

## the impact of the BP spill on energy bonds

### THE CURRENT SITUATION

**O**ur addiction to hydrocarbons is not going away any time soon. Over the past decades the composition of worldwide energy reserves has changed dramatically. The “low hanging fruit,” easy to get energy reserves have largely been exploited. The bulk of untapped reserves are currently either held by large foreign national oil companies (such as Petrobras of Brazil, PDVSA of Venezuela, and Gazprom of Russia), or are found in environments that were previously technologically unavailable or uneconomic. Technology has advanced to the extent that oil wells are currently being drilled in 5,000 feet of water or more, and previously inaccessible natural gas is being extracted from shale rock that has been fractured, or “fracked.” Given this shift to such challenging exploration, it almost seems inevitable that something would go wrong. In fact, as we are all too well aware, on April 20, 2010, something did go terribly wrong when the Deepwater Horizon well blew out. The magnitude of this environmental disaster, the largest oil spill in U.S. history, underscores the industry’s lack of preparedness. How can fixed income investors position themselves in both the short and long run relative to the changes that will come as a result of the Deepwater Horizon oil spill? In this two part analysis we will share with you our current thoughts on specific energy companies and various energy sectors.

#### PART 1: THE “SPILL” NAMES.

The first group of companies includes those directly involved in the environmental catastrophe, primarily BP, Transocean, Anadarko, and to a lesser extent Halliburton & Cameron.

**BP:** When all is said and done, the odds are that BP will remain an independent company, but with a smaller asset base. BP’s prodigious cash flow supplemented by non-core asset sales and cash balances are expected to easily fund the estimated \$20 to \$30 billion in expenses relating to the spill. In fact, a sale of \$10 billion of noncore assets is really only about 3 percent of total BP assets. The sale of three large oil fields could easily meet this goal. During the height of the crisis both equity and fixed income investors overreacted to bankruptcy fears and 10-year BP spreads ballooned out to 500 basis points, versus 47 basis points prior to the spill. They have since narrowed to around 330 basis points. When the Macondo well is contained –either by the temporary containment cap or eventually by the permanent relief well – spreads are expected to rally even further as each new milestone is reached. Another key event will be the decision as to whether BP’s actions leading up to the spill constituted negligence and

the arbitration panel’s decision about liability and cost sharing relative to the Macondo well joint venture partners, Anadarko and Mitsui. However, even when the well is permanently plugged, it is likely that BP will continue to trade wide to other energy majors given the known and unknown factors involved in the ongoing clean-up effort, economic liabilities, environmental fines, potential criminal charges, etc. The taint around the BP name will linger possibly for years to come, likely causing yields to be higher. (In fact, 21 years after the Valdez spill, Exxon is still in court dealing with lawsuits surrounding economic losses and environmental damage.)

There are rumors abound that BP could be acquired by another major energy company, such as Exxon or China’s CNOOC. An all-out purchase of BP by the likes of Exxon is unlikely at this stage given the unlimited and unquantifiable spill liabilities. The seemingly xenophobic attitude of the U.K. government towards a foreign purchaser (such as CNOOC) would make this option equally unlikely. However, in the unlikely event a wholesale acquisition of this nature were to happen, spreads would benefit. Much more likely, however, would be the previously mentioned sale of noncore assets. (In fact, in mid-July, BP announced the sale of \$7 billion of assets to Apache.) Another reputational hit to BP would be any Congressional action to bar them from new offshore leases in the Gulf of Mexico. BP is currently the biggest operator in the Gulf, and has big growth plans there. Were a ban to happen, this would not totally preclude BP from operating in the Gulf, it would just force them to become a minority, non-operating partner in future Gulf exploration.

**Transocean:** Spreads on Transocean have widened from 70 basis points before the spill to 665 basis points at the peak of the crisis to around 407 basis points currently. As the owner of the rig, operator of the actual drilling process and employer of 79 of the total of 126 employees on the rig, allegations of blame have been rife between BP and Transocean. (BP only had 6 employees on the rig at the time of the blowout.) While Transocean’s lost rig was fully covered by insurance, and contractual terms with BP put the responsibility for all decisions and liabilities back on BP, concerns remain given the cross allegations of negligence. Despite this, a pretty good case appears to be emerging showing a pattern of cost cutting and safety violations by BP management as a result of their haste to finish the already behind schedule well. Transocean bonds could tighten further if their liability is determined to be small.

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**Anadarko:** Given Anadarko's current liquidity, insurance coverage, strong cash flows and multiple capex and asset options, Anadarko should be able to easily handle its share of the clean-up, if in fact they are even deemed to be liable for a portion given allegations of negligence on the part of BP. Spreads on Anadarko 10 year bonds have widened from 117 basis points before the spill to 714 basis points at their widest, back to 520 basis points currently. Certainly the widest priced in a severe risk scenario, however we believe that, even at current levels, Anadarko bonds appear to be trading cheap. However, beyond the actual spill, Anadarko has had to deal with its ratings being downgraded to non-investment grade (Ba1) by Moody's and with its S&P rating barely hanging onto investment grade status.

