



JOINT ECONOMIC COMMITTEE

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ECONOMIC POLICY BRIEF

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BILLIONS IN OFFSHORE ROYALTY RELIEF FOR OIL AND GAS COMPANIES BUYS LITTLE FOR TAXPAYERS

The federal government's ill-conceived royalty relief program for offshore oil and gas drilling could cost taxpayers up to \$80 billion—with precious little to show for it. There is scant evidence that royalty relief materially affects the domestic supply of oil and natural gas or our dependence on foreign energy sources. Moreover, money spent on tax incentives for oil and gas companies to encourage deepwater drilling is very likely to have a greater impact on energy security if used to encourage conservation or the development of renewable energy alternatives. As an economic policy, royalty relief appears to have no net effect on jobs at the national level or any effect on energy prices paid by consumers.

Royalty Relief Could Cost up to \$80 Billion in Lost Revenue

The federal government manages the energy resources on federal lands, including underwater sites on the Outer Continental Shelf (OCS), and leases production rights to private companies. For OCS oil and gas, companies bid to acquire the rights to produce from federal leases and the government collects royalties (a percentage of the revenue) once production begins. Royalty relief was enacted in 1995 with the promise to taxpayers that it would provide incentives to producers that would lead them to increase domestic production. However, oil and gas companies have successfully exploited inconsistencies in the law and stand to receive tens of billions of dollars of unintended royalty giveaways.

The royalty relief program was supposed to include price thresholds that would limit the cost of the program, but as

detailed in the **Appendix**, the cost of lost leasing royalties could be much higher than expected for the following three reasons:

- A successful legal challenge to the way the Department of the Interior defined the volume of oil subject to royalty relief adds an estimated \$10 billion in costs.
- An apparent administrative oversight that failed to include price thresholds on royalty relief for leases issued in 1998 and 1999 adds an estimated \$10 billion more.
- A lawsuit challenging the authority to apply price thresholds to any leases issued between 1996 and 2000, if successful, would add an estimated \$60 billion more.

The economic case for any royalty relief is weak. With these additional costs, the program would have to deliver huge benefits to satisfy any reasonable cost-benefit test.

Economic Benefits From Royalty Relief Are Hard to Find

It is difficult to find evidence of economic benefits from the royalty relief program. The justification for this and other special subsidies for oil and gas companies usually rests on the arguments that increasing domestic oil and gas production will lessen our dependence on foreign sources of supply, promote employment and economic growth, and hold down energy prices for consumers. Yet, as discussed below, it does not appear that royalty relief is a cost effective way of achieving any of these ends.

Royalty relief is one part of a package of government subsidies for oil and gas companies. In addition to royalty relief, these subsidies include special tax provisions for exploration and production of oil and gas, and direct spending on research and development for oil and gas production technology. Oil and gas companies also benefit from general tax subsidies such as the manufacturing tax deduction and favorable inventory accounting rules that apply to other industries as well. It is questionable whether these targeted subsidies are an important incentive to new production, especially at a time when oil and gas companies are recording record profits.

