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**Liability and Financial Responsibility  
for Oil Spills under the Oil Pollution  
Act of 1990 and Related Statutes**

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**“LIABILITY AND FINANCIAL RESPONSIBILITY FOR OIL SPILLS UNDER THE OIL  
POLLUTION ACT OF 1990 AND RELATED STATUTES”**

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**Testimony of Michael Greenstone  
before the House Transportation and Infrastructure Committee  
June 9, 2010**

Thank you Chairman Oberstar, Ranking Member Mica and members of the committee for inviting me here today.

My name is Michael Greenstone and I am the 3M Professor of Environmental Economics at the Massachusetts Institute of Technology, the Director of The Hamilton Project, and a Senior Fellow at the Brookings Institution. My research focuses on estimating the costs and benefits of environmental quality and the consequences of government regulation. I appreciate the opportunity to speak with you today about the economic incentives around drilling decisions that impact the chances of oil spills.

The Deepwater Horizon spill is the greatest spill our country has experienced, in terms of both environmental and economic impacts, and I fear that we have yet to understand its full impacts. A key purpose of my testimony is to use economic theory and evidence to take a critical look at existing legislation that regulates drilling, with an eye toward identifying regulatory changes that would allow our country to better meet its energy objectives.

## **I. INTRODUCTION**

As I see it, we have two objectives related to oil drilling. The first is to support energy security through increased energy production in the United States. In my view, energy security refers to the reliable and affordable supply of energy in a manner that does not constrain our policy objectives in other arenas, particularly our national security. As a recent Council of Foreign Relations report put it, countries that rely on imported energy have repeatedly seen that “their growing dependence (on imported energy) increases their strategic vulnerability and constrains their ability to pursue a broad range of foreign policy and national security objectives.”<sup>1</sup> Indeed, it has been an ongoing goal of policymakers to maximize our nation’s capacity for energy production so that the U.S. economy is not beholden to the decisions of foreign oil producers.

The second objective is to protect the environment by making sure that energy producers put the appropriate safeguards in place against oil spills and other environmental damages. The American people place tremendous value on clean air and water. After all, a clean environment is necessary for safe recreation at beaches, healthy habitats for wildlife, industries like tourism and fishing, and ultimately preserving the planet for future generations.

These two objectives are often in conflict with each other. Let’s look at the two extreme cases: On the one hand, removing all environmental controls would maximize domestic energy production. On the other hand, the one guaranteed way to protect the environment from oil spills would be to stop drilling entirely. Of course, neither of these extremes is practical nor desirable.

The American people depend on the government to find an appropriate middle ground, and to determine the appropriate level, type and location for drilling. An important part of these efforts can

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<sup>1</sup> Deutch, John and James Schlesinger, “National Security Consequences of U.S. Oil Dependency” (2006) Independent Task Force Report No. 58, Council on Foreign Relations, New York: New York

be achieved through sensible government regulation -- setting safety standards and conducting inspections. The challenge, however, is that the government is almost always at an information disadvantage relative to the oil companies. This is to be expected because the oil companies set up the rigs, know the local conditions, and generally invest many more worker hours on site analyzing the resulting data. Without access to full information, it is practically impossible for the government to know all of the decisions that are key for preventing spills. And, of course, it is vital that government regulators conduct independent inspections free of influence from the regulated companies.

In the face of this information disadvantage, it is crucial that drillers face the proper economic incentives to prevent spills. This requires that oil companies be held responsible for clean-up costs and economic damages. The assignment of full liability to oil companies means that market forces will guide oil companies investment decisions and cause them to consider the full costs of potential spills in making these decisions.

However, current law protects oil companies and actually provides economic incentives for spills, rather than preventing them. The 1990 Oil Pollution Act capped firms' liability for economic damages from oil spills at \$75 million, not adjusted for inflation and in addition to all removal costs.

My primary argument here today is that the removal, or substantial increase, of the liability cap on economic damages from oil spills is the most effective way to align oil companies' incentives with the American people's interests.

It is natural to ask whether the removal of the liability cap would compromise our energy security goals by reducing U.S. production. This question cannot be answered definitively without access to data from oil, shipping, and insurance companies that is not currently in the public domain. Nevertheless if the removal of a cap were to compromise energy security goals, it could be paired with economically sound policies that promote domestic production or reduce oil consumption without putting our environmental goals at risk. Such a pairing would allow us to achieve our energy security and environmental goals.

## **II. CONSEQUENCES OF THE EXISTING CAP ON LIABILITIES**

As I noted above, the \$75 million cap on liabilities for economic damages means that oil companies do not bear full responsibility for oil spills. This misalignment of incentives is a classic case of moral hazard. Firms and people behave differently when they are protected from the consequences of their actions.

