IN RE: OIL SPILL BY THE OIL RIG "DEEPWATER HORIZON"
IN THE GULF OF MEXICO, ON APRIL 20, 2010
MDL 2179

ROUND 3 EXPERT REPORT

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HIGHLY CONFIDENTIAL

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I. Executive Summary

In this report I respond to a variety of statements made in the expert report of Dr. Loren C. Scott (hereafter, Scott), submitted on September 12, 2014. Scott alleges my opinion regarding the magnitude of the economic harm that resulted from BP's spill is not supported by economic data,[1] and that my reliance on claims data as a proxy for economic harm caused by the Macondo oil spill renders my opinion regarding the magnitude of harm unreliable.[2] These critiques ignore my stated purpose, which was not to provide a precise estimate of the harm suffered, but rather to assess whether the harm was severe.[3] As such, my focus was on obtaining a rough idea of the general magnitude of damages. While they are only a rough estimate of a subset of harm resulting from the oil spill, the claims data provide conclusive evidence that the economic harm resulting from the Macondo oil spill was severe.

In response to Scott's assertion that economic data other than the claims payments reflects either no net negative impacts or quick recovery,[4] I provide data indicating that economic harm from the oil spill in fact lingered for years. Hotel revenues and real estate income both remained depressed in many gulf coast counties over the period from 2011 – 2014 when compared to counties that were unaffected by the oil spill. I also explain why Scott is incorrect in asserting that I failed to include any mitigating effect of BP's response payments in analyzing whether that the harm from the oil spill was severe. In fact, such a mitigating effect would already be reflected in the claims payments I relied upon, to the extent that claims payments were reduced as a result of avoided economic harm. Finally, I demonstrate why

[1] Scott Round 2 Report, at 7.
[2] Scott Round 2 Report, at 13.
[3] Mason Round 1 Report, at 5.
[4] Scott Round 2 Report, at 8.

BPXP's market share in the Gulf oil and gas industry provides helpful context for an analysis of BPXP's role in the overall Gulf region economy, contrary to Scott's assertions.

II. Claims payments are a valid rough estimate for a subset of economic damages resulting from the oil spill.

Scott argues that claims payments do not necessarily reflect actual damages, and that the "nature of litigation settlements" renders the use of the claim payments as a proxy for harm highly speculative.[5] But there is a long and venerated tradition of linking pre-trial negotiations to damages, going back to Posner:

> The plaintiff's minimum offer is the expected value of the litigation to him plus his settlement costs, the expected value of the litigation being the present value of the judgment if he wins, multiplied by the probability (as he estimates it) of his winning, minus the present value of his litigation expenses. The defendant's maximum offer is the expected cost of the litigation to him and consists of his litigation expenses, plus the cost of an adverse judgment multiplied by the probability as he estimates it of the plaintiff's winning (which is equal to one minus the probability of his winning), minus his settlement costs.[6]

Letting T_d represent the transactions costs borne by the defendant (litigation costs minus settlement costs) and T_p the transactions costs borne by the plaintiff, V_d the expected damages as estimated by the defendant and V_p the expected damages as estimated by the plaintiff, there will be a negotiated settlement so long as $V_p - T_p$ (the net amount the plaintiff anticipates receiving if the case goes to trial) is smaller than $V_d + T_d$ (the net amount the defendant anticipates paying if the case goes to trial). In this event, the negotiated settlement can fall anywhere between $V_p - T_p$ and $V_d + T_d$.[7] The negotiated settlement is equal to damages, plus a residual term that depends

[5] Scott Round 2 Report, at 6.
[6] US_PP_MAS012387, Richard A. Posner, An Economic Approach to Legal Procedure and Judicial Administration, 2 J. Legal Stud. 399 (1973), at 418.
[7] This logic is essentially the same as Posner uses, and the comparison I offer is equivalent to his inequality (1) in footnote 29. *Id.*, at 419.

on the two parties' bargaining strengths. That this amount is not precisely equal to the level of damages, either *ex ante* or *ex post*, does not mean the negotiated amount is an unreliable proxy for damages.[8]

Scott argues that there are individuals who received claim payments that exceeded their actual damages, and points to this as a reason my conceptual analysis is flawed.[9] This line of reasoning ignores the fact that the Gulf Coast Claims Facility (GCCF) required each claimant "to establish both actual financial loss and a connection between the loss and the Oil Spill."[10] In addition, Scott's line of reasoning completely ignores the possibility that some individuals received less than their actual damages. And there is good reason to believe there are such individuals. It is likely that some claimants are "risk averse."[11] This aversion to risk can have an impact on the negotiation process, because it can induce such parties to accept lower offers than their expectation of actual damages.[12] Indeed, there is evidence that some claimants felt

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[8] The foregoing discussion models the interaction of a single plaintiff. The logic applies equally well if there is a group of plaintiffs, as in a class action suit; in that case, the estimated damages are based on the group's aggregated damage, and the transactions costs are based on the combined costs of all group members. Nothing else of substance is different from the scenario I described.

