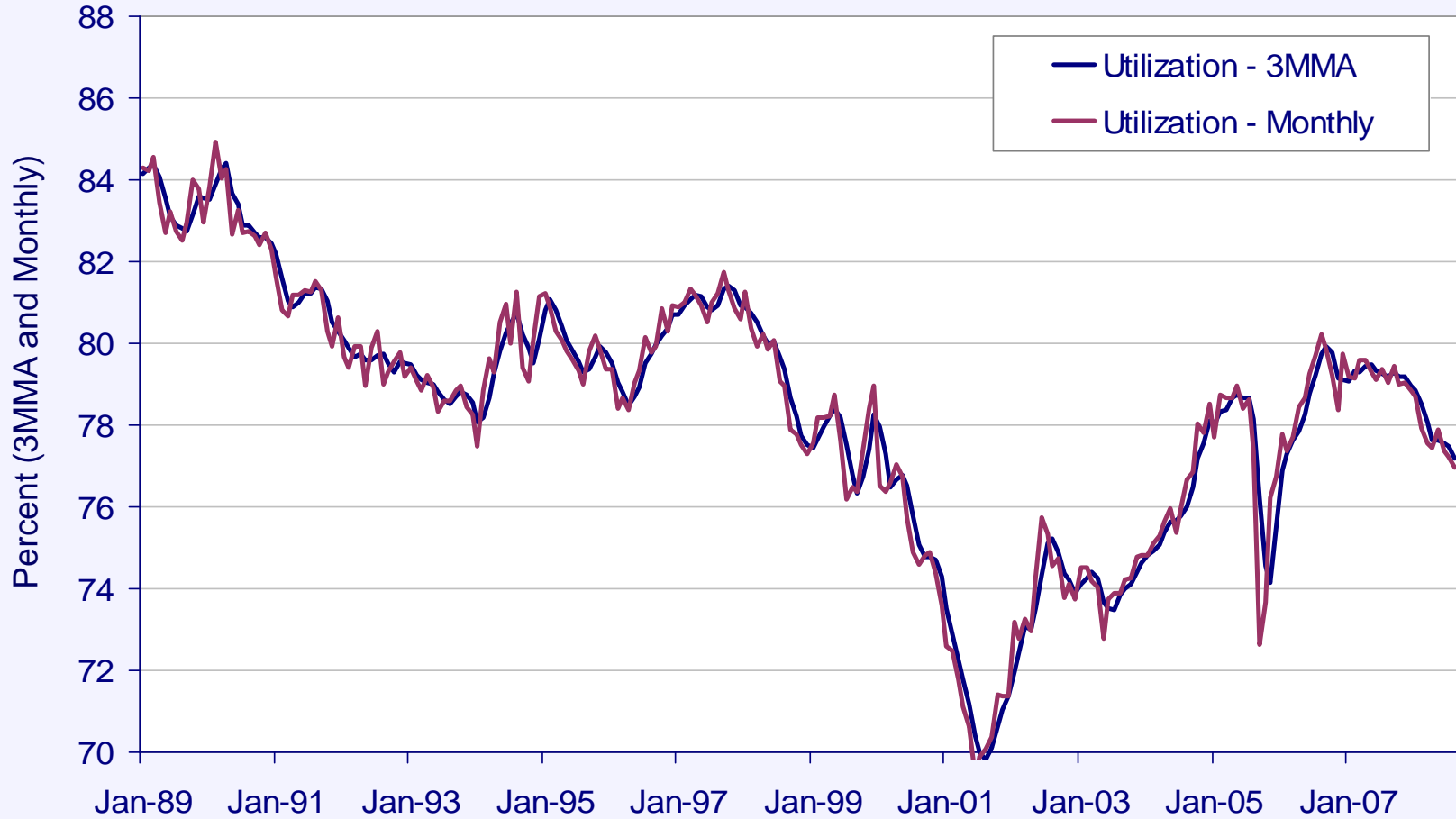
