

## BP (NYSE: BP - \$32.78/adr – Overweight): Upgrading from Neutral to Overweight

Notwithstanding the obvious headwinds, including mounting Macondo liabilities, a yet-to-be stopped GOM leak, a potential stall in dividend payments, increasing credit default spreads on BP debt, potential gross negligence or criminal liability claims and a clear lightning rod for criticism in the U.S., BP shares offer reasonable long-term value, in our view. BP's book equity value (\$104 billion), net PP&E (\$108 billion) and pre-Macondo liquidation value (\$130-192 billion) all well-exceed our estimate of the likely range for discounted Macondo liabilities net to BP of \$11-56 billion (undiscounted \$18-91 billion). The next 12-24 months are likely to be challenging and we would characterize our note as a high-risk upgrade, given the myriad of uncertainties that remain. Having said that, the kitchen sink of headlines have been thrown at BP shares over the past 2 weeks, thereby partially desensitizing the shares to the news. Meanwhile, the brewing debate of BP pensioners vs. Macondo victims is generally supportive of BP shares, in our view.

BP Equity Value	Low	Mid	High
BP Pre-Macondo	130,000	160,943	191,885
Undiscounted Macondo Liability	(90,550)	(42,065)	(17,864)
Discounted Liability (~10 yrs)	(55,639)	(25,847)	(10,977)
<b>BP Net Value</b>	<b>74,361</b>	<b>135,096</b>	<b>180,909</b>
Shares o/s	3,131	3,131	3,131
<b>\$/sh</b>	<b>\$23.75</b>	<b>\$43.15</b>	<b>\$57.78</b>
Current	\$32.78	\$32.78	\$32.78
<b>Upside %</b>	<b>-28%</b>	<b>32%</b>	<b>76%</b>

Source: Simmons & Company International

**What's in the stock.** We think BP shares are discounting a NPV of Macondo liabilities of approximately \$64 billion, above the high-end of our discounted Macondo liability range of \$11-56 billion and above the mid-point of our undiscounted Macondo liability range of \$18-91 billion.

**Valuation perspectives.** BP shares are 26% lower than in Dec-'08, when oil prices were \$10/bbl (similar to '98 levels of market value). Meanwhile, book value has increased by 142% or \$62 billion.

**Free cash flow.** At \$75/bbl, we estimate that BP generates \$17 billion per year in free cash flow (before ~\$10 billion in dividend payments, which may be temporarily reduced or frozen at BP's discretion). By comparison, the current rate of spend (gross) at Macondo is ~\$30/day or ~\$11 billion per year.

**Headline risks remain.** While BP shares have withstood a litany of headlines already, incremental buyers of BP shares should only enter knowing that the U.S. government may (if media speculation proves accurate) have a reasonably good chance of claiming criminal negligence, that the dividend may be cut and that the total ticket for gross undiscounted Macondo liabilities may exceed \$100 billion.

Robert A. Kessler, CFA, CPA  
713-546-7208  
[rkessler@simmonsco-intl.com](mailto:rkessler@simmonsco-intl.com)

Brandon Mei, CPA  
713-546-7282  
[bmei@simmonsco-intl.com](mailto:bmei@simmonsco-intl.com)

Kazim Khoja  
713-546-7305  
[kkhoja@simmonsco-intl.com](mailto:kkhoja@simmonsco-intl.com)

**\*Important disclosures appear in Appendix D**

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## Summary and Investment Conclusion

**Upgrading to Overweight.** We are upgrading to Overweight from Neutral. While BP shares are not without risk, we find bankruptcy unlikely, risk/reward compelling and government-to-government debate generally helpful to BP's survivability. BP may ultimately be headed towards criminal negligence charges, in which case they would likely settle before conviction and they may decide to suspend or temporarily reduce the dividend. Both of these items have been in the mainstream media of late already. Meanwhile, we estimate that BP's pre-Macondo liquidation value is in the range of \$130 - \$192 billion, well above our undiscounted net Macondo liability range of \$18 - 91 billion, leaving a base case theoretical residual value of \$38/adr if BP were to be immediately liquidated (not likely, in our view). When instead the Macondo liabilities are paid over 10+ years, the net present value of those liabilities is further reduced. Net of these discounted liabilities (10% discount rate, 10 years), BP shares are worth, by our estimates, \$24-58/adr, offering an attractive risk reward balance if (28)%/+76%.