Royalty Relief Does Little to Increase Domestic Supply

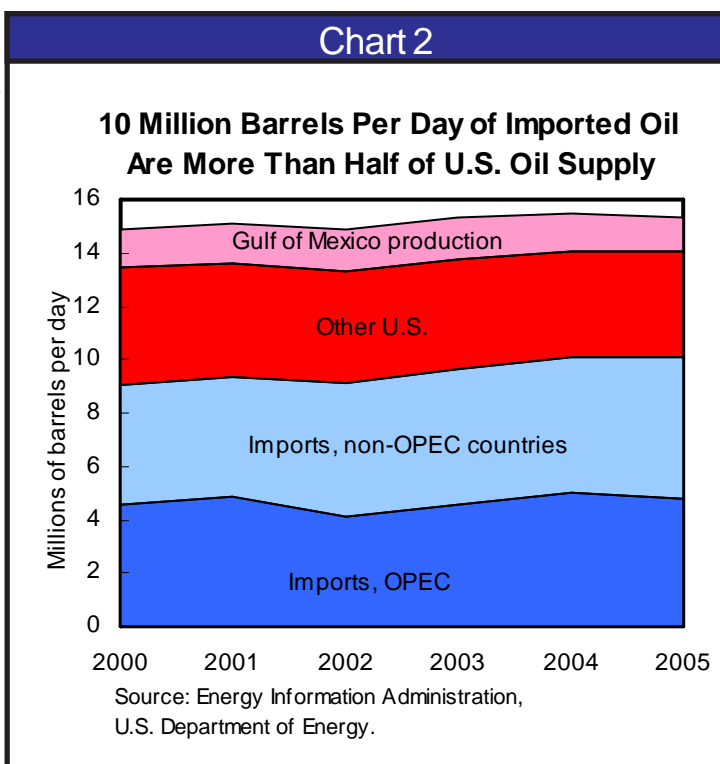
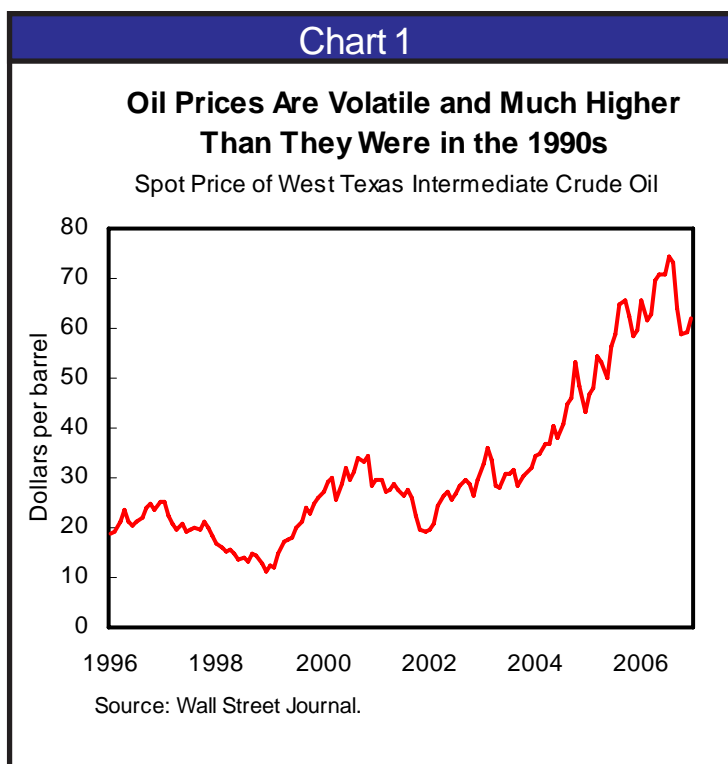
According to the General Accounting Office, the Minerals Management Service of the Department of the Interior (MMS) has not conducted a cost/benefit analysis of the impact of deepwater royalty relief. An MMS-commissioned study did look at the effects of the royalty relief incentives on leasing, bidding, and competition, but did not look at actual exploration and production. The study, however, did simulate the effects of royalty relief on production and revenues going forward from 2003 under various assumptions about the continuation of the royalty relief program. The

study found that compared with the base case of no royalty relief, royalty relief similar to that enacted in the Deepwater Royalty Relief Act of 1995 (DWRRA) would be expected to increase new production by only 2.8 percent over the next forty years while reducing the present value of royalty revenue by about 32 percent.¹

The study also noted that changes in the assumptions about the expected price of oil and natural gas had a much greater influence on future exploration and production than royalty relief. It is not surprising that royalty relief would have a much smaller impact. Oil prices are subject to considerable volatility and at their peak in 2006 were almost four times their 1999 level (Chart 1). Price changes dwarf the dollar value of the subsidy from royalty relief.

Royalty Relief Is the Wrong Policy for Achieving Energy Security

U.S. dependence on foreign oil stems from the 10 million barrel per day gap between domestic demand for oil and the supply forthcoming from domestic sources of production (Chart 2). Production from the Gulf of Mexico accounts for a little less than 10 percent of total U.S. oil supply (domestic production plus imports). The United States



imports about 65 percent of its total supply, with about half of that coming from OPEC countries.