[9] Scott Round 2 Report, at 28-29.

[10] US_PP_MAS009368, Gulf Coast Claims Facility Final Rules, at 7. The requirement of adequate documentation was explicitly emphasized: "**adequate documentation of damage attributable to the Oil Spill is required.**" *Id.*, at 2 (emphasis in original).

[11] It is widely accepted that most individuals are "risk averse," which is to say they would be willing to accept less than the actuarial value of a gamble in exchange for not playing that gamble (or, equivalently, they would be unwilling to pay an amount equal to the actuarial expected value of a gamble to be able to play that gamble). The generality of risk aversion was demonstrated centuries ago by reference to the "St. Peterburg's Paradox," under which a bet is proposed that pays $\$2^n$ if a series of coin tosses yields n consecutive heads before the first tails comes up. Such a bet has an infinite actuarial expected value, but most people would be unwilling to pay even as much as $100 to play the bet – thereby proving their risk aversion.

[12] US_PP_MAS012281, Samuel Issacharoff and John Fabian Witt, The Inevitability Of Aggregate Settlement: An Institutional Account of American Tort Law, 57 Vand. L. Rev. 1571 (2004), at 1571. See also US_PP_MAS012327, Robert J. Rhee, Tort Arbitrage, 60 Fla. L. Rev. 125 (2008), at 22: "victims are more risk averse, have greater opportunity cost, and are less

pressured to take a deal with the GCCF.[13] Accordingly, it is likely that there were claimants in the GCCF who settled for claims payments that were under-estimates of actual damages.[14]

The Court Sponsored Settlement Program, which supplanted the GCCF, obviated the potential for a class action suit. As such, the terms of the negotiated settlement were less likely to produce an underestimate of actual damages.[15] But that does not imply, as Scott argues on pages 20-23, that the resolution methodology under the Economic & Property Damages (E&PD) Settlement generates claims payments that are a poor proxy for the subset of actual damages included in that settlement. Indeed, the logic of the argument I presented above applies just as well here. In particular, BPXP would not have agreed to the E&PD settlement was that not in its

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diversified than tortfeasors. This profile influences the economics of the bargaining process. Defendants receive a discount to value that substantially funds the cost of accessing the pricing mechanism." Also, "[t]he plaintiffs lawyers, (sic) have asserted that delay in the interim claims process has been a method of manipulating claimants desperate for cash who snap up so-called quick payments (for which a general release of BP is required) and forego the partial or interim claims to which the statute entitles them without prejudice to making future claims for permanent loss." US_PP_MAS012254, George W. Conk, Diving into the Wreck: BP and Kenneth Feinberg's Gulf Coast Gambit, 17 Roger Williams U. L. Rev. 137 (2012).

[13] Rec. Doc. 912-13, Exhibit M (demonstrating the significant pressure applied by GCCF administrator Kenneth Feinberg to induce claimants to settle quickly). See also Exhibit 11923, Offshore Oil and Deepwater Horizon: Social Effects on Gulf Coast Communities Volume II, at 165-166 (drawing the comparison to claimants in the Exxon Valdez case, many of whom were forced to wait very long periods of time to receive compensation).

[14] As one observer noted, "Undoubtedly, there are some worthy claimants who are not getting as much money from Mr. Feinberg as they ought to. It's bound to happen." ANA-MDL-000198541, at 3. These concerns were exacerbated by concerns that the Mr. Feinberg was not an independent agent, as illustrated by the Alabama Attorney General issuing a "consumer alert," warning Alabama citizens about Mr. Feinberg's allegedly misleading statements. *Id.*, at 4. These concerns appear to have been borne out; see Rec. Doc. 1098 (finding that Mr. Feinberg and the GCCF were not totally independent of BP, and requiring that they inform claimants of that connection with BP). Also, " The GCCF is acting for and on behalf of BP in fulfilling its statutory obligations as a "responsible party" under the Oil Pollution Act of 1990." US_PP_MAS009368, Gulf Coast Claims Facility Final Rules, supra note 10, at 1.