**Valuation.** For perspective, at \$32.78/adr, BP shares are 26% cheaper than when oil prices bottomed at \$10/bbl on December 10, 1998 (BP was at \$44.12/adr on 12/10/98), and roughly equivalent in terms of market capitalization. Meanwhile, the company's book value of \$104 billion (\$33/adr) in 1Q'10 is \$62 billion greater than the \$43 billion (\$13/adr) YE-'98 value. The company's 1Q'10 net PP&E balance of \$108 billion is +96% (+\$53 billion) vs. 1998 levels and net debt of \$25 billion currently is up \$12 billion vs. 1998 levels. 2009 reserves of 18 billion boe are up 30% and production of 4 mmboed is up 35% (growth not organic). At \$102 billion currently, BP's market cap has lost \$84 billion since April 19th (the day before Macondo) and \$50 billion relative to the XOJ. Prior to recording Macondo expenses, BP shares trade at 4.5x our '11 earnings vs. 7.2x for the majors as a group and 11.6x for the S&P 500. The stock trades at 3.2x 2011 EV/DACF vs. major oil peers at 4.7x (pre-Macondo). Obviously, this is all pre-Macondo. How cheap BP looks post-Macondo is by definition tied to the net present value of Macondo liabilities. It appears to us that BP shares are

"discounting" approximately \$64 billion in after-tax Macondo liabilities.

**Macondo Liabilities.** Our base case assumption is that BP's all-in after-tax undiscounted share of Macondo liabilities will be \$42 billion (range: \$18 - 90 billion). Pre-Macondo, BP has a book value of \$104 billion (liquidation value of \$160+ billion, we estimate), gross debt of \$32 billion, cash of \$7 billion (net debt \$25 billion), unused debt facilities of ~\$10 billion, free cash flow from operations after capex and after dividends of \$7 billion per year at oil prices of \$75/bbl (\$17 billion/yr before the \$10 billion/yr dividend payment). The current Macondo spend rate of \$28mm/day (100%-basis) equals \$10 billion per year (gross). We expect that it will be several years, if not a decade or more, before the full extent of Macondo-related liabilities will be known and paid. Moreover, while BP's cost of debt is increasing considerably, we believe in our base case scenario that the pace of spending will remain slow enough so as to allow the company adequate liquidity.

**What's in the stock for Macondo.** We estimate that it would take ~\$64 billion in BP net Macondo liabilities to put BP shares on par with valuation of the other major oils. BP shares trade at 4.5x our 2011 pre-Macondo earnings vs. 7.2x for the majors. Placing BP shares at 7.2x would add \$20/adr or \$62 billion in value. Ex-Downstream assets and ex-Macondo liabilities, BP's current enterprise value attributable to upstream assets of \$116 billion equates to \$6.46/boe for the 18 billion boe of 1P reserves, ~36% cheaper than the majors group average of \$10.06/boe. Placing BP shares on par with the valuation of the major oil group average on a \$/boe basis (pre-Macondo) would add \$65 billion in market cap.

**Dividend.** We suspect that the BP board will review the dividend and may or may not make the determination that a deferral, cut or share-based dividend will be preferable to a cash dividend for 2Q'10 (payment in 3Q). Among the options, we suspect, may be a double-cash dividend paid in a subsequent quarter.

