Bethlehem, PA November 2-3, 2010

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The oil spill

Things to consider

Impact on Fisheries

- Hammering fisheries
 - But fisheries small in the impacted economies
 - LA #2 in fish catch; total landed value in 2008: \$278 mn (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 + \$200 per deck hand (\$560 mm over 180 days)

Spill Impacts

- Tourism: Bad from East of Mobile Bay to tip of FL
 - Little impact to the west LA & MS & Texas
 - About 50,000 condos from Pensacola to Panama City
 - Economies here are tourism and military
 - Should be short run

- April 20th: Deepwater Horizon explosion & spill start
- May 11th: President asks NAE to investigate. Report given to President
- May 22nd: President issues Executive Order # 13543 establishing moratorium commission
- May 27th: President instructs DOI Secretary Salazar to issue 6-month moratorium on drilling in waters 500+ feet
 - Said decision based on NAE report
 - Strongly denied by several members of that group.

Oil & Gas industry: 17% of LA GSP

- Moratorium on deepwater drilling (now any wells using sub-sea BOPs or surface BOPs on a floating facility)
 - Drill ships (@\$250k-\$500k per day) will declare force majeure & leave for Brazil, West Africa, Australia---sign 3-4 year contracts in new location (Diamond Drilling & Transocean have already moved 4 ships)
 - 33 rigs impacted (?); about 8,000 direct jobs
 - Multiplier effect: about 30,000 35,000 jobs
 - Direct wages @\$1,800 per week: about \$748 mm a year

- Moratorium Study Commission
 - Not a single member with the skill set to analyze the problem
 - Loaded with anti-fossil fuels people
 - Frances Beinecke President of Natural Resources Defense Council
 - Don Boesch President of U. of Maryland Center for Environmental Science
 - Terry Garcia Ex. VP for Missions Program for National Geographic
 - Frances Ulmer Chancellor of U. of Alaska Anchorage & member of Aspen Institute's Commission on Artic Climate Change & Member of Alaska Nature Conservancy
 - Bob Graham, retired congressman from FL
 - Co-Chair William Reilly (former EPA administrator): First meeting in mid-July and report "next year"
 - No sense of urgency (surprised me here---released report late 8/10)

- Moratorium Study Commission: <u>side</u>
 <u>note</u>
 - The President did <u>not</u> meet with coastal state members of Congress before appointing the commission, which really teed them off. Result:
 - No subpoena power
 - No funding

- Morgan Stanley
 - -5% chance lasting 6 months
 - -60% chance lasting 12-18 months
 - -35% chance lasting up to 4 years
 - "Legal" v "Effective" moratorium
 - The permitting issue

- New Bureau of Ocean Energy, Regulations and Enforcement (old MMS) rule:
 - Third party certifications of key equipment such as BOPs, will work, and all well designs are safe must be submitted
 - Notice to Lessees N05: CEO must sign sworn statement certifying key safety equipment are okay, subject to criminal penalties.
 - Applies to shallow-water as well as deep.

- New Bureau of Ocean Energy, Regulations and Enforcement (old MMS) rule:
 - 2nd directive to deep water drillers: Must submit detailed spill control and cleanup plans, including descriptions of worst case scenarios.

- New Bureau of Ocean Energy, Regulations and Enforcement (old MMS) rule: The real killer
 - Instead of 30 days to approve new or revised permits, now BOERE has 90 days. Administration wants 270 days or possibly even open days.
 - BOE approved 7 permits to drill new wells May September, v 13 per week pre-spill
 - All MMS employees got back of President's hand: "For too long have had a cozy relationship with the industry." I.e., you have no integrity. Why approve any permits?
 - Last 15 years 11,070 wells drilled in shallow water; 15 barrels of oil spilled

- Will require political will to get new permits issued. Where will that come from?
- 2010-2012 virtually no drilling in GOM
- Boards of directors must make decision about where to commit resources: GOM or somewhere where you are wanted?
- Where will political will come from?
 - 2011-12 production will start to decline in GOM
 - Oil prices will rise
 - Law of Demand will save the day

Oil & Gas industry: The Insurance Issue

- 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
- Raising liability cap from \$75 mm to \$10 billion
- Result: Independents driven out of the Gulf
 - 4 of last 7 years have drilled over ½ wells in GOM
 - Own 81% of GOM producing leases
 - Own 46% of GOM deep water producing leases

Key facts

- Measurement of spill non-trivial to BP
 - Under <u>Clean Water Act</u> civil liability
 - Fines based on volume of spill: \$1,100 or \$4,300 per barrel if gross negligence
 - Through capping 7/15/10: \$21 billion

Key facts

- Measurement of spill non-trivial to BP
 - Natural Resource Damages <u>under Oil Pollution Act of 1990:</u>
 (Valdez \$950 mm)
 - Some estimates could be \$10 billion just in LA
 - FBR Capital estimates total liability in \$30-\$60 billion range
 - Everyone whose life work is studying any organism in the Gulf may see a change and any is assumed to be bad.
 - Remember: Oil companies are "bad"
 - Trial lawyers full employment act of 2010....
 - Oil spill is litigation fire zone. Example: Moratorium lifted w/environmental impact study

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

Key facts: One Industry Response

- Exxon, Shell, ConocoPhillips, Chevron, BP
 - \$1 billion into new non-profit, rapid-response company: Marine Well Containment Company
 - Would respond to oil leaks up to 10,000 feet of water.
 - Begin mobilization w/I 24 hours of blowout
 - Arrive at leak in days; fully operational w/I weeks
 - Their hope: Be the "Maytag Repairman" for the extraction industry

Key facts: Political Response?

- Shut down the GOM: Silly
 - 33% of US oil production from the GOM
 - 18.7% of US oil production from deep waters
 - 10% of US natural gas production from GOM
 - 5% of US natural gas production from deep waters
- Just switch to alternative energy like wind and solar: Equally silly

Wind Power

- Four pivotal limitations;
 - Intermittency:
 - When will the wind blow?
 - Texas has 9,700 megawatts of wind power capacity. In August 2010 only 570 megawatts (6%) generated.
 - When it is not, need base load electrical generating capacity from traditional sources
 - Cost
 - People do not want to live near them
 - Billboards no; windmills yes???



Project No Project www.projectnoproject.com





Windmills – Bird Kills

- Altamont Pass 50-square mile site between San Francisco and the Central Valley in Diablo Mountains: 4,000 windmills
 - July 2008 study: annual bird count: 10,000 birds
 - 1,300 raptors: Golden eagles (80 annually), redtailed hawks, burrowing owls & others
- Windmills in Blackbone Mountains in VA:
 - 2004 research killed 4,000 bats

Robert Bryce in "Power Hungry"

"If you are anti-carbon and anti-nuclear, you are pro brownout."

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