Budget Impasse Hinges on Confusion among Deficit Reduction, Tax Increase, and Tax Reform:
An Economic Analysis of Dual Capacity and Section 199 Proposals for the U.S. Oil and Gas Industry

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As the deadline for approving an increase in the Federal debt ceiling approaches, the tax treatment of oil and gas companies’ revenues has become enmeshed in the policy debate over debt reduction and tax reform. That debate, however, is presently confusing three concepts: deficit reduction, tax reform, and tax increases. While sometimes related, those three concepts are not guaranteed to be equivalent. It is crucially important, therefore, that policymakers maintain the distinction between the three in the highly charged budget debates in order to enact meaningful deficit reduction policies.

The stated goal of all participants in the budget debates has been deficit reduction. Reduced deficits are crucial to eventually reducing the debt burden to a sustainable level. The simplest deficit reductions can be attained by decreasing spending or increasing government revenues. But there are other policy options to alter regulatory and public goods policies in ways that promote economic growth without raising tax rates. That is important because even increased tax rates, in and of themselves, do not guarantee increased tax revenues. One need only look at the famous Laffer curve hypothesis, combined with the type of economic theory and empirical tests carried out by Gary Becker (of the University of Chicago) and subsequent work to see the logic that taxpayers rationally choose to pay the lower of the costs of tax avoidance or tax liabilities. Indeed, the problems currently unwinding in Greece and other European countries are to a large extent caused by tax avoidance behavior in an environment of very high marginal income taxes. Hence, it should not be taken as a foregone conclusion that increased tax rates result in increased tax revenues. Moreover, when increased tax rates actually do increase tax revenues, they create a drag on economic growth. Hence, it is not clear that tax rate increases are sensible in the current economic situation.

Tax reform, while laudable, similarly need not necessarily result in deficit reduction. Tax reform is sometimes motivated by tax simplification, other times by interests in reducing inequities in the tax code, and yet other times by the desire to advance social agendas. Similar to tax rate increases, only to the extent to which tax reform could lead to greater tax revenues do the two concepts align to advance the overall goal of deficit reduction.

The present paper is meant to enlighten policymakers’ approach to some recent popular tax proposals using relationships between deficit reduction and tax policy described above. Throughout the recent budget debate, President Obama has consistently proposed increasing the effective tax rates paid by the oil and gas industry as a necessary condition for achieving a compromise. Part of President Obama’s proposal for increasing the oil and gas industry’s tax-burden is the elimination of the Section 199 tax deduction for oil and gas companies and adding substantial additional restrictions to the foreign tax credit rules by changing the so-called “Dual Capacity” taxpayer rules.

That policy has been motivated variously as a social agenda tax reform and as a deficit reduction measure. The important question to sort out, however, is whether it can be both. Putting aside for the moment whether greater restrictions on the U.S. oil and gas industry are desirable, the question becomes one of whether such policy can be expected to generate greater tax revenues that can contribute, even slightly, toward deficit reduction. If so, the policy could qualify as a deficit policy candidate. If not, however, the proposal should be dismissed.⁵
The remainder of this report compares estimates of the changes in economic activity—including economic activity, jobs, wages, and tax revenues—that could reasonably be expected to result from repealing Section 199 and changing Dual Capacity to estimates of the revenue expected to be raised as a result of these tax rate increases. The proposed revisions to Section 199 and Dual Capacity for the oil and gas industry are expected by the Treasury to raise approximately $30 billion in Federal tax revenue over the next ten years. But this comes at the expense of industry cutbacks that can reasonably be expected to cost the economy some $341 billion in economic output, 155,000 jobs, $68 billion in wages, and $83.5 billion in reduced tax revenues. The net fiscal effect, a loss of $53.5 billion in tax revenues, suggests that the policy proposals exacerbate, rather than alleviate, the Federal deficit.

Deficit reduction policies, however, are not limited to changes in the tax code. Expansionary policies take all shapes and forms, including but not limited to sensible regulatory policies and expansionary public goods policies that can attract businesses and increase economic activity. Policies that promote economic growth without government expenditures are a “free lunch” as far as the budget debate is concerned. Indeed, it is well established that countries that use periods of fiscal pressure to reform the business environment experience faster economic recoveries than those that do not.3

A simple example of the possibilities of such policies is the estimated economic benefits that would arise from the expansion of oil and gas exploration and production on the Outer Continental Shelf (“OCS”). I show that encouraging exploration and production in the OCS represents a highly effective means of increasing Federal tax revenues generated by the oil and gas industry while simultaneously stimulating the economy, potentially contributing $73 billion annually in economic activity, $16 billion annually in wages, $11 billion annually in Federal tax revenue, $5 billion annually in state and local tax revenue, and 250,000 jobs in the short run exploration phases of development. Those effects can be expected to be followed by another $275 billion annually in economic activity, $70 billion annually in wages, $55 billion annually in Federal tax revenue, another $14 billion annually in Federal royalty payments, $19 billion annually in state and local tax revenue, and 1.2 million jobs in the long-run production phases of development. Moreover, those effects are most likely conservative since they do not include Federal lease payments, which could reasonably be expected to be at an all-time high in the present environment of high crude oil prices. Of course, tax reform could still be worthwhile. In fact, tax reform that alleviates the need for complex dual capacity adjustments could potentially be valuable for the industry while increasing tax revenues. For instance, recently proposed territorial tax schemes could have the potential to increase reported U.S. profits of U.S. oil and gas firms in a way that could contribute substantially to deficit reduction goals in Congress. But as long as policymakers in Washington continue to needlessly confuse social policy as deficit reduction, economically valuable reforms will most likely remain elusive.4

3. See, for instance, the annual results of the World Bank’s “Doing Business” report as well as wider studies of national competitiveness, such as those by the OECD and the World Economic Forum and related economic research. All acknowledge “…making it easier and cheaper to start businesses does indeed reduce the informal sector, create jobs, improve productivity and reduce corruption.” (“Snipping off the shackles,” Economist Magazine, Nov 4, 2010.)