Figure 1: E&P Liquidation Value

BP Upstream Sum of Parts Analysis																						
YE09 Statistics																						
2009 Total Production (MMbbl / mboed / boe/d)			2009 YE Oil Reserves (mmboe)			2009 YE Gas Reserves (bcf)			2009 YE Total Reserves (mmboe)			Weighted Average Allocation of Reserves			YE09 PV-10			Estimated Upstream Enterprise Value				
Oil	Gas	Total*	PD	PUD	IP	PD	PUD	IP	PD	PUD	IP	Proved	Other	Total	\$mm	\$mm	\$mm	\$/boe	\$/boe	\$mm	\$mm	
UK	168	618	271	403	291	694	1,602	670	2,272	670	403	1,073	3,335	3,335	7,100	12,088	10,662	15,812	\$ 12.32	\$ 13,212	\$ 12,944	\$ 11.27
Norway	40	16	43	83	184	267	49	397	446	91	250	341	341	720	1,900	3,886	3,393	2,689	\$ 11.50	\$ 3,824	\$ 3,413	\$ 2.85
EUROPE	208	634	314	486	475	961	1,651	1,067	2,718	761	653	1,414	2,982	4,396	9,000	15,974	14,055	18,502	\$ 12.12	\$ 17,736	\$ 16,357	\$ 58.347
US	665	2,316	1,051	1,862	1,211	3,073	9,632	5,633	15,216	3,459	2,150	5,609	11,828	17,437	31,000	63,206	55,754	61,923	\$ 13.48	\$ 75,603	\$ 63,972	\$ 11.27
Canada	8	283	52	11	1	12	716	453	1,169	130	77	207	436	643	500	2,331	2,056	3,024	\$ 22.85	\$ 4,727	\$ 3,035	\$ 2.85
NAM	673	2,579	1,103	1,873	1,212	3,085	10,299	6,086	16,385	3,990	2,226	5,816	12,264	18,080	31,500	65,537	57,810	64,348	\$ 13.81	\$ 80,331	\$ 67,006	\$ 58.347
SAM	61	2,492	476	49	56	105	3,177	7,393	10,570	579	1,288	1,867	3,936	5,803	5,100	21,035	18,555	27,793	\$ 9.63	\$ 17,971	\$ 21,339	\$ 11.27
Africa	304	621	408	422	454	876	1,107	1,454	2,561	607	696	1,303	2,747	4,050	13,100	14,681	12,950	23,777	\$ 17.84	\$ 23,248	\$ 18,664	\$ 2.85
Rest of Asia	123	610	225	182	334	516	1,579	249	1,828	445	376	821	1,731	2,551	9,500	9,248	8,158	13,109	\$ 10.00	\$ 8,207	\$ 9,680	\$ 11.27
Australasia	31	440	104	58	57	115	3,219	3,107	6,326	595	575	1,169	2,466	3,635	6,600	13,177	11,653	6,088	\$ 10.00	\$ 11,693	\$ 10,645	\$ 58.347
Total (Ex-EA)	1,400	7,376	2,629	3,070	2,588	5,658	21,032	19,356	40,388	6,575	5,814	12,389	26,126	38,515	74,800	139,612	123,151	153,415	\$ 12.80	\$ 156,566	\$ 145,691	\$ 11.27
Pan America	101	392	166	407	405	812	1,252	1,010	2,262	616	573	1,189	2,307	3,686	4,700	13,398	11,819	9,705	\$ 9.63	\$ 11,447	\$ 11,592	\$ 11.27
Africa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$ 17.84	\$ 51	\$ 356	\$ 2.85
Rest of Asia	840	601	940	2,351	1,988	3,549	11,035	579	2,282	695	1,285	379	15,206	19,735	9,000	41,156	38,509	54,256	\$ 10.00	\$ 32,499	\$ 41,033	\$ 11.27
Rest of Asia	194	42	201	363	120	483	600	376	493	376	120	493	1,550	1,550	600	5,617	4,955	11,728	\$ 10.00	\$ 9,985	\$ 6,824	\$ 11.27
Equity Affiliates	1,135	1,035	1,308	3,121	1,732	4,853	3,035	1,707	4,742	3,627	2,017	5,643	18,841	24,485	14,600	63,593	56,095	76,288	\$ 9.26	\$ 92,273	\$ 62,063	\$ 58.347
ESP Valuation	2,535	8,411	3,837	6,191	4,320	10,511	24,067	21,063	45,130	10,202	7,831	18,033	44,967	63,000	89,400	203,205	179,247	228,704	\$ 11.69	\$ 210,659	\$ 203,754	\$ 11.27
Weighted Allocation is based on W9 IP Reserves. TNK-BP Allocation separate																						
YE09 PV-10 is based on \$59.31/bbl of Brent & \$3.82/ mcf Henry Hub																						
EV Based on IP Reserves																						
EV Based on Total Reserves																						
EV Based on Production Rate (\$/boe)																						
Herold & SCI estimates																						
6:1 Conversion Ratio used																						
Average includes 80% Majors, 20% E&P																						
Implied MV																						
189,336																						
165,378																						
215,836																						
196,991																						
191,685																						

Source: Simmons & Company International

## Macondo Liabilities

There appear to be multiple state, federal and common law jurisdictions which apply to the potential net Macondo liability for BP. The possibility of gross negligence or criminal claims by the U.S. Department of Justice appears, in our view, to open up significant additional potential for punitive damages and higher federal fines. We attempted to fully load the high-end pre-tax gross Macondo estimate as much as possible so as to avoid a negative surprise relative to our analysis. That said, predicting the outcome with any reasonable degree of precision is near impossible. We calculate a range of gross after-tax Macondo liabilities of \$20 billion to \$91 billion, with a base case assumption of \$46 billion applicable to BP. We have made an assumption for the time being, which may or may not prove accurate, that all liabilities arising out of gross or criminal negligence on the part of BP as operator, including punitive damages, Clean Water Act fines that exceed the \$1,100 per bbl standard fine and claims from insurance companies covering the Deepwater Horizon, will accrue directly to BP and not to Anadarko. If BP were in fact to be found grossly negligent, we suspect that their partners in the Macondo well would have an incentive to attempt to contest much of the liabilities otherwise accruing to them as responsible parties.

**Figure 1: Summary of Estimated Macondo Liability**

\$mm	After-Tax				BP Worst Case Scenario (A-T)	Pre-Tax TOTAL
	BP	APC	Mitsui	TOTAL		
High	80,389	7,258	2,903	90,550	100% 90,550	139,307
Mid	42,065	3,148	1,259	46,472		71,495
Low	17,864	1,347	539	19,750		30,385