[15] US_PP_MAS012327, at 11.

best interests,[16] and accordingly the claims payments provide an estimate of a subset of damages.[17]

Scott alleges the general invalidity of multiplying calculated compensation amounts to determine claims payments.[18] This allegation is tied to two arguments. The first argument is that the use of a risk transfer premium (RTP) in the E&PD program reflects a negotiated settlement between the parties, and therefore is uninformative about damages.[19] But as I explained above, in describing the extant law and economics literature that is relevant to this point, the negotiated settlement does convey information about damages.[20] The second argument is that adding in a payment for estimated future impacts overstates damages, on the grounds that key components of the Gulf economy, for example tourism, had recovered by the end of 2010.[21] As I discuss below, the claim of complete recovery after 2010 is incorrect; in fact, for two key Gulf Coast regions, tourism had not recovered by February of 2014. Scott further argues that the GCCF also suffered from the use of an adjustment factor, there called a future recovery factor.[22]

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[16] As Rhee notes, "[c]orporations treat tort liability like any other business decision." US_PP_MAS012327, at 13.

[17] As I noted above, I never argued that the estimate so produced was precise, only that it conveyed information regarding actual damages. In my view it is clear that the claims paid are informative in this sense.

[18] Scott round 2 report, at 13-17.

[19] *Id.*, at 14-16.

[20] Moreover, waiting until future damages had been realized would have magnified transactions costs associated with settling claims, thereby undercutting the value of the settlement program. As such, building a mechanism to address future damages was a rational way to address future anticipated damages. For example, the GCCF chose a recovery factor based on input from scientific and economic experts.

[21] *Id.*, at 13.

[22] *Id.*, at 16-17.

But here he neglects the fact that the GCCF's use of a future recovery factor thoughtfully relied on input from scientific and economic experts.[23]

In arguing that there are settlements under the E&PD process that overstate actual damages, Scott also glosses over two more important facts: that the claims evaluations are subject to careful review,[24] and that BPXP has had the opportunity to appeal any claims in excess of $25,000.[25] In fact, as of July 31, 2014, BPXP had appealed 3,973 of the 19,044 claims that were eligible for appeal.[26] Of these appeals, 3,715 had been resolved.[27] Claimants also have the right to appeal; as of July 31, 2014, there have been 1,362 such appeals, with 1,110 resolved.[28] Of the 4,825 resolved appeals, 2,204 resolutions can be compared to the original claim settlement. For nearly two thirds of these cases, the resolution left the settlement the same (1,414 cases, or 64.2%).[29] This objective confirmation of the settlement process corroborates the general validity of the empirical approach I used in arguing claims were a reasonable proxy for a

[23] US_PP_MAS009368 at 3 and 12-13. Moreover, the future recovery factor was not automatically applied to claimants with documented losses of $500,00 or more; final payments for these parties were determined on an individual basis, using input from the claimant and from the experts I mentioned in footnote 19.

[24] Rec. Doc. 13340, at 10. As of July 31, 2014, 89% of all claims settlements had been evaluated under the quality assurance feature of the Settlement Program.

[25] Rec. Doc. 6430-1, at 59.

[26] Rec. Doc. 13340, at 18. Scott does not acknowledge the fact that I remarked on BPXP's right to appeal any claims in excess of $25,000. Mason Report, note 65 at 35.

[27] See Table 14, Rec. Doc 13340 at 18. The resolved appeals were distributed as follows: 1,436 had been resolved by panel decision, 408 had been resolved by the parties, 83 were remanded to the claims administrator, 8 were administratively closed, 274 were withdrawn, 140, were inactive under re-consideration or re-review, and 1,366 had been returned for review.

[28] See Table 15, *Id.*, at 19. The vast majority of these resolutions, 885, are by panel. Of the remaining 224 resolved appeals, 85 were resolved by parties, 30 were remanded to the claims administrator, 45 were administratively closed, 38 were withdrawn, and 26 were returned for review.

[29] See Table 16, *Id.*, at 20.

subset of damages.[30] Scott's presumption that the E&PD program overstates damages, on the basis of specific anecdotal evidence, is invalid.

III. Economic data independent of the claims data show that the oil spill caused lingering economic harm.

Scott states that major industries in the Gulf Coast experienced no net negative impacts in many places, and where there were negative effects, recovery took place quickly.[31] This statement is based upon the analysis of hotel, tourism, and fisheries data included in Scott's initial report. As I pointed out in my Round 2 report, Scott misinterprets those data in his initial report.

Scott concludes that the hotel industry has recovered because REVpAR rates recovered to 2009 levels. But 2009 levels were likely depressed as a result of the national recession.[32] As I explain in my Round 2 Report at page 15, the appropriate question to determine whether economic harm occurred is "did REVpAR rates recover to levels one would have observed *had the oil spill not occurred*?"[33] The valid comparison is therefore between REVpAR rates in areas

[30] Others have arrived at broadly similar estimates for oil spill damages to fisheries, tourism and real estate. See US_PP_MAS012022, Lawrence C. Smith, Jr., L. Murphy Smith and Paul A. Ashcroft, Analysis of Environmental and Economic Damages from British Petroleum's *Deepwater Horizon* Oil Spill, 74 Albany Law Review 563 (2011), Exhibit 3 at 584 (estimating the combined damages for commercial fishery, tourism and real estate industries at $12.48 billion).