Dependence on foreign sources of oil is particularly problematic when those sources are dominated by countries in unstable parts of the world such as the Middle East and governments unfriendly to the United States such as Venezuela. Thus, the key to energy security is to reduce the gap between U.S. oil consumption and U.S. oil production in order to reduce our dependence on foreign sources of supply.

From the standpoint of energy security, it is immaterial whether we reduce our dependence on insecure sources of oil by reducing our overall demand or by increasing our domestic supply. The key to judging the effectiveness of a particular energy security policy is whether we are getting the best “bang-for-the-buck” in terms of reducing our dependence on insecure sources of supply. If some or all of the money being spent on one policy could achieve a larger reduction if it were diverted to a different policy, we could achieve better energy security for the same amount of money.

A broader criterion for an optimal energy security policy is whether the benefits of devoting additional resources to energy security would justify the additional costs, both economic and environmental. Based on the available evidence, royalty relief for oil and gas production fails both the cost-effectiveness (“bang-for-the-buck”) criterion and this broader “optimality” criterion. The subsidy currently going to royalty relief would almost surely be better spent on more cost-effective, demand-side strategies to conserve on energy use or the development of alternative fuels to substitute for oil. Scaling back or eliminating government subsidies would appear to sacrifice little in terms of energy security relative to the cost of the subsidies.

A preliminary study by the RAND Corporation finds, for example, that the current pace of renewable energy development could reduce projected oil consumption by 10 percent by 2025. The study says that raising the use of renewables to 25 percent of all U.S. energy consumed would reduce U.S. reliance on oil by double that or roughly the equivalent of imports from Saudi Arabia and Venezuela. Such prospects illustrate the potential for public policies that encourage such demand-side solutions.²

Royalty Relief Has No Effect on Jobs and Prices

Oil and gas royalty relief, like other subsidies to encourage domestic energy production, are sometimes alleged to have benefits in terms of job creation or keeping energy prices more affordable for consumers. In general, however, production subsidies aimed at a particular industry or sector are unlikely to increase jobs at the national level, and small increases in domestic oil production will not affect prices. Increases in domestic production can increase the demand for workers in the oil and gas industry. However, the industry is relatively capital-intensive, and the small increases in production likely to stem from royalty relief are not likely to have a large employment effect. The number of workers employed in oil and natural gas extraction was just over 143,000 at the end of last year, compared with a total of over 114 million jobs in the non-farm private sector. More important, over time and at the national level, jobs created in the oil and gas industry are more likely to represent jobs diverted from other industries than they are net new job creation.

With respect to prices, oil prices are set in a world oil market. Relatively small increases in domestic supply are unlikely to move world oil prices at all. That is not to say, however, that a meaningful reduction in U.S. dependence on foreign oil achieved through a well-conceived energy security policy that includes significant conservation and alternative fuel development cannot have a large enough impact to affect prices.

Conclusion

The federal government has not performed a systematic analysis of the costs and benefits of the oil and gas royalty relief program. It seems clear, however, that the program would fail such an analysis. The economics of the program were questionable when it was instituted and oil prices were low. In today’s economy, there is no reasonable economic justification for continuing the program.

Royalty relief has not led to meaningful increases in the domestic supply of energy, nor has it led to the creation of new jobs or the lowering of energy prices. What royalty relief has done is cost taxpayers tens of billions of dollars without reducing our dependence on insecure sources of foreign oil. Our failed experiment with royalty relief invites further

examination of the effectiveness of the dozens of other tax incentives designed to increase oil and gas production in the current tax code. To the extent that demand-side policies such as conservation and the development of alternative fuels are likely to be more effective at increasing our energy security, shifting energy tax incentives into those policies would give taxpayers more energy security “bang” for their tax “bucks.”