Source: Simmons & Company International

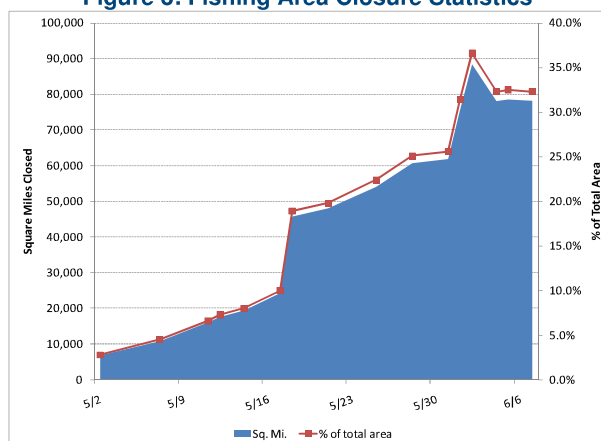
**Commercial Fishing.** Commercial landing statistics published by NOAA for the US\$ value of commercial landings in the U.S. Gulf Coast in the 5 affected states summed to \$661mm in 2008 (the latest year for which information is available). In our scenarios for damage awards, we assumed anywhere from 37% to 100% of the equivalent full-year 2008 commercial fishing revenue would be reimbursed by the Macondo partners, representing a range of liability of **\$424-661mm and a mid-point of \$364mm**. Thus far, NOAA's website reports that, at peak on June 2, 2010, 36.6% of the total fishing area (88,522 square miles) was closed. As of June 7, 2010, 32.3% of the total area remained closed (78,264 square miles). Updated statistics can be found at the following link: [Fishing Area Closure Statistics](#).

**Figure 2: Commercial Fishing Industry (Wholesale)**

Commercial Fishing Landings	AL	FL (WC)	LA	MS	TX	Total
Total (\$mm)	44	122	275	44	176	661
High	100%	100%	100%	100%	100%	
Mid	75%	75%	75%	75%	0%	
Low	50%	50%	50%	50%	0%	
Commercial Fishing -- High	44	122	275	44	176	661
Commercial Fishing -- Mid	33	92	206	33	0	364
Commercial Fishing -- Low	22	61	137	22	0	243

Source: Simmons & Company International

**Figure 3: Fishing Area Closure Statistics**



Source: Simmons & Company International

**Seafood Value Added.** In our discussion with industry representatives, we found that, beyond the first onshore delivery point, Gulf Coast seafood processing, packaging, transportation, preparation and restaurant service is generally believed to add another \$3.3 billion in derived annual economic value (5x the initial landed seafood value). While not as directly affected by the spill as fishermen, we believe it is reasonably prudent to assume some impact to the "seafood value add" as we'll term it.

## Macondo Liabilities

Processing business is presumably down together with fish landings and while many restaurants are likely to purchase alternate seafood from neighboring states or elsewhere in the U.S., the patronage of Gulf Coast area seafood establishments may be affected by some yet to be determined amount. We have assumed that 5-15% of the annual Seafood Value Add is affected by the spill for the purposes of this analysis, representing a range of liability of **\$165-495mm and a midpoint of \$331mm**.

**Figure 4: Seafood Value Added**

Additional Seafood Economy	AL	FL (WC)	LA	MS	TX	Total
Total (\$mm)	221	612	1,374	218	880	3,307
High	15%	15%	15%	15%	15%	
Mid	10%	10%	10%	10%	10%	
Low	5%	5%	5%	5%	5%	
Seafood Economy -- High	33	92	206	33	132	496
Seafood Economy -- Mid	22	61	137	22	88	331
Seafood Economy -- Low	11	31	69	11	44	165

Source: Simmons & Company International

**Recreational Fishing.** The American Sportfishing Association (ASA) calculated that in 2006, retail sales associated with saltwater sportfishing in the 5 states potentially affected by the spill was \$4,740mm and was associated with some 82,741 jobs, including 3,762 in Alabama, 51,588 in Florida, 7,733 in Louisiana, 1,116 in Mississippi and 18,542 in Texas. The saltwater fishing statistics can be found at [Saltwater Stats](#) and the general discussion of the ASA's analysis can be found at [ASA Fishing](#). While the ASA calculates a total economic benefit that is larger than the direct sales figure (economic multiplier effect), we have assumed for the time being that only those that suffer a direct loss of revenue will be able to successfully argue a loss claim as a result of the Macondo incident. Thus, we have taken total saltwater sportfishing-related retail sales in 2006 as estimated by the ASA as a proxy for 2010 sales, and assumed a range of detrimental impact on sales as represented in the table that follows. While our assumptions for individual states vary, in aggregate, the output of our calculation implies total claims for lost revenue are likely to be in the range of **\$725-\$1,320mm, with a mid-point of \$848mm** and

constituting 15-28% of the total revenue figure quoted by the ASA.

**Figure 5: Saltwater Sportfishing**

Saltwater Sportfishing	AL	FL	LA	MS	TX	Total
Total (\$mm)	227	2,998	472	63	981	4,741
High	30%	30%	50%	30%	10%	
Mid	20%	20%	30%	20%	5%	
Low	10%	20%	10%	10%	5%	
Recreational Fishing -- High	68	899	236	19	98	1,320
Recreational Fishing -- Mid	45	600	142	13	49	848
Recreational Fishing -- Low	23	600	47	6	49	725

Source: Simmons & Company International

**Tourism.** Tourism is big business in the states that border the spill, particularly for the beaches in Florida. Of the some \$767 billion in direct travel spending for the entire U.S. in 2008, it appears that approximately 20% was spent in the 5 states that border the Gulf of Mexico. Under our rough assumptions as defined in the scenario descriptions that follow, we calculate a potential range of claims for lost economic benefit from tourism in the Gulf Coast region of **\$3,598-\$19,386mm with a mid-point of \$10,158mm**.