4. In my opinion the Obama administration is straightforward about such social policies. The fossil fuel provisions arise from the President’s agreement “at the G-20 Summit in Pittsburgh to phase out subsidies for fossil fuels” and are listed in a separate section of the budget entitled “Eliminate fossil-fuel preferences,” as opposed to other sections devoted to “Simplify the tax code,” “Other revenue changes and loophole closers,” or “Reduce the tax gap and make reforms.” Hence, there is no obvious reason to confuse notions of tax reform or deficit reduction with energy policy, and those debates should be kept separate and distinct. (General Explanations of the Administration’s Fiscal Year 2012 Revenue Proposals, Department of the Treasury February 2011, available at http://www.treasury.gov/resource-center/tax-policy/Pages/Greenbook.aspx.)
I. Policy Assessment of the Proposal to Repeal Section 199 and the Dual Capacity Tax Credit

A. Summary of Section 199 and Dual Capacity Tax Provisions

A key part of the Obama administration’s 2011 budget proposal consists of increased taxes on the oil and gas sector. In particular, the measures do away with two key tax provisions. It is important to note, however, that those tax provisions are not subsidies specific to the oil and gas industry, but rather tax credits available to most every American company. I suggest below that the proposed changes, which would apply solely to oil and gas companies, have little to do with deficit reduction and more to do with dogmatic approaches to offshore drilling safety and energy policies. Hence, the changes appear to be merely punitive policies that are now finding a place in the sun in the post-Gulf drilling crisis political environment.

The administration wants to eliminate essential tax provisions that all taxpayers are entitled to under Section 199 of the American Jobs Creation Act (“Section 199”) and Section 901 of the Internal Revenue Code and Section 1.901-2 of the U.S. Treasury Regulations (regarding “Dual Capacity” taxpayers). In doing so, it would override rules “adopted in 1983 after almost a decade of legislative and administrative debate,” as well as legislation put in place by President Bush in 2004 that help U.S. industries engaged in producing and manufacturing within the United States.5

Section 199 of the Internal Revenue Code was created under the American Jobs Creation Act to “provide a permanent benefit … to taxpayers in a wide variety of industries.” It allows taxpayers that produce or manufacture in the United States to deduct from their taxable income a certain percentage of such domestic production activity each year. In 2005, the Congressional Budget Office estimated that the provision “effectively reduced the United States’ highest federal statutory corporate tax rate for income from domestic production from 35 percent to 31.85 percent.”7 The adjusted rate for U.S. corporations brings the American rate closer to (though still not as low as) the average rate for nations of the Organization of Economic Cooperation and Development, helping U.S. corporations doing business domestically compete against lower-taxed foreign competitors.8

Unlike Section 199, which effectively lowers the tax rate on domestic production activities in the U.S., the foreign tax credit rules, including the Treasury’s Dual Capacity provisions, are meant to avoid double-taxing U.S. firms’ income from abroad, encouraging tax fairness for U.S. multinational firms.9 All U.S. firms are entitled to a credit against their U.S. tax liability on foreign earned income for foreign income taxes already paid on that income. Specific, more restrictive rules apply to certain

taxpayers, called Dual Capacity taxpayers, including oil and gas companies. Under Dual Capacity, a U.S. oil and gas company that does foreign business may only “credit the portion of [a foreign tax] levy in the amount of what the generally imposed [foreign] income tax would be,” unless it can show some higher amount is in fact an income tax, and no portion of that higher amount is a royalty or disguised royalty (or, in the words of the regulations, a payment for a “specific economic benefit”). If a taxpayer can meet this extraordinary burden of proof, then it is entitled to treat such additional amount paid as income taxes eligible as offsets against potential U.S. income tax on such foreign income. This provision is crucial for many U.S. energy firms competing with foreign state-run corporations from such countries as Russia, Venezuela, and China, or with companies based in countries outside the U.S., such as those headquartered in France, the U.K., the Netherlands, etc., which generally do not impose home country income tax on income earned outside of their borders (generally territorial taxation systems). Without the foreign tax credit, U.S. oil and gas firms would be double-taxed on revenues from their foreign operations in other countries.

1. **Section 199 Tax Deduction**

In 2004, under the American Jobs Creation Act, the Congress enacted a new tax deduction for U.S. businesses under Section 199 of the Tax Code. The legislation grants taxpayers the right “to receive a deduction based on qualified production activities income resulting from domestic production.” According to the stipulations of the law, qualified production activities include goods “manufactured, produced, grown, or extracted ... in whole or in significant part within the United States.” The definition clearly covers oil and gas produced in the United States.

The deduction went into effect for taxable years beginning after December 31, 2004 and was phased in over several years. In 2005 taxpayers qualifying for the deduction received a three percent deduction. According to the U.S. Department of the Treasury, in 2005 the deduction would be applied as “three percent of the lesser of: (a) taxable income derived from a qualified production activity; or (b) taxable income, for the taxable year.” The calculation for a taxable year is capped at 50 percent a taxpayer’s W-2 wages over the calendar year. The total amount of the deduction is computed by subtracting the percentage of the taxpayer’s income that was earned as a result of qualified domestic activities from the total taxable income. The percentage of qualified income subject to the deduction has increased to six percent in 2007, and to nine percent of qualified income beginning in 2010.


16. Id.


18. Id.
In August of 2008, a group of ten senators, dubbed the “Gang of 10” proposed the exclusion of energy firms from Section 199 as part of the New Energy Reform Act of 2008 (“ERA”). By excluding energy firms from Section 199, the senators hoped to raise tax revenues that could be redistributed to favored projects. In the Emergency Economic Stabilization Act of 2008, the Section 199 deduction amount was frozen at six percent of qualified income for oil and gas companies. The Obama administration’s fiscal proposal would exclude oil and gas companies entirely from Section 199.