[31] "[T]he data shows that in many counties and parishes of the Gulf Coast states, the hotel industry did not experience losses in 2010, and where it was negatively affected by the spill, hotel occupancy and revenue recovered quickly by the fall of 2010 and continued strong growth in 2011, 2012, and 2013." Scott Round 2 Report, at 8. See also Scott Round 2 Report, at 17.

[32] See Bonanno Report, at 7, discussing the recession.

[33] This general line of inquiry – comparing a statistic, such as revenue per available room, to the likely level absent an intervention such as the oil spill, is standard fare in Economics. "As in

relativity unaffected by the oil spill versus areas affected by the oil spill, over the same time frame. This method controls for external factors such as a national recession that may cause REVpAR rates to vary from year to year. It is noteworthy here that the "independent analysis" to which Scott refers, by Dr. Joseph Aldy, uses this proper method, as it compares employment data in areas unaffected by the spill to employment data in areas affected by the spill over the same time frame.[34] This approach is consistent with the language used in the GCCF to calculate future damages, as articulated in its Final Rules: "There are two key issues: (1) the length of time until tourism fully recovers and (2) the rate of the recovery... The first issue is relatively straightforward – how many months will it take to get back to the number of tourists and the dollars they spend that would have occurred *without the oil spill.*"[35]

Using the Smith Travel Research database that Scott analyzed in his initial report,[36] I calculated Revenue per Available Room ("REVpAR") according to the same method that I applied in my Round 2 report.[37] I calculated REVpAR, by county for each month, for two key geographical regions that were exposed to the oil spill (Mississippi Gulf Coast and Florida Panhandle). Following Aldy's interpretation, I refer to these counties as the "treatment"

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standard damages assessments, *the task in calculating the loss people have experienced as a result of the spill is to determine the income (or property value) trajectory people would have had if the spill had not occurred*, the income path they have experienced to date and are expected to have in the future, and the difference between these." (Emphasis added). DEFEXP001025, Viscusi and Zeckhauser, at 1743.

[34] US_PP_MAS012208, Joseph E. Aldy, The Labor Market Impacts of the 2010 Deepwater Horizon Oil Spill and Offshore Oil Drilling Moratorium NBER Working Paper 20409 (2014), at 9. Ironically, Scott does note on page 23 of his Round 2 report the importance of considering key external factors, though he fails to properly do so in his analysis.

[35] US_PP_MAS009368, at 13 (emphasis added).

[36] BP-HZN-2179MDL09216195. This database shows, by county and by month, rooms available, rooms rented and revenues collected. This database also indicates the regions that are relevant to my analysis (Mississippi Gulf Coast, Mississippi Inland, Florida Panhandle, and Florida Atlantic Coast).

[37] Mason Round 2 Report at 16.

counties.[38] The pattern of REVpAR for these "treated" counties is compared to REVpAR for a set of "control" counties. For Mississippi, the control group consists of inland counties, while for Florida the control group consists of counties on the Atlantic Coast. In each case, the control counties were in the same state as the treatment counties, but were relatively unaffected by the oil spill. Further, as the control counties were exposed to the same background macroeconomic effects, and were in the same state as the treatment counties with which they are matched, one would expect to observe similar REVpAR values across treatment and control groups had the oil spill had not occurred. But the data show that REVpAR values for the control counties were significantly larger than REVpAR values for counties affected by the oil spill, from January 2011 through February 2014.[39] In Table 1, I show the results from this investigation.[40] The table

[38] US_PP_MAS012208, at 9.

[39] Scott argues that some areas had strong levels of activity during the period in 2010 after the spill; in particular, he references Dr. Aldy's report: "the net employment effect of the spill, spill response, and moratorium is a fairly precise zero for most parts of the Gulf Coast during 2010." US_PP_MAS012208, at 3, referenced in the Scott Round 2 Report at 9-10. While Aldy makes no effort to separate the effects of spill, spill response, and moratorium, there is evidence indicating the important role played by spill response efforts. Thousands of vessels were deployed for spill control efforts under the VoO program, which would blunt any adverse impacts of the spill upon employment. BP-HZN-2179MDL01871492, America's Gulf Coast: A Long Term Recovery Plan after the Deepwater Horizon Oil Spill, at 84. Also, "[a]t its peak, efforts to stem the spill and combat its effects included more than 47,000 personnel…" *Id.*, at 2. With this strong response, there would be increased economic activity in the surrounding region; this would naturally lead to enhanced employment levels that would offset any negative impacts on employment resulting from the spill. These increases are somewhat artificial, in that they would abate when the response efforts were terminated. BP-HZN-2179MDL08684142, at slide 4. Accordingly, it is prudent to treat the eight months in 2010 following the spill as potentially different from the period after the end of 2010.