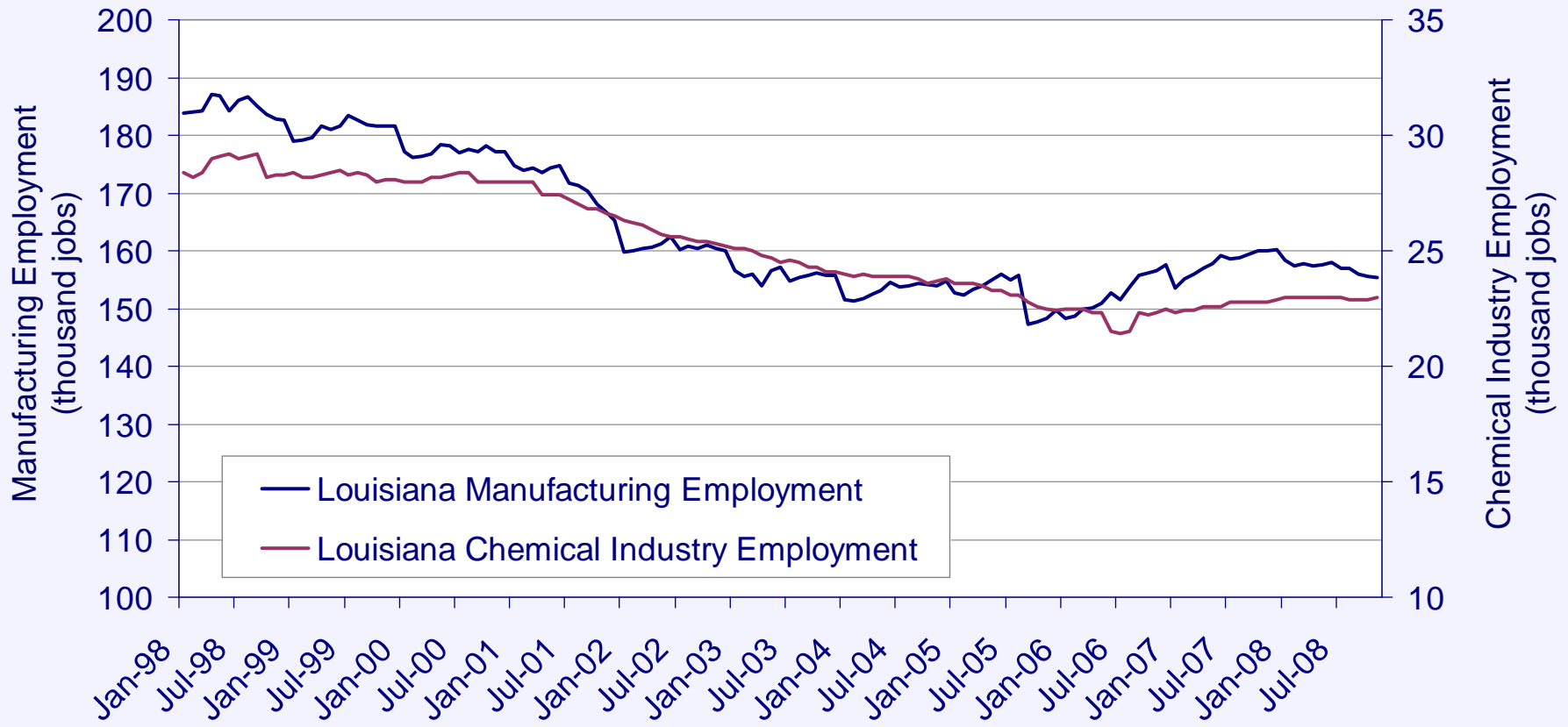