Critics of the exclusion demonstrated early on that the change to Section 199 would bring about harmful changes in employment, earnings and economic output throughout the U.S. economy. A 2008 report by the Congressional Research Service reached the same conclusion. While the CRS analysis suggested that there will be little effect in the short run, “all taxes distort resource allocation, and even a corporate profit tax ... would reduce the rate of return and reduce the flow of capital into the industry,” in the long run. Rates of return to investment in oil and gas “would decline, causing a decline in capital flows to this industry, and an increase in capital flowing to other industries, including foreign industries.”

Recent Office of Management and Budget estimates show that excluding the oil and gas industry from Section 199 would increase the Federal government's revenues by $18.3 billion over the next ten years while most likely having an adverse effect on the U.S. energy sector, including industries that support the production and transportation of oil and gas.

Such deleterious effects can reasonably be expected because although the administration claims that “the [previously] lower rate of tax … distorts markets by encouraging more investment in the oil and gas industry than would occur under a neutral system,” the move disadvantages oil and gas firms relative to other firms—meaning all of U.S. manufacturing outside of oil and gas—that remain taxed at the lower rate. Thus, the current proposed budget could be expected to place U.S. oil and gas firms at a disadvantage when competing for capital with other U.S. firms. The current proposal will therefore likely discourage investment in “energy infrastructure and would threaten the production rates of energy companies themselves.”

22. Id.
24. Id.
2. Dual Capacity Taxpayer Rules
The Dual Capacity taxpayer rules were finalized 25 years ago, with the express intent of helping U.S. firms compete with foreign companies on a level playing field by avoiding double income taxation. Any company dealing with “a foreign country as both the sovereign and as the granter of an economic benefit, such as a concession for developing the country’s natural resources” is classified under the regulations as a Dual Capacity taxpayer.²⁸ Similar to Section 199, Dual Capacity is particularly important for oil and gas companies, even though they are technically applicable to all firms.

The regulations were finalized in 1983 after significant debates during both the Carter and Reagan administrations. The rules impose stringent burdens of proof on Dual Capacity taxpayers, more stringent than on non-Dual Capacity taxpayers. Dual Capacity taxpayers must prove that no portion of the amounts claimed as income taxes is in fact a payment for the other governmental benefit. It can do this under a “facts and circumstances” test or under a “safe harbor” test. Under the safe harbor test, where there is a generally applicable tax in the country that applies to non-Dual Capacity taxpayers, the taxpayer can utilize a specific formula to “credit the amount that would be produced … by the application of the income tax generally imposed by the foreign sovereign on all taxpayers.”²⁹

The regulation also includes “a safe harbor [provision] if the foreign country does not generally impose an income tax.”³⁰ In such a case, the safe harbor was set “to limit the credit to the amount of all [payments to foreign sovereigns] attributable to foreign oil and gas income, multiplied by the U.S. tax rate.”³¹

In addition to eliminating oil and gas companies from Section 199, the current administration’s 2011 fiscal budget also recommends significantly adjusting the Dual Capacity rules. The change would eliminate the “facts and circumstances test” and the safe harbor applicable where there is no generally applicable tax, and in all other cases limit the creditable tax to the amount that non-Dual Capacity taxpayers would pay. The effect would levy a double-tax on U.S.-based oil and gas producers, while effectively completely exempting companies headquartered in other countries.³² Unlike Section 199, the current administration intends to make the changes to Dual Capacity applicable to all taxpayers. Nevertheless, the energy sector will be severely affected since U.S. oil and gas companies often compete with foreign state-owned corporations. U.S. oil and gas firms are among the largest U.S. firms in terms of multinational revenues and can therefore be expected to be the most dramatically affected by the policy shift. The effects measured here are limited to that industry and do not estimate the broader impact of the repeal.

The adjustment to Treasury’s Dual Capacity regulation would put U.S. firms at a significant competitive disadvantage against both foreign oil and gas firms as well as other U.S. firms competing for limited investment capital. The proposed modifications for Dual Capacity companies would change how foreign levies would qualify under the provision. The proposed change would “allow the taxpayer to treat as a creditable tax the portion of a foreign levy that does not exceed the foreign levy that the taxpayer would pay if it were not Dual Capacity taxpayer.”³³ As noted,

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²⁹ Id.
³³ Id.
this would completely eliminate the facts and circumstances test and one of the safe-harbor provisions put in place to keep U.S. firms from being disadvantaged versus their foreign counterparts. Thus, “if a foreign country imposes no other tax to which a Dual Capacity taxpayer would be subject, it appears that the taxpayer would not be permitted to claim any foreign tax credits for payments to that country,” [emphasis added] even if the country still charged a tax to the firm.  

The administration estimates that the total tax revenues from revising Dual Capacity in this fashion amount to $11 billion over ten years, and Americans for Tax Reform confirms that oil and gas firms will bear the lion’s share of the burden.  

B. The Economic Effects of Removing Section 199 and Changing Dual Capacity Rules

Section 199 and Dual Capacity rules maintain a level domestic and international playing field for U.S. oil and gas firms and, in turn, benefit the U.S. economy, as a whole.

The U.S. oil and gas sector is a significant part of the overall economy. Hundreds of both large and small companies in the U.S. oil and gas industry create close to 10 million jobs “not just in exploring, producing, refining, transporting, and marketing oil and natural gas, but also through the purchases [they make] of other goods and services that support the industry’s operations.” In 2008 alone, the U.S. oil and natural gas industry paid approximately $95.6 billion in U.S. income taxes and contributed about $1 trillion to the U.S. economy. In order to measure how the proposed tax policies affect this sector, it is helpful to break the sector down into its economic subparts. U.S. oil and gas projects have three distinct phases: (1) the initial exploration and development of offshore facilities; (2) the extraction of reserves; and (3) the refining of raw product. All three phases support numerous local and national industries, such as shipbuilding, food services, and other necessary services. The refining phase, especially, contributes large “spill-over” effects around the country even though capacity is largely concentrated in California, Illinois, New Jersey, Louisiana, Pennsylvania, Texas, and Washington.