**Figure 6: Tourism**

Tourism	AL	FL	LA	MS	TX	Total
Total (\$mm)	9,600	65,200	9,300	6,000	60,800	150,900
High	18%	17%	50%	15%	2%	
Mid	9%	8%	30%	8%	1%	
Low	4%	3%	10%	3%	0%	
Tourism -- High	1,680	10,758	4,650	900	1,398	19,386
Tourism -- Mid	840	5,379	2,790	450	699	10,158
Tourism -- Low	336	2,152	930	180	0	3,598

Source: Simmons & Company International

- Florida:** Economic benefits derived from tourism were estimated at \$65,200mm for Florida in 2008 ([Florida](#)), of which approximately 1/3 appears to be attributable with the Western half of the state (including the panhandle). In our worst case scenario, we assume that 50% of the 33% of the full-year tourism benefit for Western Florida is claimed from Macondo, our mid-case assumes 25% of the 33% is affected and our low-case assumes 10% of the 33% is affected. This places the total compensation to Florida businesses for loss of tourism at \$2,152-\$10,758mm with a mid-point of \$5,379mm.

**Macondo Liabilities**

- Louisiana.** According to the Travel Industry Association, in 2008, domestic travelers spent \$9.3 billion in Louisiana ([Travel Impact on Louisiana](#)). Recently, the summary of a study commissioned by the Louisiana Office of Tourism published on May 28, 2010 ([Louisiana Tourism Survey](#)) noted that 26% of survey respondents who claim to have previously booked plans to visit Louisiana further claim to have cancelled their plans. Based on this, our base case assumption is that 30% of an assumed \$9.3 billion Louisiana tourist industry is negatively affected by the spill, with a range of 10-50%. This results in a projected damage claim of \$930-\$4,650mm with a mid-point of \$2,790mm.
- Texas:** Direct travel spending in Texas was estimated at \$60,600mm for 2008 ([Texas](#)), including approximately \$13,892mm in the Gulf Coast region (23% of the total state). In our scenarios for Texas, we assume that 0-10% of the 23% of Texas tourism that is on the Gulf Coast is claimed for reimbursement, representing loss of income claims ranging from \$0-\$1,398mm with a mid-point of \$699mm.
- Alabama:** An estimated \$9,599mm was spent on travel to Alabama in 2008 ([Alabama](#)), of which \$3,323mm (35%) was in the Gulf Coast region. Our analysis assumes that up to 50% of the 35% of travel expenditures for Alabama would be forgone as a result of the spill, resulting in an assumed range of claims of \$336-\$1,680mm with a mid-point of \$840mm.
- Mississippi:** An estimated \$5,390mm was spent on tourism in Mississippi in 2008 ([Mississippi](#)), of which 30% was in the 6 counties that were closest to the Gulf, with 25% in Harrison county alone. Similar to Alabama, we have assumed that up to 50% of the 30% of tourism that is in the Gulf Coast area is

affected by the spill, resulting in a range of forgone economic benefit of \$180-\$900mm with a mid-point of \$450mm.

**Clean Water Act (CWA).** As discussed under the “Federal Prosecution” section of this report, the Clean Water Act grants the Environmental Protection Agency (EPA) the authority to levy a civil fine on companies based on the number of barrels discharged into the environment. The fine ranges from \$1,100 per barrel to \$4,300 per barrel. Under both our mid and high case scenarios, we assume that the per barrel fine will be placed at the high end of the range. New government estimates for the rate of flow are 20-40 kbd (implicit mid-point of ~30 kbd) vs. the most recent prior estimates of 12-19 kbd (implicit mid-point of ~16 kbd). Perhaps by now the increased estimate should have been obvious to the casual observer as BP has claimed they are collecting 15 kbd from the Lower Marine Riser Package (LMRP) and yet there are still plumes visible on the real-time ROV cameras. Under our assumption for the high-end penalty under the CWA, we assume an average flow rate of 32 kbd for 300 days (starting at a much higher rate, then by early June mitigated at least 15 kbd of capture from the LMRP). Applying the maximum fine of \$4,300 per barrel to the implied 9.5 mmb released in this scenario imply a staggering \$40,850mm possible fine under the CWA. On the low end, we assume a fine of \$990mm under the CWA. It is our understanding that the EPA considers circumstantial factors such as the degree of response, compensation and clean-up efforts when levying the fine, but that they are not necessarily bound to a specific outcome.

**Figure 7: Clean Water Act (CWA)**

Clean Water Act	kbd	days	mmb	\$/bbl	
High	32	300	9.5	\$4,300	40,850
Mid	14	180	2.6	\$4,300	10,965
Low	10	90	0.9	\$1,100	990

Source: Simmons & Company International

**Macondo Liabilities**

**Punitive Damages and Additional Penalties.** It appears to us that there are multiple venues through which additional fines and penalties may be levied against BP, particularly if they are found guilty of gross negligence. Under common law, we assume by default a 1x punitive damage award for all losses defined above in the categories of Commercial Fishing, Seafood Value Add, Sportfishing and Tourism. Further, as per the terms of the Alternative Fines provisions, the U.S. federal government has the authority to collect a fine up to 2x the amount of damages suffered by others as a result of a violation under the act. Under our most extreme cost scenario, we assume a full 3x punitive damage award/incremental fee.