[40] Because tourism is characterized by seasonal effects, with visitation patterns shifting month to month within a given year, I allow for different effects in each month, for both control and treatment groups. I also allow for county-specific fixed effects. As some areas may have had temporary increases in activity during the period in 2010 after the spill, as discussed in the previous footnote, I include an indicator variable that isolates the 8 months in 2010 following the spill, as well as an interaction term between this indicator variable and the control counties. I also include an indicator variable for the months starting with January 2011, and an interaction term between this indicator variable and the control counties. To evaluate the allegation in

shows the average difference in REVpAR between treatment and control counties over the period from January 2011 to February 2014.[41] In Florida, hotels in the panhandle received on average $8.12 less per available room than did hotels in Atlantic coast counties after 2010, while in Mississippi, hotels in Gulf coast counties received on average $6.29 less per available room than did hotels in Mississippi inland counties after 2010. In each case, the differences I estimate are statistically important.[42] These results provide powerful empirical evidence that Scott's claim that "hotel occupancy and revenue recovered quickly by the fall of 2010 and continued strong growth in 2011, 2012, and 2013" is incorrect.[43,44]

Table 1

Comparison of Tourism Revenues for Gulf Coast and non-Gulf Coast Counties

Comparison	Difference between average treatment and control counties after 2010
Florida panhandle vs. Atlantic coast	-8.12
Mississippi Gulf coast vs. inland	-6.29

Scott's Round 2 report that tourism in the Gulf Coast and Florida Panhandle had fully recovered by the end of 2010, one needs to evaluate the difference between treatment and control groups after 2010, controlling for the other effects mentioned above. A straightforward way to do this is by evaluating the impact associated with the interaction between control counties and the post-2010 indicator variable: if Scott is correct, the interaction term will not exert a significant effect, i.e. its coefficient will be statistically insignificant.

[41] The available data yield 1,054 observations for the analysis of Florida tourism and 754 observations for the analysis of Mississippi tourism.

[42] Specifically, the t-statistics for the estimated differences are 3.25 for Florida and 5.07 for Mississippi; the estimated difference between treatment and control groups after 2010 is statistically significant at better than the 1% level for both Florida and Mississippi. Paraphrasing Aldy's language, these results show a precisely measured non-zero effect.

[43] Scott Round 2 Report at 8.

[44] The results I present in Table 1 demonstrate ongoing damages in the two treatment groups, as compared to the corresponding control groups. In my round 2 report, I showed that the gap between treatment and control groups was actually growing over time. Mason Round 2 Report, at 15-21, particularly Figures 4, 5, 7 and 8.

The method I applied in my Round 2 Report – comparing changes in a variable of interest in a study area against changes in the same variable in a nearby but unaffected area – can also be applied to real estate markets.[45] Data on personal income in the real estate and rental and leasing sector for coastal counties is available from the Bureau of Economic Analysis (BEA).[46] This data is supplied for all coastal counties, by state; I use data for Florida in the following discussion. Using this data, it is straightforward to calculate the level of activity for a typical county in this sector. For Florida, there are data for two regions that were impacted by the oil spill (panhandle and gulf coast), as well as a region that was not impacted (Atlantic coast). In figure 1, I plot the annual level of personal income in the real estate, rental and leasing sector for 2009, 2010, 2011 and 2012, for the average county in each of the three regions. The blue plot with circles indicates the average level for the Atlantic coast region; the red line with triangles depicts the average level for the gulf coast region; and the green line with diamonds shows the average level for the panhandle region. I also indicate the rate of growth, year-on-year, immediately above each marker. So, for example, average real estate income fell in the panhandle region between 2009 and 2010 by .9%; average real estate income rose in the Atlantic coast region grew by 10.7% between 2010 and 2011. It is apparent that the Atlantic region grew more rapidly after 2010 than did the other two regions; in particular, real estate income for the