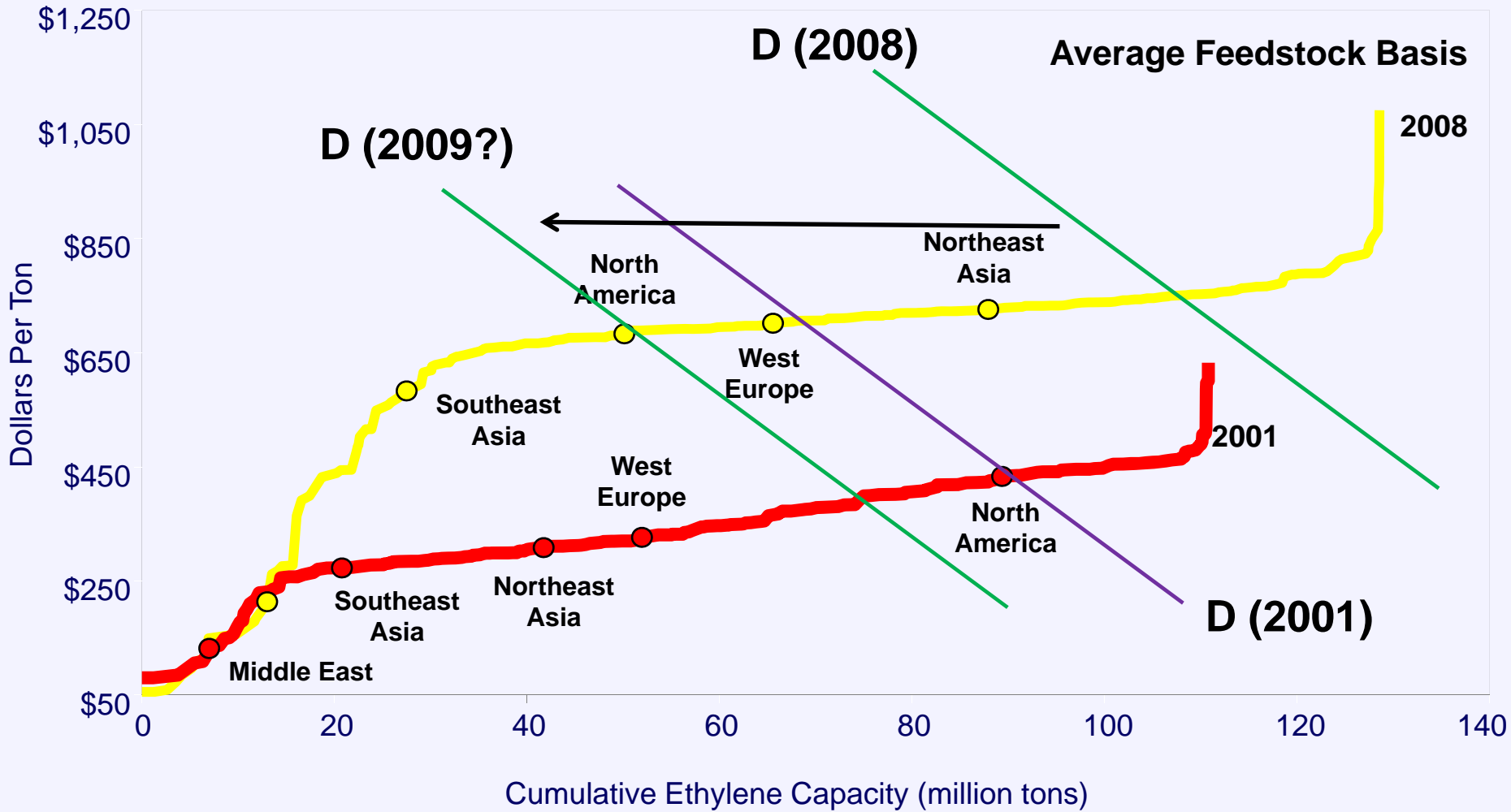
Exhibit 4. Louisiana Chemical Industry Employment and Output



