When financial imperfections are not the problem, but the solution

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The *Deepwater Horizon* rig was an oil extraction unit located some 66km off the coast of Louisiana, in the US portion of the Gulf of Mexico. It was owned by drilling company *Transocean*, which operates the largest fleet of deep-water offshore rigs in the world, and leased to *BP*, one of the world's leading energy companies, part of a conglomerate with interests that range from transportation fuels and petrochemicals to clothes and packaging. On April 20, 2010, a concrete seal in the Macondo well, where Deepwater Horizon was positioned, burst as a consequence of a surge of natural gas. During the installation of that seal, contractor *Halliburton* had used nitrogen gas to accelerate its "curing," a technique that is known to weaken the pressure that this type of concrete seal withstands.

The most immediate consequence of that explosion was the death of eleven members of the rig's crew, and the injuries caused to 17 more. After that, the oil spill that occurred during the 87 days constitutes the largest one in the history of petroleum production, and the worst environmental catastrophe in US history. The damages caused to the ecosystem, to the local economy and to the population of the area remain largely unquantified, but some indicators are known.

During the sixth months following the explosion, some 8,000 animals were found dead, with their deaths attributed directly to oil contamination. Later studies have shown that the number of local sea turtles becoming stranded onshore have multiplied five-fold, and that one half of the dolphins in the area exhibit serious health disorders known to be linked to oil exposure.[1] In the longer term, the number of seabird deaths attributed by scientists to the explosion ranges from 600,000 to 800,000.

Besides oil drilling, the economies of Louisiana, Mississippi and Alabama depend heavily on their fishing and tourism industries. Immediately after the explosion, the moratorium imposed on further drilling activities left an estimated 8,000–12,000 local workers unemployed. In response to the spill, government agencies also deemed it nec-

[1] This figure refers to a sub-area of the Gulf of Mexico, the Barataria Bay, in Louisiana.

essary to close parts of the Gulf to all fishing, both commercial and recreational. At its peak, this ban covered 88,522 square miles, about one third of the US portion of the Gulf. Also, with 22% of the total news coverage in the US devoted to the incident during the following 100 days, the perception that seafood sourced in the gulf would be polluted is likely to have affected its demand, as it did the demand for tourism: according to a poll, in the first four months after the incident, almost one third of travellers to the coast of Louisiana had cancelled or postponed their visits because of the spill.

And while much more difficult to measure, especially in the short run, the incident had significant consequences for the lives of people local to the area. Again in the four months following the explosion, the clinical diagnoses of depression increased by about 25%, and more than half of the people responding a local survey reported to have been worried "almost constantly" about the spill.

In 2011, a report commisioned by the US government concluded that the explosion of the well could have been prevented, and that its causes could be traced directly to decisions made by BP, Halliburton and Transocean.

By the time the well was successfully re-sealed, 4.9 million barrels of oil had been released to the waters of the Gulf. Three quarters of this oil could not be intercepted during the recovery efforts,[2], and while a significant part of this oil has naturally dispersed or evaporated, at least one quarter of it remained as residue, either at the water surface, floating as tar balls, washed ashore, or buried in sediment.

Shortly after the explosion, at the request of the US government BP placed in escrow a fund of $20bn to help address the financial losses caused by it. Later, it was also required to pay the $14bn cost of the clean-up efforts led by the US Coast Guard and other agencies, and a US federal court imposed fines on the company for $18bn (which, BP announced, it intended to appeal). One year after the incident, BP's market capitalization had decreased by about 23%,[3] and during the first three quarters of 2010 the company stopped paying dividends to its shareholders. But by the fourth quarter of that year the dividends were reinstated at about one half the value of the last quarter of 2009, and between then and the third quarter of 2014 they have grown by 47%.

In January, 2011, American oil producer *Marathon* split its refinery activities from its exploration arm, after which its shares increased by 23%, gaining the company over $14bn in capital. The third-largest oil company in the country, *ConocoPhillips*, followed that strategy in May, 2012, and, even in the aftermath of the Deepwater Horizon spill,

[2] The methods used to attempt interception, which included burning some of the oil at the surface and the application of chemical dispersers, are themselves likely to have detrimental impact on eco-systems.

[3] Valued in Sterling.

financial analysts stressed that doing the same would increase BP's market value by about \$100bn.[4]

[4] See www.bloomberg.com/news/2011-07-24/bp-breakup-worth-100-billion-to-jpmorgan.html, which reports on a *JPMorgan*'s statement on this matter, and on similar positions held by analysts at *UBS* and *Bank of America*.