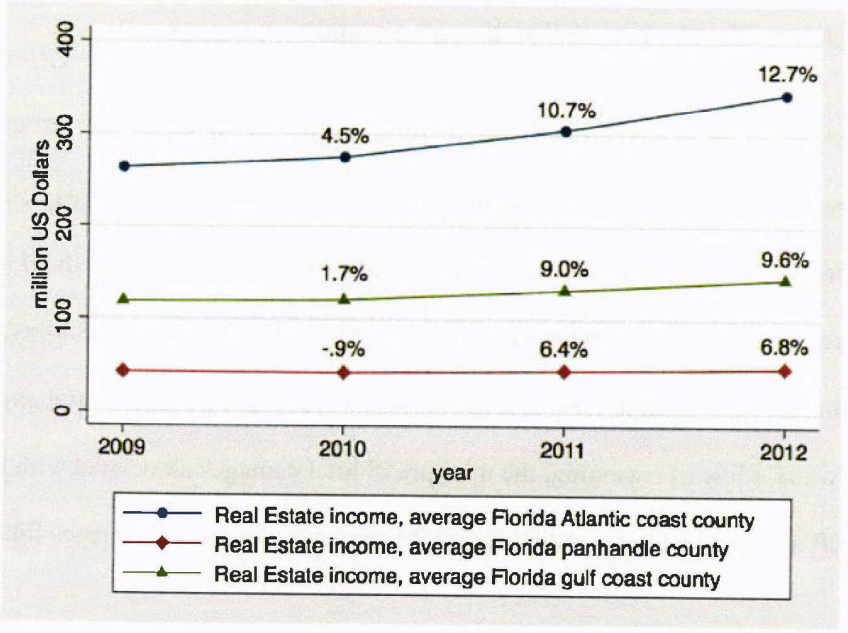
[45] Mason Round 2 Report at 15.

[46] US_PP_MAS012366, accessible at http://www.bea.gov/regional/docs/noaa.cfm. The BEA defines personal income as "Personal income is the sum of net earnings by place of residence, property income, and personal current transfer receipts. Property income is rental income of persons, personal dividend income, and personal interest income. Net earnings is earnings by place of work (the sum of wages and salaries, supplements to wages and salaries, and proprietors' income) less contributions for government social insurance, plus an adjustment to convert earnings by place of work to a place-of-residence basis." (See http://www.bea.gov/newsreleases/regional/spi/sqpi_newsrelease.htm). As such, it is a measure of the level of economic activity within a particular sector, here the Real estate and rental and leasing sector.

average Atlantic coast region grew significantly faster than for the typical panhandle county in every year. Based on this information, it is clear that the real estate and related markets in the Florida panhandle – as properly valued, via a comparison to the Atlantic coast market – continued to suffer after 2010. Similarly, damages to real estate and related markets in the Florida gulf coast region continued to suffer after 2010, though not quite as dramatically as in the panhandle. Just as in the case of hotel revenues, real estate income remained depressed due to the oil spill into 2011 and 2012, contrary to Scott's assertion that any industries harmed by the oil spill recovered quickly.

Figure 1

Changes in Florida Real Estate Income vs. 2009



Returning to the topic of claims payments indicating that the economic harm was severe, the evidence displayed in Table 1 and Figure 1 rebuts Scott's erroneous assertion that the adjustment factors applied in calculating claims amounts rendered the resultant claim payments an invalid measurement of damages.[47] As I explained in my report, these adjustment factors are designed to capture future damages. The continuing harm to the hospitality sector and real estate sector are but two examples that serve to demonstrate that Scott's assertion is false. There were ongoing damages, and hence the inclusion of an adjustment factor designed to reflect anticipated future damages does not render the use of claims payments as proxy for the level of economic harm invalid.

IV. My conclusion that economic harm due to the oil spill is severe includes any mitigating effect from the oil spill response and claims payments.

In part I.C of his Round 2 report, Scott argues mitigation of harm from BP's expenditures must be considered in assessing harm due to the spill.[48] While it is true that early claims payments and other BP payments may have mitigated harm, Scott's assertion that I ignore this effect is inaccurate. As Posner notes, a defendant confronted with potential liability, such as BPXP, has an incentive to undertake actions that reduce its exposure to potential payments.[49] Following Posner's line of reasoning, the measure of total damages associated with the spill is the sum of BP's prophylactic expenditures and the remaining expected damages following those

[47] Scott Round 2 Report, at 13-16.
[48] Scott Round 2 Report at 29.
[49] US_PP_MAS012387, at 402-404.

expenditures.[50] My focus was on determining whether damages were significant based upon the subset of damages observed following the expenditures, as measured by claims payments. While early BP payments did likely reduce ultimate damages, thereby lowering the total claims payments, these "avoided" damages are over and above the claims payments that we did observe. Accordingly, subtracting the BP payments from the estimated level of damages would be tantamount to double counting. Therefore, my conclusion that economic harm was severe already included this effect.

There is an additional issue, namely that other entities aside from BPXP contributed to the response effort, including both state and federal governments. A variety of state programs also contributed to the restoration efforts.[51] At the federal level, efforts included the economic recovery working group (consisting of the National Economic Council, the department of Commerce, the department of Agriculture, the department of Housing and Urban Development, the department of Energy, the department of Treasury, the department of Labor, and the department of Homeland Security, together with the Small Business Administration, the Office of Management and Budget, and the Council of Economic Advisors)[52] and the Economic Injury Disaster Loans (EIDL) program, which provided over $25 million in loans to impacted small businesses in Alabama, Florida, Louisiana and Mississippi by September, 2010.[53] These efforts also reduced D.