In a September 2010 report entitled “The Regional and National Economic Impact of Repealing Section 199 and Dual Capacity Tax Credit for Oil and Gas Producers,” I estimated the probable economic consequences of abolishing Section 199 and modifying Dual Capacity in terms of output, employment, wages, and state and local and Federal tax revenues generated by the oil and gas industry. In this report, I use those estimates as a basis for comparing the economic value of repealing these tax provisions as a means to reduce the budget deficit. In short, the expected contraction in tax revenues arising from decreased business activity is far larger than the expected revenue increases anticipated by the Treasury. As a result, there is no basis for classifying changes to Section 199 and Dual Capacity as deficit reduction measures. Rather, those changes remain squarely within the confines of the Obama administration energy policy, creating a tax drag on economic growth in an attempt to engineer a social shift away from fossil fuels.

34. Id.
37. See Energy and the Economy, Energy Tomorrow (available at http://www.energytomorrow.org/Energy_and_the_Economy.aspx
40. Id.
The September 2010 report used “input-output” analysis to estimate the economic effects of abolishing Section 199 and significantly changing Dual Capacity for oil and gas companies. That methodology, originally developed by Nobel Economic Laureate Wassily Leontief, has been refined by the U.S. Department of Commerce and is known as the Modern Regional Input-Output Modeling System II or “RIMS II.” The model is premised on the idea that when a company has to pay $1 more in taxes, it must take that amount from other sources: reducing workers’ pay (either through wage cuts or layoffs); reducing the returns on shareholders’ investments (through lower share price or dividends); and/or reducing its purchases of inputs. In turn, the amount is subtracted directly from funds used to pay the company’s suppliers, the suppliers’ workers, suppliers’ capital owners, etc., and impacts every member of a company’s production chain. In this way, a tax on even just a small number of firms can be felt throughout the economy. The Department of Commerce publishes tables of RIMS II multipliers that indicate how a change in one industry or state can affect the rest of the economy. A detailed description of how I applied this model can be found in the report.

I estimated that if Section 199 was repealed and Dual Capacity was changed as proposed in 2011, the U.S. could suffer approximately $341 billion in lost output over the 2011-2020 period. I also estimated that President Obama’s proposals could cost approximately 155,000 jobs in 2011 and 115,000 for each year thereafter until 2020 and that workers could suffer approximately $68 billion in lost wages from 2011 to 2020. Finally, I estimated that as a consequence of the decrease in economic activity state and local governments could lose $18 billion in tax revenue while the Federal government could lose $65 billion in tax revenue over the relevant time period. The following table summarizes my estimation of the losses that would result over the 2011-2020 period as a consequence of repealing those tax provisions:

Table 1: Summary of the Estimated Decrease in U.S. Economic Activity from Repeal of Section 199 Deduction and Change to Dual Capacity Taxpayer Rules, 2011-2020

<table>
<thead>
<tr>
<th>Output ($ Mil)</th>
<th>$341,314</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment (Jobs*)</td>
<td>154,901</td>
</tr>
<tr>
<td>Wages ($ Mil)</td>
<td>$67,800</td>
</tr>
<tr>
<td>Tax Revenues ($ Mil)</td>
<td>$83,500</td>
</tr>
</tbody>
</table>

* A job is defined by the BEA in terms of “full time person years of employment.” Total full-time person-years are divided by ten to measure jobs lost for the entire decade.

One region of the country that stands to be hit the hardest is the Gulf of Mexico. That region, already recovering from numerous recent disasters, could lose another $126 billion in economic output, more than $24 billion in wages, 56,709 jobs, and about $600 million in state and local tax revenues over the ten year period analyzed.

Updating the numbers in Table 1 for the present 2012-2021 budget cycle increases the estimated effects because of the combined influences of general and energy price inflation. Since such inflationary influences may be transitory, however, I advance my earlier estimates as more conservative and representative of the probable policy effects than those updated to the current economic environment.

As is to be expected in an integrated economy, the effects of repealing Section 199 and modifying Dual Capacity are not concentrated in the oil and gas sector. I showed in my September 2010 study that job losses are not only in the energy sector, but also across the entire economy. Table 2 summarizes the effects for representative sectors of the job market.
Table 2: U.S. Jobs Lost from Repeal of Section 199 Deduction and Changes to Dual Capacity Taxpayer Rules, 2011-2020

<table>
<thead>
<tr>
<th>Industry</th>
<th>Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, forestry, fishing, and hunting</td>
<td>516</td>
</tr>
<tr>
<td>Mining</td>
<td>3,690</td>
</tr>
<tr>
<td>Utilities</td>
<td>1,221</td>
</tr>
<tr>
<td>Construction</td>
<td>2,822</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>20,490</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>4,265</td>
</tr>
<tr>
<td>Retail trade</td>
<td>9,537</td>
</tr>
<tr>
<td>Transportation and warehousing</td>
<td>4,197</td>
</tr>
<tr>
<td>Information</td>
<td>1,572</td>
</tr>
<tr>
<td>Finance and insurance</td>
<td>3,856</td>
</tr>
<tr>
<td>Real estate and rental and leasing</td>
<td>5,239</td>
</tr>
<tr>
<td>Professional, scientific, and technical services</td>
<td>5,079</td>
</tr>
<tr>
<td>Management of companies and enterprises</td>
<td>2,905</td>
</tr>
<tr>
<td>Administrative and waste management services</td>
<td>6,790</td>
</tr>
<tr>
<td>Educational services</td>
<td>1,421</td>
</tr>
<tr>
<td>Health care and social assistance</td>
<td>7,808</td>
</tr>
<tr>
<td>Arts, entertainment, and recreation</td>
<td>1,371</td>
</tr>
<tr>
<td>Accommodation</td>
<td>890</td>
</tr>
<tr>
<td>Food services and drinking places</td>
<td>5,842</td>
</tr>
<tr>
<td>Other services</td>
<td>4,711</td>
</tr>
</tbody>
</table>