- Dow Chemical announced it would cut 5,000 full-time jobs — about 11 percent of its work force — close 20 plants and sell several businesses to rein in costs amid the recession. Dow also will temporarily idle 180 plants and eliminate 6,000 contractors from its payroll. [New York Times, December 8, 2008]
- DuPont announced it would cut 2,500 jobs and eliminate 4,000 contractors. It also said it would idle 100 manufacturing units and warned that it would not make a profit in the fourth quarter because of a slowdown in the automotive and construction markets. [New York Times, December 8, 2008]
- Westlake Chemical Corporation, a petrochemical and fabricated products company, announced that it is idling one of its ethylene plants in Lake Charles, Louisiana due to significant customer inventory destocking and resulting weakened demand of the company's derivative products. [Marketwatch, December 17, 2008]
- In Shreveport, Louisiana, General Motors Corp. cut 798 jobs at its assembly plant in September 2008. [The News Star, December 23, 2008]
- International Paper Co. closed its Bastrop pulp mill in November, laying off 550 people. [The News Star, December 23, 2008]
- The Smurfit-Stone paper mill in Hodge, Louisiana which employs more than 500, has been idle since Dec. 12 with the temporary shutdown continuing through Jan. 14. [The News Star, December 23, 2008]

Ethylene Production Supply Curves

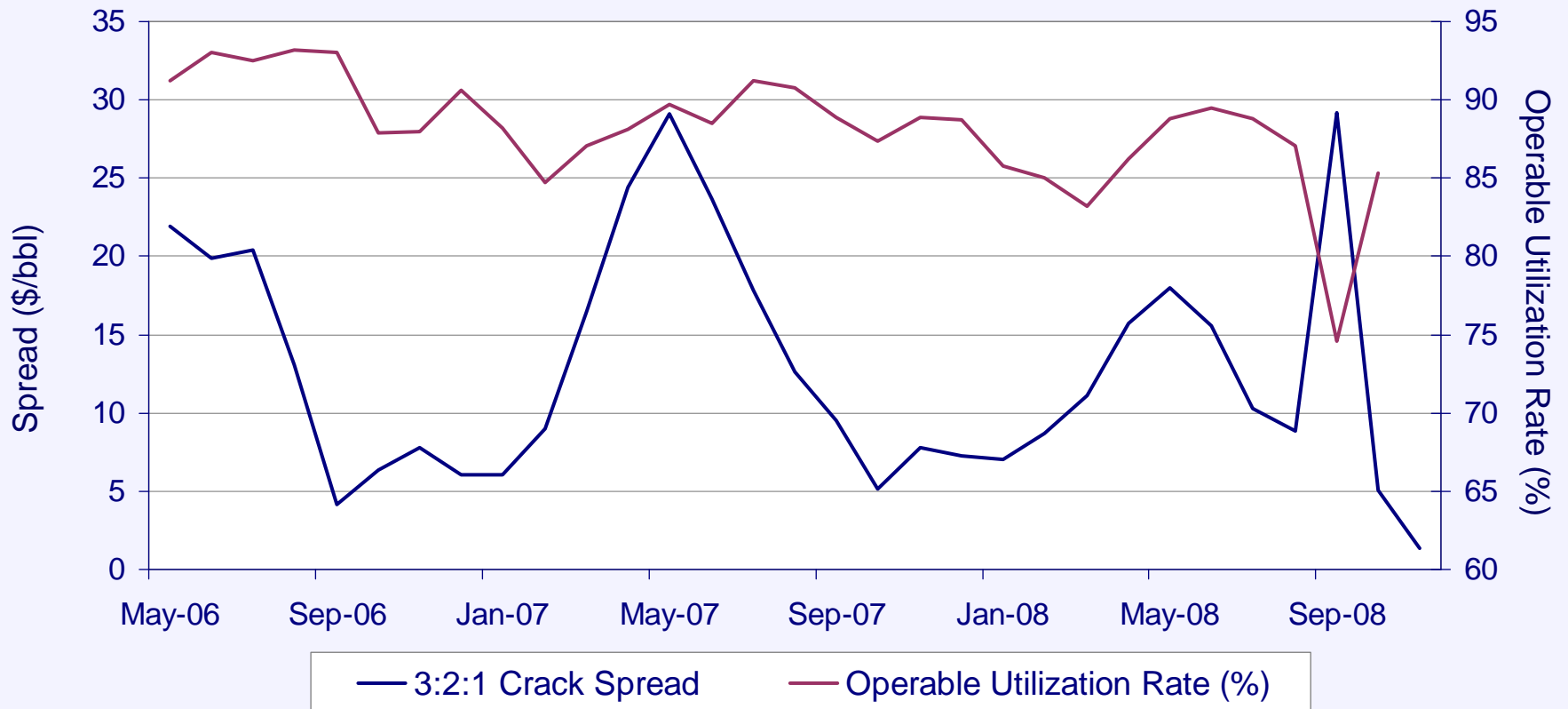
In 2001, US plants were on the margin since Europe was cracking with naphtha, US with gas. Who will be on margin in 2009 with downturn?





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Exhibit 3. Refinery Crack Spreads and Capacity Utilization



Forecast Demand for This Winter



Economic Slowdown	Certain		
Economic Recession (Moderate)	Certain		
Economic Recession (Severe)	Likely		
Future OPEC Production Cuts	Likely		(depends on magnitude)
Colder than Average Winter	Not Likely		
Global Slowdown	Certain		
Global Recession (Moderate)	Very Likely		
Global Recession (Severe)	Possible		

Questions, Comments, & Discussion

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