[50] *Id.*, at 452-453, equation A1.
[51] BP-HZN-2179MDL01871492, at 33-34.
[52] *Id.*, at 22. Within the first six months after the spill, over 20 economic recovery teams had been deployed to impacted Gulf communities. *Id.*, at 85.
[53] *Id.*, at 90.

V. My calculations of BPXP's production share are not flawed.

In part II.A of his Round 2 report, Scott claims my calculations of BPXP's share of Gulf production are flawed. He bases this argument on the allegation that I ignored BPXP's payment of royalties from its production levels, whereas the Bureau of Ocean Energy Management (BOEM) data that I rely on for industry production in the gulf does not net out royalties.[54] Royalties paid in the form of produced hydrocarbons would be considered to be "royalties in kind" as opposed to royalties paid in cash. BPXP provided documentation of royalties paid to the US Government.[55] These royalties consisted of both direct payments and payments in kind.[56] Mr. Morrison testified that there were no royalty in kind payments for 2013.[57] In fact, BP's

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[54] Scott Round 2 Report, at 33. Scott suggests BPXP's share should have been calculated by reducing industry production by an amount corresponding to the average royalty rate, which was 13.65%; doing so would have raised BPXP's share over the three year period 2011-2013 by less than 2.5 percentage points, from 15.36% to 17.79%.

[55] Exhibit 11970, ROYALTY AND TAX PAYMENT SCORECARD. Richard Morrison confirmed this in his deposition testimony:
"Q. (BY MS. KARIS) Let me ask a question again, see if we can clean this up. Are the royalties paid by BPXP to the Federal: Government for activities in the United States those that are reflected in 11970?
A: That's correct."
PPTRAN000869, 277:23-278:3.

[56] From Mr. Morrison's deposition:
"Q. And which -- which other line or do we also need to include the line below that, which is "ONRR/MMS Royalty – RIK Offshore" in order to get the full amount of royalties?
A. That's correct, you need to include that, too.
Q. What does "RIK" stand for?
A. Royalty in kind.
Q. And so by combining the lines "ONRR/MMS Royalty - Offshore" and "ONRR/MMS Royalty - RIK Offshore," we would include a royalties -- a total universe of offshore royalties paid to the Federal Government, and that would include all royalties paid by BPXP; is that correct?
A. That would -- that would cover the royalties, yes.
Id., at 100:2-19.

[57] "Q. Actually, that's just the ONRR/MMS, and then you said we needed to add one more line there, correct?
A. Yeah, the royal -- the RIK Offshore, but in 2013 that was zero."

royalties spreadsheet shows there were no royalty in kind payments for any of the three years I focus on in my report (2011, 2012 and 2013).[58] Accordingly, even if as Scott asserts BPXP's production data is reduced by the amount of royalties paid in kind, this would have no effect on the analysis in my initial report.

One could compare BOEM's data regarding BPXP's share of operator production to the BOEM industry levels. But operator production is not the same as a firm's production, because a firm can be the operator while holding less than 100% of a lease, or it can have a part of the lease but not be the operator. So using operator data does not provide information on a firm's fraction of production – only the share of industry production for which it managed the operation.[59] Therefore, it was more appropriate in my initial report to compare BP's own production data to industry levels than to compare industry levels to BOEM's data on production at BP-operated wells.

VI. BPXP's market share provides valuable context for understanding BPXP's role in the Gulf of Mexico economy.

In part II.B, Scott claims that my use of market share is an inappropriate metric for measuring BPXP's impact on the Gulf economy. He supports this claim with two arguments: first, that sheer size of a company is more informative, using a handful of examples of important firms with small market shares,[60] and second that local economic development agencies do not

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Id., at 275:2-6.

[58] Exhibit 11970, Row 6, columns I, J and K.

[59] Such an exercise can, however, paint a useful picture of trends in the industry. Mason Round 2 Report, at 29-30.

[60] Scott Round 2 Report, at 35.

pay attention to market share. Regarding the first point, Scott draws a specific comparison between Bank of America and BPXP, noting that Bank of America's market share in terms of deposits is "virtually the same as BPXP's share of production in the GOM."[61] Arguing that Bank of America's size makes its national impact all the more important ignores the plain fact that the services Bank of America provides can be equally well provided by other banks, and as such the impact derived from Bank of America's services could be reproduced by other banks. While the banking industry is important to the US economy, there are many firms that could provide these benefits. As in his original report, Scott errs here by failing to place matters in the proper context. To properly assess the impact of a firm, one needs to know how important that firm is *within its industry*.