Source: Treasury Department; Bureau of Economic Analysis; U.S. Department Commerce

Table 2 shows that a large proportion of job losses (38 percent) occur in professional fields such as health care; real estate; professional, scientific, and technical services; administration; finance; education; the arts; information; and management. Manufacturing, which includes food and textile manufacturing, is also hard hit, with 21% of the total employment losses. Only about one fourth of the losses are in mining manufacturing, which includes oil and gas production and refining.

Recent estimates suggest that the repeal of Section 199 and modification of Dual Capacity will raise $18.3 billion and $10.8 billion in revenue from the oil and gas industry respectively for the Federal government between 2012 and 2021. Thus, even my conservative September 2010 estimates suggest that the predicted increase in Federal tax revenue of approximately $30 billion would induce a $53.5 billion net loss in tax revenue due to reduced economic activity in the oil and gas sector. Of course, that should not come as a surprise since the Obama administration is not promoting the repeal of Section 199 and modification of Dual Capacity as deficit reduction measures. The analysis is clear: the proposal is for punitive taxes meant to consciously kill jobs and economic activity in the oil and gas sectors in a conscious shift away from oil and gas pursuant to President Obama’s promise to the G-20.

Of course, there is some degree of error around all of the estimated tax revenue and economic effects. However, even if the error around both estimates is large, these figures suggest that it is highly unlikely that the repeal of Section 199 and the modification of Dual Capacity will result in substantially increased revenue for the Federal government. Furthermore, when one also considers the losses in output, jobs, and wages, it becomes apparent that changes to Section 199 and Dual Capacity are simply social policies with “contractionary” economic effects.


II. As Far as the Oil and Gas Industry is Concerned, A More Effective Deficit Reduction Strategy Would Be to Stimulate Production.

The sections above demonstrated that the proposed changes to Section 199 and Dual Capacity are motivated by social goals rather than deficit reduction goals. The present section shows that there are energy policy options that can contribute substantially to deficit reduction. If the administration truly prioritizes deficit reduction over other policy imperatives it is not inconceivable that dogmatic adhesions to social goals and economic engineering could take a back seat to strict fiscal imperatives. If the financial condition of the nation is as dire as it appears, such a policy shift will have to happen sooner or later. Better to undertake that shift consciously and manage the transition rather than face Greek-style popular uprisings in the face of sudden large-scale changes.

From an economic perspective, policies that encourage economic growth are effectively a “free lunch” in terms of deficit reduction, because such policies simultaneously increase the economic benefits enjoyed by the public and increase Federal tax revenue: in other words, they expand the economic pie.

Significant oil and gas reserves lie under the U.S. Outer Continental Shelf (OCS). According to the EIA, the OCS (including Alaska OCS Planning Areas) contains approximately 86 billion barrels of recoverable oil and approximately 420 trillion cubic feet of recoverable natural gas.\(^{46}\) Even the White House notes that the OCS estimates are woefully conservative.\(^{47}\)

Of the total OCS reserves, a significant portion remains unavailable to exploration. Specifically, Presidential and Congressional mandates ban production from OCS Planning Areas covering approximately 18 billion barrels of recoverable oil and 77.61 trillion cubic feet of recoverable natural gas.\(^{48}\) These bans cover approximately 31 percent of the total recoverable OCS oil reserves and 25 percent of the total recoverable OCS natural gas reserves.

46. See MMS, “Assessment of Undiscovered Technically Recoverable Oil and Gas Resources of the Nation’s Outer Continental Shelf, 2006”, MMS Fact Sheet RED-2006-01b, Feb. 2006, Table 1.

47. See White House Policy Memorandum, American Made Energy, June 18, 2008, at 2 (“About 18 billion barrels of oil and 77 trillion cubic feet of natural gas exist in OCS areas now under moratoria –absolute bans on exploration and development. These estimates are likely conservative, due to the age of the data (1970s). Actual resources may be significantly greater but we won’t know until exploration is allowed.”). OCS estimates do not include the reserves that lie under fisheries or other areas that are still closed to exploration or production, and that these reserves would be omitted from any revised numbers.

48. Id.
Figure 1, which was originally produced by the EIA, visually demonstrates the areas (in blue) that were previously unavailable. As noted previously, the estimated reserves illustrated in Figure 1 should be considered very conservative lower bounds of recoverable energy resources.

**Figure 1: OCS Planning Areas and Estimated Reserves**

![Diagram of OCS Planning Areas and Estimated Reserves]

Source: Phyllis Martin, Unpublished U.S. Energy Information Administration memorandum (based on MMS Assessment of Undiscovered Technically Recoverable Oil and Gas Resources Of the Nation’s Outer Continental Shelf, 2006), on file with the author.

Note: Alaska OCS Planning Areas not shown here. Only one Alaska OCS Planning Area (Northern Aleutians) was subject to an exploration and production moratorium.

In contrast to other industries, the high fixed investment costs associated with offshore oil and gas production produce large initial investments that reverberate throughout the economy. Once oil or gas reserves are located, billions of dollars must be spent before the well produces even $1 of revenue. For example, oil exploration costs can amount to between $200,000 and $759,000 per day per site.\(^{(49)}\) The fixed expenditures that precede actual offshore oil and gas production can amount to billions of dollars.