Indeed, the cap creates incentives for spills.

To illustrate this point, consider oil companies' motivations. Market forces require them to focus on advancing the interests of their shareholders. The result is that oil companies make decisions about where to drill, and which safety equipment to use, based on benefit-cost analyses of the impact on their bottom line. If the expected costs outweigh the expected benefits, most private sector firms will decide against moving forward. However, if the expected benefits exceed the expected costs, the decision to move forward will appear sound.

In the case of drilling, the benefits are the expected value of the oil. The costs include equipment used and wages paid to employees. But, the costs also include the expected payouts for potential spill damages to shorelines, local economies and the environment.

So, the cap inevitably distorts the way companies make these decisions. Locations where damages from a spill may be costly – for example, places near coasts or in sensitive environmental areas – seem more attractive for drilling with the cap than if firms actually were responsible for all damages. Further, investments in safety equipment, like blow-out preventers, or the use of safe, but time-consuming methods, are less likely to appear beneficial with the liability cap.

The result is that the cap effectively subsidizes drilling and substandard safety investments in the very locations where the damages from spills would be the greatest.

In the case of the Deepwater Horizon venture, the rules of the game were such that the British Petroleum Company and its partners were able to make the decision to drill and decisions about safety equipment with the legal guarantee of a \$75 million cap on economic damages from spills. By some estimates, the economic damages will actually be more than 100 times the cap.

We cannot know whether the result would have been different without the cap, but what is clear is that there were economic incentives for companies to cut corners. Those incentives will remain as long as the cap is set at such a low level relative to the potential risk.

### **III. OBJECTIONS TO LIFTING THE CAP**

There are many interests who will oppose raising the liability cap and they will make forceful arguments for their side. Here, I evaluate several of these arguments from an economic perspective.

#### **1. *Would lifting the cap lead to higher oil prices?***

We are bound to hear that lifting the liability cap will mean higher prices for businesses and consumers. The answer to this charge is simple: In the massive global market for petroleum, lifting the cap will only have a small, likely imperceptible, impact on gasoline prices.

A few statistics help to make this clear. The Gulf of Mexico accounts for only 2.3% of global oil production. Additionally, the Gulf of Mexico accounts for just 0.3% of proven reserves worldwide<sup>2</sup>; the entire U.S. only accounts for 1.4% of worldwide proven reserves<sup>3</sup>. So even if raising the liability cap reduces use of some of these reserves, the world oil price will not be affected materially.

Indeed in different contexts, the big oil companies have made it clear that changes in their production are unlikely to have a meaningful impact on world oil prices. As Robert Malone, then chairman and president of BP America Inc. said in 2008, "We cannot change the world market."<sup>4</sup> Further, according to

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<sup>2</sup> Energy Information Agency, "Petroleum Supply Monthly, Table 26" (May 2010) and "International Petroleum Monthly, Table 1.1d" (April 2010). Data for January 2010.

<sup>3</sup>Energy Information Agency, "U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Proved Reserves, Table 4" (2008) and Oil and Gas Journal. Data for 2008.

<sup>4</sup>CNN Money. "Don't blame us for prices - oil execs" (May 21, 2008).  
[http://money.cnn.com/2008/05/21/news/economy/oil\\_hearing/index.htm?cnn=yes](http://money.cnn.com/2008/05/21/news/economy/oil_hearing/index.htm?cnn=yes).

the American Petroleum Institute, “No one company or group of companies has control over that price. In terms of market power, large international oil companies own less than 10 percent of the world's oil resources.<sup>5</sup>” Given the relatively small quantity of oil that comes from the Gulf and the number of players in the market, lifting the cap seems very unlikely to affect the global oil price.

## **2. *Will lifting the cap result in job loss?***

There is no doubt that lifting the cap will raise the costs for drilling in some locations. This could reduce the overall level of production and that would cause some job losses. However, it is important to underscore that these job losses would be limited to employment at sites where the expected damages from spills are substantial. These are the risky sites that are only viable economically due to the subsidy from the liability cap.

I would be remiss if I failed to point out that oil spills can have negative employment consequences. For example, the Deepwater Horizon spill is causing significant economic damages in the Gulf by limiting activity in multiple industries, including fishing and tourism. The rate at which these jobs will return depends on the how quickly the Gulf recovers (which is a question of scientific debate).

Finally, it is relevant to consider the impact of the spill on government budgets and the resulting impact on employment. Due to the spill, federal, state and local governments are on the hook for unemployment insurance payments, food stamps, and other payments. This spending likely crowds out other government activities that could increase job creation.