Scott's second point, that market share is of limited importance because development agencies do not focus on that metric, is equally misguided. Were a development agency confronted with the opportunity to woo one of two companies within a particular industry, it would presumably be drawn to the larger of the two. But of course that comparison boils down to market share. The sheer size of a company does not reveal the role it plays in an industry, or in a region; any other company, or a group of companies, developing comparable combined resources to those held by the company in question would make similar expenditures, and so have a similar effect.[62]

In the field of economics that studies particular industries, "industrial organization," scholars have relied on market share for over 50 years as a measure of a firm's role in an area of interest to the analyst. Using market share allows the economist to understand patterns of

[61] *Id.* at 35.
[62] Mason Round 2 Report, at 26.

behavior, trends in competition, and measures of economic performance in the industry.[63] Ignoring the importance of market share as a metric of performance, focusing on the absolute level of BPXP's activities in the Gulf of Mexico oil and gas industry without placing these activities in the proper context, invites exaggeration of BPXP's significance. The proper approach is to compare the level of BPXP's activity to industry level activity, comparing apples to apples, as it were. This is the approach I take.

I am not alone in focusing on market share as an important metric of a firm's role in the Gulf. In his report for Anadarko, Dr. David Sunding also relies on market share as an important measure. He notes, for example, that "[t]he title shares of investors in a lease are usually allocated in proportion to their capital investments."[64] Thus, one measure of a firm's importance in capital expenditures within the Gulf is its share of leases.

Statistics from the American Petroleum Industry indicate that the impact of oil and gas industry activity in the five states bordering the Gulf of Mexico exceeds $425 billion.[65] Focusing on the absolute size of a company, and ignoring the enormity of the industry in which it operates, grossly misrepresents the company's importance. A better measure of a firm's importance to the Gulf economy would place that firm in the proper context, comparing that firm against its peers; as such, that measure is tied to the firm's market share.[66]

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[63] Hence the profession's reliance on measures of market concentration, which are tied to market share.

[64] Sunding Report, at 13. However, the conclusion regarding non-operator activity that Sunding draws from these leasehold ownership data is suspect, as demonstrated by Gardner Walkup in his Round 2 Report at 4-7.

[65] DEFEXP011443 (Alabama), DEFEXP011444 (Louisiana), DEFEXP011445 (Mississippi), DEFEXP011446 (Texas), US_PP_MAS012365 (Florida). Available at http://www.api.org/policy-and-issues/policy-items/jobs/energy-works.aspx

[66] One might view this as providing a relatively generous approach towards assessing BPXP's impact in the Gulf region. For while oil and gas is very important to the five states in the Gulf,

There is an additional advantage to the use of market shares. As I noted in my Round 2 report, to understand the fluidity of a market, the degree to which activities are fungible across different firms, one needs to know the level of concentration in the industry; to assess this level of concentration, economists rely on an empirical measure called the Herfindahl-Hirschman Index.[67] As I noted in my Round 2 report, the data reflect an unconcentrated and competitive market for leases,[68] production[69] and deepwater drilling activities.[70] There are substantial volumes of hydrocarbons in the Gulf, for which there are a steady ongoing stream of activities. There is strong competition for leases, and for production based on those acquired leases. The benefits to the Gulf economy from developing these leases do not depend on any single firm, but on the industry as a whole – these benefits will accrue regardless of which company is the purchaser of the lease and the operator of the equipment. Any company developing the resources that BPXP currently develops would be making similar expenditures and generating a similar positive impact on the Gulf economy.

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the industry contributes less than half of each of the five state's GDP – ranging from 3.1% of Florida's GDP to 35.5% for Louisiana's GDP. *Id.*

[67] Mason Round 2 Report, at 26-28. Dr. Sunding also relied on this "commonly used" index, see Sunding Report, at 13.

[68] *Id.*, at 28-29.

[69] *Id.*, at 30-31.

[70] *Id.*, at 46.

VII. Statement of Compensation

My fee is $350 per hour for expert analysis, $525 per hour for deposition testimony and $700 per hour for courtroom testimony.

Sources Considered

(In addition to the documents cited in my Round 1 and Round 2 and Round 3 reports and my Round 1 and Round 2 lists of documents considered)

Bates, Exhibit, TREX, or Other Description
ANA-MDL-000198541-ANA-MDL-000198544
BP-HZN-2179MDL08683396-BP-HZN-2179MDL08683397
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Deposition Exhibit 12332
Deposition Exhibit 12340
Deposition Exhibit 12341
Deposition Exhibit 12349
Deposition Exhibit 12352
Deposition Exhibit 12353
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Sources Considered

(In addition to the documents cited in my Round 1 and Round 2 and Round 3 reports and my Round 1 and Round 2 lists of documents considered)

Bates, Exhibit, TREX, or Other Description
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