For example, Chevron’s “Tahiti” project in the Gulf of Mexico is representative of the large investments that firms must make before production is achieved. In 2002, Chevron explored the Tahiti lease—which lies 100 miles off the U.S. coast at a depth of 4,000 feet—and found “an estimated 400 million to 500 million barrels of recoverable resources.”\(^{(50)}\) Chevron estimated that it would take seven years to build the necessary infrastructure required to begin production at Tahiti.\(^{(51)}\) The firm estimated that its total development costs will amount to “$4.7 billion—before realizing $1 of return on our investment.”\(^{(52)}\)

As a typical U.S. offshore project, the Tahiti project provides a wealth of information regarding the up-front investment costs, length of investment, and lifespan of future OCS fields. As noted above, the Tahiti field is estimated to hold between 400 million and 500 million barrels of oil and oil equivalents (primarily natural gas) and is expected to require an initial fixed investment of $4.7 billion. Using the mid-point reserve estimate of 450 million barrels of oil equivalent, up-front development costs amount to approximately $10.44 per barrel of oil reserves or $1.86 per 1,000 cubic feet of natural gas reserves.\(^{(53)}\) These costs will be spread over an average of 7 years, resulting in average up-front development expenditures equal to $1.49 per barrel of oil and $0.27 per 1,000 cubic feet of natural gas.

49. See Statement of John Hofmeister, President, Shell Oil Company, Before the U.S. House Select Committee on Energy Independence and Global Warming, Apr. 1, 2008 [hereinafter Shell Testimony], at 7-8 (discussing the run-up in Gulf of Mexico exploration costs).

50. Statement of Peter J. Robertson, Vice Chairman, Chevron Corp., Prepared for the House Select Committee on Energy Independence and Global Warming, Apr. 1, 2008 [hereinafter Chevron Testimony], at 6 (“In 2002, we used leading-edge technology to drill in 4,000 feet of water and found an estimated 400 million to 500 million barrels of recoverable resources. It will take seven years to build the infrastructure required to produce the oil and gas more than a 100 miles offshore.”).

51. Id.

52. Id. ("When Tahiti finally comes on line, we will have invested $4.7 billion—before realizing $1 of return on our investment.").

53. The natural gas investment price is based on the conversion of 5,620 cubic feet of natural gas per 1 barrel of oil equivalent. One barrel of oil is equal to one barrel of oil equivalent. See MMS, Assessment of Undiscovered Technically Recoverable Oil and Gas Resources Of the Nation's Outer Continental Shelf, Feb. 2006, at 1 (Oil-equivalent gas is a volume of gas (associated and/or nonassociated) expressed in terms of its energy equivalence to oil (i.e., 5,620 cubic feet of gas per barrel of oil) and is reported in barrels."). Thus if the cost is $10.44 per barrel of oil equivalent, the calculation is $10.44 / 5,620 cubic feet per barrel of oil equivalent * 1,000 cubic feet = $1.86 per 1,000 cubic feet of natural gas.
of natural gas.\textsuperscript{54} Chevron also estimates that the Tahiti project will produce for “up to 30 years.”\textsuperscript{55} Although investment and production times vary widely,\textsuperscript{56} the analysis uses the Tahiti project numbers—an average initial investment period of seven years followed by an average production period of 30 years—as indicative of the “typical” offshore project.

The speed of OCS development also factors into the analysis. Because most areas of the U.S. OCS have been closed to new exploration and production for almost forty years, it is unclear how quickly firms would move to develop new offshore fields. Given its large potential reserves, however, the OCS is sure to attract significant investment. Without the benefit of government data, a rough estimate suggests that annual total investment in OCS fields would be $9.09 billion per year.\textsuperscript{57}

My February 2009 report entitled “The Economic Contribution of Increased Offshore Oil Exploration and Production to Regional and National Economies,”\textsuperscript{58} applied the RIMS II model to assess the economic consequences of allowing oil and gas exploration and production in the designated OCS Planning Areas located between 3 and 200 miles off the coast of 20 U.S. States. The economic analysis was based on assessing the economic activity generated during the three phases of development in the oil and gas industry and breaking those economic effects into short- and long-term dynamics.

The following table summarizes my findings of the economic benefits that would accrue from exploration and production in the OCS on an annual basis in the short-term pre-production stage and long-term production stage and in terms of output, employment, wages, tax revenue, and royalties:

<table>
<thead>
<tr>
<th>Economic Component</th>
<th>Short-Run</th>
<th>Long-Run</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Output</td>
<td>$73.0 billion</td>
<td>$273.0 billion</td>
</tr>
<tr>
<td>Employment</td>
<td>0.27 million</td>
<td>1.20 million</td>
</tr>
<tr>
<td>Annual Wages</td>
<td>$15.7 billion</td>
<td>$70.0 billion</td>
</tr>
<tr>
<td>Annual Federal Tax and Royalty Revenue</td>
<td>$11.1 billion</td>
<td>$69.0 billion</td>
</tr>
<tr>
<td>Annual State and Local Tax Revenue</td>
<td>$4.8 billion</td>
<td>$18.7 billion</td>
</tr>
</tbody>
</table>

*Note: Short-run effects are those provided annually during the first seven years of the investment (pre-production) phase; Long-run effects are those provided annually during the thirty-year production phase.*

Updating the numbers in Table 3 for the present economic environment increases the estimated

\textsuperscript{54} $10.44 per barrel of oil / 7 years = $1.49 per barrel of oil per year, and $1.86 per 1,000 cf / 7 years = $0.27 per 1,000 cf per year.

\textsuperscript{55} Chevron Testimony, supra note, at 6 (“Once in production, Tahiti is expected to produce for up to 30 years.”).