**Figure 8: Punitive Damages and Additional Fines**

Punitive Damages / Additional Fines	Multiplier	\$mm
High	300%	65,593
Mid	200%	43,729
Low	100%	21,864

Source: Simmons & Company International

**Other Liabilities.** In our analysis, we have also assumed a blanket \$500mm further liability to cover several other pieces of applicable legislation, including The Refuse Act (potential criminal penalties for discharge of oil), Migratory Bird Treaty (potential criminal penalties for harming or killing migratory birds), the Endangered Species Act (criminal penalties) and Outer Continental Shelf Lands Act (includes MMS regulations and possible civil and criminal penalties).

**Figure 9: Direct Clean Up**

Direct Clean Up	days	\$mm/day	
High	300	\$30	9,000
Mid	180	\$20	3,600
Low	90	\$20	1,800

Source: Simmons & Company International



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## Federal Prosecution

While there is little precedent for federal fines of the order of magnitude that are likely in the case of the Macondo accident (particularly since OPA enacted), we see multiple venues possible and discretionary fines by the EPA likely on several fronts. The net effect is that one physical damage or loss of income claim could effectively be “grossed up” by up to a factor of 4x. This would be in addition to civil penalties levied by the EPA and on top of the direct physical clean up costs, which are not limited under the statutes. Additionally, each of the individual states affected generally has its own oil pollution statutes, some of which do not have limits. Our analysis concludes that there is considerable flexibility on the part of the federal government and multiple possible state and local common law venues available to inflate the total package of Macondo liabilities to significant levels (over \$100 billion in an extreme case). That said, we suspect that authorities, particularly those ultimately held accountable to elected officials, may determine that a lower amount may be prudent so as to avoid setting a precedent for a single-well accident in the Gulf of Mexico resulting in a level of liabilities that would bankrupt all but the largest of the major integrated oils, the de-facto result of which would make any go-forward development in the Gulf of Mexico a “big oil only” game. That, in turn, is likely to be viewed as counter-productive to the political ambitions of the current majority view in Washington, we think.

**Clean Water Act (CWA).** Enforced by the Environmental Protection Agency (EPA).

- **Civil Penalties:** \$1,100 per bbl discharged (\$4,300 per bbl in the event of gross negligence). Figures quoted in earlier versions of the act of \$1,000 and \$3,000, respectively, have been adjusted for inflation. There is no cap on these fines and, in our opinion, based on discussion with attorneys familiar with the matter, the EPA is unlikely to allow the offset from barrels that were discharged, then subsequently recovered (skimmed, burned, etc). In other words, the “gross” discharge applies at the point the oil is released into the body of water. Note that these civil penalties are in addition to any criminal fines, direct clean-up costs, punitive damage awards, loss of income claims, etc. These are fines owed directly to the federal government for the discharge of regulated contaminants.
- **Criminal Prosecution:** In addition to civil penalties, under the CWA, in the case of negligence, the EPA has the authority to levy criminal fines, the limits of which vary by the severity of the incident and the degree of negligence. Penalties range from 1yr imprisonment and \$2,500 per day per incident (multiple violations may be stacked on top of one another) to 15 years imprisonment and \$250k per violation per day. Additionally, the EPA has shown

an increasing propensity to apply the Alternative Fine provisions, under which the organization has the authority to levy up to 2x the gross gain or, as is likely more applicable in the case of BP, the gross loss of the affected party. This fine would be in addition to any recovery available to the affected party (fishermen, for instance) available through common law claims, state-level statutes, and/or the federal Oil Pollution Act (OPA), including any separate punitive damage awards directly to the affected parties.

**Oil Pollution Act (OPA).** Under the oil pollution act, a responsible party must pay all removal fees (unlimited) and all natural resource damages (unlimited). Additionally, the law allows that certain amounts be made available to affected parties, including economic losses, the limit of which varies by type of incident, with a \$75mm category generally presumed to be applicable in the case of the Macondo spill. In our discussion with attorneys there appears to be a general assumption that the \$75mm cap will not serve to limit the liability of BP as claimants are likely to be able to file common law (or state-level statute-based claims) in local courts and, in the event of gross negligence, may be entitled to punitive damages and no cap. Moreover, BP has said fairly explicitly that they do not expect to be bound by the \$75mm threshold.