Endnotes

¹ Ashton, P.K., L.O Upton II, and Michael H. Rothkopf, 2005. *Effects of Royalty Incentives for Gulf of Mexico Oil and Gas Leases*. Volume I: Summary, U.S. Department of the Interior, Minerals Management Service, Economics Division, Herndon, VA. OCS Study MMS 2004-077, Table 5-10, page 56. Results are for the \$46/bbl price scenario.

² Rand has temporarily pulled the report from its website to make technical corrections to the models used. The estimates reported in the text are based on news reports at the time the study was first released. See 25x'25, “25 Percent Renewables by 2025 Is Achievable and Affordable,”

<http://www.25x25.org/storage/25x25/documents/RANDandUT/RANDFactSheet.pdf>,

and Fialka, John J., “Renewable Fuels May Provide 25% of U.S. Energy by 2025,” Wall Street Journal, November 13, 2006; page A10,

http://online.wsj.com/public/article/SB116337967603521181-XoaCh_oy6v0JyhW2wd4yQ31pahQ_20061213.html?mod=tf_main_tff_top.

Appendix

Oil and Gas Royalty Relief: A Flawed Program

The federal government collects royalties from the sale of oil and gas produced by private companies on federal lands, including production from underwater sites on the Outer Continental Shelf. The rights to explore and drill for oil and natural gas are leased to private companies through a competitive bidding process. In addition to the bonus bid paid to acquire the lease, companies awarded a lease pay rent until production begins, after which they pay royalties to the government equal to a fixed percentage of the value of the oil and gas produced.¹

Under provisions of the Deepwater Royalty Relief Act of 1995 (DWRRA) royalties were suspended for leases awarded in 1996-2000 for exploration and production in the Gulf of Mexico on deepwater sites. Royalty relief applies to a specified volume of oil or natural gas produced from each site (with the royalty-free volume depending on the depth of the water). Regular royalty rates apply once production exceeds the specified royalty-free volume.

First, in a challenge that was upheld by the courts, lessees argued that the Department of the Interior (DOI) erred when defining the royalty volume on a field basis rather than for each lease site. The court upheld that challenge, which meant that the royalty-free volumes were much greater than what DOI had intended, resulting in an additional cost of \$10 billion.

Second, the DWRRA provides for suspension of royalty relief if oil and gas prices exceed certain thresholds. Two issues, however, complicate the application of price thresholds. First, through an apparent oversight, price thresholds were not included in the leases issued in 1998 and 1999. Companies will not have to pay royalties on oil and gas production from those sites (up to the specified royalty-free volumes) no matter how high oil and gas prices rise.² The Mineral Management Service (MMS), which administers the royalty relief program, estimates that the lack of price thresholds for leases granted in 1998 and 1999 will cost the government up to \$10 billion.³

Finally, the Kerr-McGee Oil and Gas Corporation has challenged in court the authority of the Department of the Interior to impose price thresholds on royalty relief for any leases issued between 1996 and 2000. If the courts rule in favor of Kerr-McGee on this issue, MMS estimates that the government could lose an additional \$60 billion.⁴

Royalty relief continued for leases awarded after the DWRRA expired in 2000, but under a much-reduced program. Relief was eliminated for production in shallower depths (200-400 meters), and specified royalty-free volumes were lowered. All new leases provided for suspension of royalty relief when prices exceed certain thresholds. The Energy Policy Act of 2005 extends the offshore royalty relief program and expands it to include deep gas drilling in shallow waters.

¹ The Interior Department recently announced plans to increase the royalty rate for deepwater drilling from 12.5 percent to 16.7 percent of the value of oil and gas production. See: U.S. Department of the Interior, Minerals Management Service, Office of Public Affairs, New Release, January 9, 2007.

² Five companies holding about 17 percent of leases issued in 1998-1999 have voluntarily renegotiated those leases and agreed to pay royalties. See: U.S. Department of the Interior, Minerals management Service, Release #3587, December 14, 2006, and New York Times, *Criminal Inquiries Look at U.S. Oil-Gas Unit*, December 15, 2006.

³ General Accounting Office Briefing on Oil and Gas Royalties, Draft, March 27, 2006.

⁴ Ibid.