\textsuperscript{56} See Minerals Management Service, Deepwater Gulf of Mexico 2008: America’s Offshore Energy Future, OCS Report MMS 2008-13, May 2008 [hereinafter MMS Deep Water 2008], at 77 (showing that the lag between lease acquisition and production ranges between 2.9 years for the most recent leases presently in production to a high of 14.7 years for leases acquired in 1986-87). The lag between lease acquisition and production is negatively correlated with the size of the field and is positively correlated with the complexity of each field. This implies that larger fields are developed sooner and more complex fields are developed later, ceteris paribus.

\textsuperscript{57} The natural gas investment price is based on the conversion of 5,620 cubic feet of natural gas per 1 barrel of oil equivalent. One barrel of oil is equal to one barrel of oil equivalent. See MMS, Assessment of Undiscovered Technically Recoverable Oil and Gas Resources of the Nation's Outer Continental Shelf, Feb. 2006, at 1 (Oil-equivalent gas is a volume of gas (associated and/or nonassociated) expressed in terms of its energy equivalence to oil (i.e. 5,620 cubic feet of gas per barrel of oil) and is reported in barrels.”). Thus if the cost is $10.44 per barrel of oil equivalent, the calculation is $10.44 / 5,620 cubic feet per barrel of oil equivalent * 1,000 cubic feet = $1.86 per 1,000 cubic feet of natural gas.

effects because of the combined influences of general and energy price inflation. Since such inflationary influences could be transitory, however, I advance my earlier estimates as more conservative and representative of the probable policy effects than those updated to the current economic environment.

Additionally, the estimates in Table 3 do not include lease revenues that would accrue to the Treasury in the near term. Such revenues would be expected to amount to a sizeable fiscal fillip for the Treasury, albeit one that has waned significantly in the past several years. In 2008, the Treasury collected “more than $10 billion in bonus bids paid by companies to lease tracts for offshore energy exploration on the Outer Continental Shelf in the Gulf of Mexico and Alaska, as well as from onshore lease sales.” 59 In 2009 bonus bid revenues fell to just under $2 billion and in 2010 they fell further to $1.3 billion. 60 Hence, there is reason to believe that bonus bids would result in a substantial cash inflow for the Treasury, one that could potentially—given the massive size of the OCS—make a significant dent in near-term budget deficits.

As before, the BEA data also allow an analysis of the types of employment that would be supported by increased offshore oil and gas extraction. Increased investment and production in previously unavailable OCS oil and gas extraction and the ancillary industries that support the offshore industry would produce thousands of new jobs in stable and valuable industries. Again, the immediate and the long-run benefits are considered separately. The benefits are broken down using specific BEA multipliers for each industry, which can be used to determine which industries will benefit the most from increased offshore oil and gas production.

Table 4, Column A, reports the expected total increase in annual employment over the first years of the investment phase. Table 4, Column A, gives a sense of the distribution of the 271,572 jobs created in the investment phase and sustained during the first seven years of the investment cycle. The majority of new positions (162,541 jobs, or 60 percent) would be created in high-skills fields, such as health care, real estate, professional services, manufacturing, administration, finance, education, the arts, information, and management. Only about eight percent of the jobs, 21,550, are directly in the oil and gas sector (mining).

Table 4, Column B reports the estimated total increase in employment over the life of the production phase. Although the largest total increase in employment would occur (quite naturally) in the mining industry, that still only accounts for about a quarter of jobs created. Significant numbers of jobs would be created in other industries, many of those in high-skills fields. These high-skills sectors represent approximately 49 percent of all new jobs and approximately 61 percent of all new non-mining jobs. 61

61. That is, the high-skills industries collectively account for 579,379 new 30-year positions out of a total of 1,189,983 new careers (and 953,908 new non-mining careers). Thus 579,379 / 1,189,983 = 0.49 and 579,379 / 953,908 = 0.61.
Table 4: Changes in Employment from Production in Previously Unavailable OCS Planning Areas and Ongoing Refining

<table>
<thead>
<tr>
<th>Industry</th>
<th>Short-term Employment Increase</th>
<th>Long-term Employment Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining</td>
<td>21,550</td>
<td>236,075</td>
</tr>
<tr>
<td>Health care and social assistance</td>
<td>20,760</td>
<td>125,430</td>
</tr>
<tr>
<td>Retail trade</td>
<td>10,343</td>
<td>117,946</td>
</tr>
<tr>
<td>Accommodation and food services</td>
<td>7,741</td>
<td>81,487</td>
</tr>
<tr>
<td>Real estate and rental and leasing</td>
<td>39,537</td>
<td>80,882</td>
</tr>
<tr>
<td>Professional, scientific, and technical services</td>
<td>15,290</td>
<td>74,952</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>22,920</td>
<td>69,890</td>
</tr>
<tr>
<td>Administrative and waste management services</td>
<td>12,806</td>
<td>69,742</td>
</tr>
<tr>
<td>Finance and insurance</td>
<td>8,007</td>
<td>63,081</td>
</tr>
<tr>
<td>Other services</td>
<td>14,077</td>
<td>60,236</td>
</tr>
<tr>
<td>Transportation and warehousing</td>
<td>11,918</td>
<td>42,206</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>14,238</td>
<td>34,859</td>
</tr>
<tr>
<td>Educational services</td>
<td>5,149</td>
<td>31,683</td>
</tr>
<tr>
<td>Arts, entertainment, and recreation</td>
<td>12,045</td>
<td>24,005</td>
</tr>
<tr>
<td>Information</td>
<td>6,341</td>
<td>20,532</td>
</tr>
<tr>
<td>Management of companies and enterprises</td>
<td>19,685</td>
<td>19,184</td>
</tr>
<tr>
<td>Agriculture, forestry, fishing, and hunting</td>
<td>5,046</td>
<td>18,269</td>
</tr>
<tr>
<td>Construction</td>
<td>12,885</td>
<td>7,609</td>
</tr>
<tr>
<td>Households</td>
<td>9,823</td>
<td>7,050</td>
</tr>
<tr>
<td>Utilities</td>
<td>1,409</td>
<td>4,867</td>
</tr>
<tr>
<td>Total</td>
<td>271,572</td>
<td>1,189,983</td>
</tr>
</tbody>
</table>

III. There are Creative Options that can Potentially Achieve Tax Reform, Deficit Reduction, and Economic Stimulus

Some may be tempted to argue that while the economic and fiscal effects of opening up the OCS are large, they are not – by themselves – a solution to the deficit crisis. In my opinion, the difference comes about in future years’ tax revenues and additional avenues for growth in the U.S. economy, beyond mere oil and gas. Finding ourselves in a stressed fiscal environment, we can turn to lessons from other countries that have successfully managed their way to higher growth and lower deficits.