**Joint-and-Severall Liability.** While precedent is limited, it appears possible that if one of the parties were to be bankrupt, that the other responsible party would be jointly and severally liable for the full unpaid portion of the OPA-based damages. Ordinarily, we'd expect the operating agreement to govern, and provide indemnification against working interest owners such that the non-operator's net financial exposure is limited to their working interest. However, this assumes solvency. While joint-and-severall liability would apply under the OPA, language within the CWA focuses more on the resource owner or operator of a vessel (presumed to be BP, since the Deepwater Horizon, while operated by Transocean, was done so under the direction of BP). Thus, it is our very rough assumption that non-OPA CWA-based fines are more likely to be contested by non-operating partners in Macondo (Anadarko-25%, Mitsui-10%). Also, we suspect that the non-operators will have a

reasonable defense against having to pay claims that are based on gross operator negligence, such as the Alternative Fine provisions of the CWA, punitive damage awards to affected parties under common law and the extra CWA-based civil penalties that are associated with gross negligence.

**Occupational Safety and Health Administration (OSHA).** With the Texas City explosion in 2005, BP was subjected to some of the largest fines in OSHA's history and the company already has the worst record of any major oil company in the U.S. in terms of the number and dollar amount of serious violations. While OSHA fines are not likely to be the most significant component to BP's total Macondo liability, we expect that the company's poor record in recent years will factor in negatively for the calculation of any fines applicable in the case of Macondo.

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## Resources

### Useful Links:

[Live Feeds from ROVs](#)

[NOAA Trajectory Maps](#)

[DOE Horizon Data Site](#)

[Fishing Area Closure Statistics](#)

# Valuation

TABLE 1: ASSUMPTIONS

	Updated	2008	1Q'09	2Q'09	3Q'09	4Q'09	2009	1Q'10	2Q'10	3Q'10	4Q'10	2010	1Q'11	2Q'11	3Q'11	4Q'11	2011
Crude Oil (WTI)	5/14/10	99.55	43.01	59.59	68.12	76.06	61.80	78.76	77.90	77.36	80.43	78.62	81.79	82.80	83.60	84.33	83.14
Natural Gas (HH)	5/14/10	9.01	4.84	3.54	3.35	4.20	3.98	5.27	4.14	4.47	5.02	4.72	5.56	5.34	5.49	5.89	5.57
UK Natural Gas (NBP)	5/14/10	58.19	46.95	27.59	21.70	28.04	30.99	35.69	37.12	39.18	46.77	39.72	51.35	45.38	45.02	45.63	46.62
Crack Spread (USGC 321)	5/14/10	8.80	9.06	7.32	5.73	4.47	6.63	6.49	11.22	10.67	6.00	6.60	6.88	10.59	9.47	5.63	8.14
WTI - Arab Medium	5/14/10	7.98	0.61	0.83	2.36	3.94	1.95	1.73	(0.82)	0.00	4.00	1.23	4.00	4.00	4.00	4.00	4.00

TABLE 2: FOREIGN CURRENCY

Currency	GBPUSD	EURUSD	CADUSD	USDNOK	USDBRL
Spot Rate	1.47	1.21	1.03	6.48	1.80

TABLE 3: MULTIPLES

Company	Ticker	SCI Rating	6/10/2010 Price	SCI P/E		Cons P/E		Relative P/E		P/CF		EV/DACF		EV/EBITDAX		
				2010E	2011E	2010E	2011E	2010E	2011E	2010E	2011E	2010E	2011E	2010E	2011E	
BP	BP	O	\$32.78	5.3	5.2	5.3	4.7	0.4	0.5	3.7	3.4	4.6	4.1	2.9	2.8	
Chevron	CVX	O	74.17	8.0	6.9	8.5	7.5	0.6	0.6	4.6	4.1	4.5	4.0	3.1	2.7	
ConocoPhillips	COP	O	53.37	9.2	6.6	8.7	7.2	0.6	0.6	4.3	3.7	5.5	4.7	3.6	3.0	
ExxonMobil	XOM	O	61.89	10.8	8.9	10.7	8.9	0.8	0.8	6.8	5.8	6.7	5.7	4.7	4.0	
Royal Dutch Shell	RDSA	A	52.35	9.2	7.2	9.3	7.4	0.7	0.6	6.0	4.3	7.2	5.1	4.0	3.4	
Total S.A.	TOT	O	46.71	7.2	6.0	7.0	6.2	0.5	0.5	4.2	3.8	4.9	4.4	3.1	2.7	
<b>Majors</b>																
Hess	HES	O	\$52.66	9.9	8.1	10.8	8.5	0.7	0.7	3.5	3.4	3.9	3.8	3.0	2.8	
Marathon	MRO	O	32.19	10.0	6.7	10.2	6.7	0.7	0.6	3.7	3.0	4.3	3.5	3.4	2.7	
Murphy	MUR	N	54.23	11.1	8.6	11.3	8.6	0.8	0.7	4.2	3.5	4.5	3.8	3.4	2.8	
Occidental	OCY	O	83.49	14.5	11.0	14.3	10.9	1.1	0.9	7.4	6.0	7.3	6.0	4.4	4.4	
<b>U.S.</b>																
BG Group	BRGY	O	\$79.49	14.9	11.7	14.4	11.6	1.1	1.0	9.2	7.8	9.7	8.3	7.3	6.0	
ENI	E	N	37.16	7.2	6.4	7.4	6.2	0.5	0.6	3.1	3.4	4.5	4.9	2.7	3.1	
Petrobras	PBR	O	38.57	8.7	6.9	9.9	8.3	0.6	0.6	5.7	4.9	7.0	6.1	4.7	4.1	
Repsol	REP	U	20.33	9.6	8.6	8.2	6.8	0.7	0.7	3.3	3.4	6.0	6.1	4.3	4.4	
Statoil A.S.A.	STO	O	20.80	10.4	7.6	9.5	8.0	0.8	0.7	4.0	3.5	5.0	4.3	2.4	2.1	
Suncor	SU	O	32.42	23.7	10.3	21.5	12.0	1.7	0.9	8.6	5.4	10.1	6.5	8.6	5.7	
<b>International</b>																
Int. Oil W. Avg (EV)				11.3	8.0	11.3	8.7	0.8	0.7	5.7	4.8	6.8	5.9	4.7	4.0	
Int. Oil W. Avg (MV)				9.8	7.7	9.9	8.0	0.7	0.7	5.5	4.6	6.2	5.2	4.2	3.6	
S&P 500	SPX		\$1,086.84	13.7	11.6	13.7	11.6									