**Halliburton and Cameron:** As the cementing contractor for the Macondo well, and the manufacturer of the blow-out preventers ("BOPs"), respectively, Halliburton and Cameron have suffered to a much lesser degree since blame is more indirect and as both are largely indemnified by BP with respect to spill costs. From levels prior to the accident of 72 basis points, spreads on Halliburton 10-year bonds widened to 170 basis points, and have now fallen back to around 148 basis points. Likewise, spreads on Cameron bonds have increased from 130 basis points prior to the accident, to 290 basis points at the height of the crisis, to around 275 basis points currently. Illustrative of the relatively minor impact the spill has had on Halliburton is the fact that HAL's second quarter profits were up 83 percent as gains in onshore business more than offset the impact of losses in the Gulf.

### PART 2: THE "INNOCENT BYSTANDERS"

Those who are secondarily impacted by the Deepwater Horizon spill include other energy companies, as well as companies in a myriad of other sectors, people and the environment. Although indirect, the impact on these segments can be just as far reaching as the impact on those directly involved. From levels prior to the accident of 123 basis points, spreads on the overall investment grade energy sector widened to 206 basis points at the peak, and have now fallen back to around 174 basis points.

**Large energy majors:** Exxon, Shell, Conoco, etc. and larger independents such as Apache with strong balance sheets and high cash balances will be able to deal with the increased costs associated with drilling and growing reserves organically in the new "post spill" environment. We believe mergers and acquisitions will heat up as strong players pick off weaker players whose equity values and access to the credit markets have been hurt by the current situation. While the current deepwater drilling moratorium will stop or slow drilling in the Gulf, major energy companies typically have several potential projects worldwide in their lineup; capital expenditures and money will be allocated in other geographic locations in the interim.

**Smaller independents:** Producers with weaker balance sheets and a heavy dependence on Gulf of Mexico reserves (and associated higher operating, regulatory and insurance costs as a result of the spill), will likely be forced to either sell themselves, or their deepwater Gulf operations, to larger players. Small producers do not have the deep pockets required to deal with potential liability and cost issues associated with any future spill of this magnitude, especially if the current \$75 million liability cap is increased to \$10 billion, as proposed. Higher regulatory and environmental costs going forward will lead to reduced profit margins. Slower reserve growth (as a result of the ongoing deepwater moratorium and a slower approval process) will lead to lower liquidity (a result of reduced borrowing base bank lines). Additionally, bank appetite to lend to smaller players who could be wiped out by a large spill may be greatly diminished going forward.

**Miscellaneous energy companies:** The proposed BP assets sales could result in meaningful shifts in ownership of high quality energy assets. Opportunities will open up for the fixed income investor to participate in the bond issuances associated with these acquisitions. For example, Apache recently announced its intent to buy BP properties in the Permian Basin, Egypt, and Canada for \$7 billion and CNOOC is believed to be interested in increasing their ownership in Pan American Energy in Argentina. Any decrease in BP ownership in Pan American below 50 percent would result in the existing bonds being called under a change of control. Spreads on Magellan Midstream bonds have tightened 14 basis points since Magellan announced that they are acquiring \$339 million of high quality petroleum storage and pipeline assets from BP given the quality of the perceived revenue stream.

**Drillers:** Consolidation amongst the drillers is a certainty. Historically drilling rig companies with fat wallets go shopping in a down cycle, never in an up cycle. Equity values for smaller drillers are down significantly, making mergers and acquisitions appealing. Some smaller players have been unexpectedly stuck with expensive deepwater new-builds without contracts, opening up opportunities for big players with war chests full of cash. In fact, several deals have been announced already (Rowan/Skeie, Noble/Frontier).

**Moratorium impacts:** The Deepwater Horizon spill and moratorium will initially result in a decrease in drilling in the Gulf of Mexico, and rig rates will be re-negotiated (lower) as the 33 idled rigs in the Gulf look to find new jobs. Even shallow water rigs will see a negative impact on rates as smaller producers re-evaluate the risks and costs of drilling in environmentally sensitive areas and as higher quality (now unemployed) rigs become available at lower rates, perhaps replacing them.

Eventually, however, the moratorium will be lifted, and deepwater drilling in the Gulf will resume. Admittedly there might be a time

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lag, since rigs could have moved off to other locales during the moratorium period, and might not be freed up from their new jobs for some time. However, when drilling resumes, stricter regulations and greater government involvement will increase the costs associated with drilling and drilling will cease on marginal wells. Actual drilling time will also increase; this will eventually drive up the demand curve for drilling rigs, and thereby lease rates. In a worst case scenario, rig demand could almost double if Canadian-style regulations that require a relief well be drilled at the same time as the main well are enacted.