The World Bank’s Doing Business Report is spawning thousands of studies on the effects of business reforms, which are regularly featured in popular press such as the Economist. Developing countries find it necessary to reform to alleviate bureaucracy and corruption so that business can flourish. The Economist reports, “One study shows that, in poor countries, a ten-day reduction in the time it takes to start a business can lead to an increase of 0.4 percentage points in GDP growth. Another shows that people who have a formal title to their property invest as much as 47% more in their businesses.”

Of course, conditions in the U.S. are not as dire. Reform, nonetheless, supports business development in both high-flying developing and developed countries, alike. The best reformers have several things in common. First, their reforms are part of a broad agenda of boosting competitiveness. Over the past five years, even countries like Rwanda, Egypt, Colombia and Malaysia have each implemented at least 19 reforms.

Second, countries that successfully harness reform as a source of economic growth never stop. Asian tigers like Hong Kong and Singapore introduce substantial reforms each year. Even “Germany introduced laws to make it easier to establish joint-stock companies, scrapping ancient regulations, because so many German companies were taking advantage of the single European market and incorporating in Britain.”

It is clear that the “… willingness of governments to keep reforming in tough economic times strengthens the prospects for recovery. Sensible regulations not only make it easier for new firms to get started, but also help established firms change direction and clapped-out firms declare bankruptcy.” The question is whether the U.S. is up to the test. “It often takes a shock to set the reform machine in motion. Several countries that have been racked by civil wars, including Rwanda, Afghanistan and Sierra Leone, have brought in new company laws.”

I can only hope that we choose to emulate countries whose growth and business policies we admire and do not wait for similar pressure.

63. Id.
64. Id.
65. Id.
Such a view is not out of place in the U.S. The National Commission on Fiscal Responsibility and Reform’s December 2010 “Moment of Truth” report explains “[t]he tax code is rife with inefficiencies, loopholes, incentives, tax earmarks, and baffling complexity. We need to lower tax rates, broaden the base, simplify the tax code, and bring down the deficit. We need to reform the corporate tax system to make America the best place to start and grow a business and create jobs.” Thus the key principles of tax reform as explained by the White House’s own commission are (1) simplicity, (2) reduction in overall tax rates to stimulate the economy and (3) expansion of the tax base.

However, the President’s proposal to abolish Section 199 and change Dual Capacity is not accompanied by any major simplification in corporate taxation. Rather, it raises tax rates on the oil and gas industry while leaving overall tax rates unchanged, and it will make U.S. companies less competitive internationally and impose restrictions for U.S. multinational oil and gas companies repatriating foreign profits to the United States. It will take concerted long-term efforts toward tax reform, and more, to increase U.S. competitiveness, restore growth, and curb the deficit.
IV. Conclusions

The present budget debate continues to confuse the three concepts of deficit reduction, tax reform, and tax increases. The comparison in this paper illustrates that the effect of energy-related tax policies in the Obama administration budget proposal is antithetical to the stated goal of deficit reduction. Moreover, such policies are restrictive to both business activity and economic growth. They therefore achieve the worst of both worlds: they hurt the economy while exacerbating the federal budget deficit.

The sad part of the continuing saga is that things don’t have to be this way. At the very least, the administration can try to clarify its policy goals and debate the merits of energy policies rather than trying to shoehorn them into the budget negotiations through confusion and obfuscation. At most, the administration might step down from their dogmatic approach to energy policy and show some flexibility with respect to OCS development, spurring jobs that can provide economic growth that feeds investment in new energy technologies.

With a little bit of creative thinking, the administration might even be able to squeeze increased tax revenues out of multinational firms by entertaining ideas about alternative tax policies. That, too, will require a departure from the same dogmatic energy policy and a firm focus on deficit reduction separate from pet energy issues.

Now is the time to decide what our fiscal priorities really are. In that respect, the budget debate has been right to hold up debt ceiling approval and other items in order to sort out priorities from pork barrel and logrolling politics. As the months have passed, enough time has passed to separate the approaches of all of the parties involved based upon their actions, rather than their rhetoric. On that basis, it is clear that the Section 199 and Dual Capacity tax proposals are related to energy policy, not deficit policy, and should be excluded from the budget debate outside of proposals for things like overall tax reform.

The implications of such findings go far beyond energy policies to business growth policies, generally. Most developing countries and many developed countries step up to the challenge of growing their economies through institutional reform in the style popularized by the Nobel Prize-winning work of Douglass C. North. The U.S. can, too. But identifying and addressing such reforms requires staunch long-term commitment and courage. Even developing countries previously stung by fiscal imbalances and committed to business reform rarely retreat to increased taxes as a way to raise revenues. The U.S. should also step up to the challenge of reform, rather than taxation. To the extent that opponents will argue that such an approach will only yield long-term benefits, I argue that the long-term begins now.

68. The World Bank reported that despite worldwide fiscal pressures, in 2009, “…only one country increased its corporate income-tax rate: Lithuania, from 15% to 20%.”