TABLE 4: VALUATION SUMMARY

Company	Ticker	6/10/2010 Price	Price Target	Target % of NAV	Current % of NAV	Fwd 4-Qtr. Dividend	12-Month Total Return			Market Value		Enterprise Value		Net Debt to Total Capital		International Valuation	
							% to Target	Div Yield %	Tot Ret %	1Q10 Shares o/s	Current MV (\$MM)	1Q10 Net Debt	Current EV (\$MM)	1Q10 Book Equity	Current Net Debt/Cap	6/10/2010 Price	SCI Target
BP	BP	\$32.78	\$52	100%	63%	\$3.39	58.0%	10.4%	68.4%	3,128	\$102,546	\$25,312	\$127,858	\$104,079	20%	366p	587p
Chevron	CVX	74.17	114	100%	65%	2.74	53.9%	3.7%	57.6%	2,004	148,653	-287	148,366	95,103	0%		
ConocoPhillips	COP	53.37	90	100%	59%	2.20	68.3%	4.1%	72.4%	1,504	80,245	28,233	108,478	82,837	31%		
ExxonMobil	XOM	61.89	92	100%	67%	1.78	48.6%	2.9%	51.5%	4,756	293,111	-1,419	291,692	112,749	-1%		
Royal Dutch Shell	RDSA	52.35	83	100%	63%	3.39	58.3%	6.5%	64.7%	3,066	160,526	28,863	189,389	138,010	17%	€21	€34
Total S.A.	TOT	46.71	84	100%	55%	2.82	80.9%	6.0%	86.9%	2,243	104,757	18,838	123,592	79,260	19%	€38	€70
<b>Majors</b>																	
Hess	HES	\$52.66	\$99	100%	59%	\$0.42	88.7%	0.8%	89.5%	327	17,220	2,965	20,185	14,027	17%		
Marathon	MRO	32.19	41	100%	79%	0.97	26.7%	3.0%	29.7%	711	22,887	5,278	28,165	22,196	19%		
Murphy	MUR	54.23	75	100%	72%	1.04	38.4%	1.9%	40.3%	193	10,463	931	11,394	7,554	11%		
Occidental	OCY	83.49	141	100%	59%	1.44	68.8%	1.7%	70.5%	814	67,919	699	68,618	29,935	2%		
<b>U.S.</b>																	
BG Group	BRGY	\$79.49	\$123	100%	65%	\$0.93	54.2%	1.2%	55.4%	681	54,134	4,723	58,856	23,410	17%	1070p	1666p
ENI	E	37.16	61	100%	61%	2.47	63.4%	6.7%	70.0%	1,811	67,304	29,441	96,746	75,163	28%	€15	€25
Petrobras	PBR	38.57	62	100%	62%	\$1.46	61.5%	3.8%	65.3%	4,390	169,314	44,712	214,026	96,169	32%	R\$35	R\$56
Repsol	REP	20.33	31	100%	66%	1.05	51.0%	5.2%	56.2%	1,221	24,820	23,247	48,067	29,884	44%	€17	€25
Statoil A.S.A.	STO	20.80	31	100%	67%	1.22	48.6%	5.8%	54.4%	3,183	66,210	13,248	79,458	36,995	27%	kr 134	kr 200
Suncor	SU	32.42	48	100%	67%	0.40	49.4%	1.2%	50.6%	1,573	50,997	12,622	63,619	32,947	28%	CS33	CS50
<b>International</b>																	
Int. Oil W. Avg (EV)				100%	64%		56.9%	4.0%	60.9%	12,859	432,778	127,993	560,772	293,968	28.7%		
Int. Oil W. Avg (MV)							57.8%	4.4%	62.3%	31,585	1,441,105	237,405	1,678,510				
S&P 500	SPX	1,086.84				23.52		2.2%									