**Oilfield service companies:** Financially strong oilfield service companies will gobble up weaker oilfield service companies. In addition to the fact that smaller players are less likely to withstand the current shut down in the Gulf, newer, more costly, rig designs and technologies are required to access oil and gas in deepwater wells, as well as shale plays. Demand for “well intervention services” such as pressure pumping or other forms of enhanced oilfield recovery services for older oil fields will increase as these fields may remain economically viable due to higher oil prices. From levels prior to the accident of 162 basis points, spreads on the investment grade oil field services sector widened to 293 basis points at the peak, and have now fallen back to around 263 basis points.

**System redesign:** Systems will need to be re-designed after the failure of the three “fail-safe” blow-out preventers on the Deepwater Horizon. Retrofits and redesigns will be in order, more redundant systems will need to be put in place, and testing will need to be meaningful. Redesigns of these systems brings growth opportunities to Cameron, the maker of the Deepwater Horizon BOP, (with about 90 percent of the \$1.5 billion market for BOPs), as well as for smaller competitors including National Oil Well Varco and GE’s Hydril. Well design, casing and cementing will also need to be thoroughly re-evaluated going forward, benefitting companies such as Halliburton, Schlumberger, etc.

**Regional changes:** Thus far only the U.S. and U.K. have discussed mandating stricter regulations around deepwater drilling. This could shift production and employment to other regions of the world with less costly and stringent regulations. Land-based reserves, such as Alaska, or Canadian oil sands, where environmental disasters of this nature are not an issue, could also command a premium going forward. This could also benefit onshore drillers, such as Nabors, or Canadian oil sands producers.

**Clean energy:** The push to clean energy will be accelerated as will the quest to end the United States’ dependence on foreign oil by promoting natural gas and wind power. In conjunction with the Obama administration’s desire to increase employment, various measures will be enacted to further incentivize alternative

energy. Although still costly, nuclear power, solar energy, wave technology, wind power, electric cars, etc. all become viable with government incentives, tax credits or government guarantees (although Congressional focus has been diverted of late).

**Natural gas:** Modern technologies have made exploitation of the vast shale gas resources in the U.S. economically viable. Natural gas is much more environmentally friendly than oil as a source of energy. Additionally, even in the event of a well blowout, natural gas hydrocarbons leaked from a well would evaporate quickly, so the environmental impact would not be as great. Not only does natural gas burn cleaner, it has a considerably smaller carbon footprint than oil (39 percent higher) or coal-fired (77 percent higher) generation.

However, any shift from existing coal-fired generation to natural gas-fired capacity would come at a huge cost. According to the Aspen Environmental Group the overall cost of transitioning from coal to natural gas would be more than \$700 billion today. Of that cost, \$335 billion comes from the replacement of existing coal-fired units with combined-cycle gas units. An additional \$348 billion would come from new pipeline capacity and \$12.5 billion for additional storage capacity.

While adding pipeline capacity is reasonably efficient, there are ongoing concerns about the ability of natural gas production levels to meet the increase in demand that would come with a wholesale transition to natural gas. Decline curves at the new shale wells are large, and the ultimate life of reserves is still an unknown. Likewise, geology will limit the ability to add new gas storage facilities. Fluctuations in natural gas prices, historically one of the most volatile commodities, could increase even more, leading to more uncertainty with regards to electric costs nationwide.

**Insurance companies:** Rates for insurance coverage for offshore oil rigs in the Gulf of Mexico are expected to increase between 15 percent and 30 percent after the Deepwater Horizon spill. Going forward it is possible that insurance will not even be available to small independents for deepwater drilling, with significant rate increases for insurance at every water depth. With regards to the actual oil spill, estimates vary widely on what the eventual payout by insurance companies will be. Some estimates reach as high as \$3.5 billion, while others estimate a fraction of this figure. Beyond the insurance payout on the sunken rig, BP, who self insures, has assumed liability for the impact of the spill. Another \$1.6 billion is available from the Federal Oil Spill Liability Trust Fund, although the responsible parties are required to reimburse the fund for costs and damages. It is possible that insurance companies could emerge largely unscathed by the BP spill, especially if BP is found to be negligent.

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**Environmental companies:** Despite the magnitude of the clean-up efforts, the environmental clean-up arena so far does not appear to offer much opportunity for the fixed income investor. This is largely due to the fact that the principal oil spill response company, Marine Spill Response Corp. (MSRC), is owned by the major energy companies, having been formed after the Valdez accident. MSRC primarily uses subcontractors for the cleanup. Most of these companies are either too small to access the bond markets, or are large, such as Waste Management, where waste disposal from this cleanup is a small portion of their overall business. Beyond that, a chemical company named Nalco is a high yield issuer. Nalco makes the oil dispersant BP is using to fight the spill. This chemical, however, has been extremely controversial, and the liability issues are too difficult to quantify.

**Conclusion:** In the long run one thing is for sure: rising costs for the oil and gas industry as well as the increased costs associated with alternative forms of energy will be passed on to consumers in the form of higher energy prices.

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