## **3. *Would lifting the cap unfairly punish smaller drillers, rig operators, and other oil service companies?***

Many observers have expressed concerns that removing the cap on liabilities will disproportionately hurt small or independent drillers or oil service companies. This need not be the case. The lifting of the cap would increase costs for companies that currently fail to take adequate safety precautions, regardless of their size. One of the appeals of lifting the cap as a form of regulation is that it does not pick winners and losers -- rather, it lets the market sort out the safer operators from the less safe ones.

## **4. *Would lifting the cap on damages from spills from the transportation of oil unfairly harm shipping companies?***

The argument for raising the cap on spills from shipping companies is identical to the one for drillers. Lifting the cap would cause shipping companies to bear the full risks associated with their operations and cause them to take proper safety precautions.

## **5. *Does the Deepwater spill make lifting the cap unnecessary?***

Some have argued that the publicity around the Deepwater Spill will cause oil companies to take all available precautions. I would not be surprised if oil companies are currently implementing new

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<sup>5</sup> American Petroleum Institute. “API Statement to Senate Judiciary on the State of the Oil & Natural Gas Industry and Market Conditions” (February 2, 2006). <http://api-ep.api.org/Newsroom/testimony/senate-judiciary.cfm>.

safeguards against spills. However, memories about the current tragedy will undoubtedly fade as time goes by. The advantage of lifting the cap is that it will provide a permanent incentive to prevent spills.

#### **IV. IMPORTANT CONSIDERATIONS FOR IMPLEMENTATION**

If the cap on liabilities is raised or removed, there are a number of important issues to consider. I discuss a few of them here.

**1. *Should a higher cap apply only in deepwater or in shallow water as well? What about for productive versus exploratory wells?***

From an economic perspective, there is no difference in the appropriate response based on where the well is located or its purpose. In all cases, a cap on liability for damages creates a moral hazard problem that provides incentives for spills. The lifting of the cap is the best solution to this problem.

**2. *If the cap is raised, what can be done to prevent companies from avoiding the higher liabilities?***

There are a series of corporate reorganizations that firms could take to evade a higher cap. This might include dividing themselves into smaller entities and making liberal use of bankruptcy statutes in the case of a spill or the formation of limited partnerships. To prevent such practices, any increase in the cap should be accompanied by a requirement for proof of liability insurance, a certificate of financial responsibility, or the posting of a bond to cover damages.

**3. *Should a higher cap be applied prospectively and/or retrospectively?***

For all the reasons listed above, the economic case for raising the cap prospectively is a strong one.

The case for applying a higher cap to existing drilling operations is a more difficult question. On the affirmative side, it seems evident that the potential damages from oil spills are larger than had been previously understood. In light of this new information, it might seem appropriate to effectively alter the regulations that operators face. After all these operators are making decisions every day that affect the probability of a spill and these decisions should reflect the new information about the potential damages from spills. A part of this affirmative argument is that when firms make investment decisions, they understand that there is always some chance that the regulatory environment will change in a way that affects their bottom line. This is especially so with regards to environmental regulation where understanding of the risks are evolving.

On the negative side, a country that frequently changes its regulatory environment and creates uncertainty in the marketplace could weaken the incentives for investment economy-wide. In the worst case, the alteration of the liability cap could dampen investment throughout the economy.

Economics does not provide an easy answer here because we cannot know in advance which effect is bigger. One possibility that has some intuitive appeal would be a transitional strategy -- to raise the liability cap on existing operations slowly over the course of several years.



#### **4. Will a higher liability cap compromise our energy security goals?**

It is possible that lifting the cap will reduce the domestic production of oil and reduce our energy security. If this is the case, it could be paired with economically sound policies that promote domestic production or reduce oil consumption without putting our environmental goals at risk. Such a pairing would allow us to achieve our energy security and environmental goals.

#### **V. CONCLUSIONS**

To summarize, I have tried to provide an economic analysis of how to reduce future oil spills. There are four main conclusions:

- 1) The Oil Pollution Act of 1990 distorts market forces and provides economic incentives for oil spills by limiting the liability for economic damages to \$75 million.
- 2) The lifting, or substantial raising, of the liability cap is the most effective way to align oil companies' incentives with the interests of the American people.
- 3) Any increase in the cap should be accompanied by a requirement that oil companies provide proof of the necessary insurance or certificates of financial responsibility.
- 4) To continue to promote energy security while raising or eliminating the cap, the government may also want to consider complementary policies to boost domestic production or lower domestic consumption of oil.

I would like to thank the entire committee once again for inviting me to participate in this discussion. I will gladly respond to any questions.