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***Discussion -- State Tax Policy and Oil
Production: The Role of the Severance Tax and
Credits for Drilling Expenses. (Chakravorty,
Gerking and Leach)***

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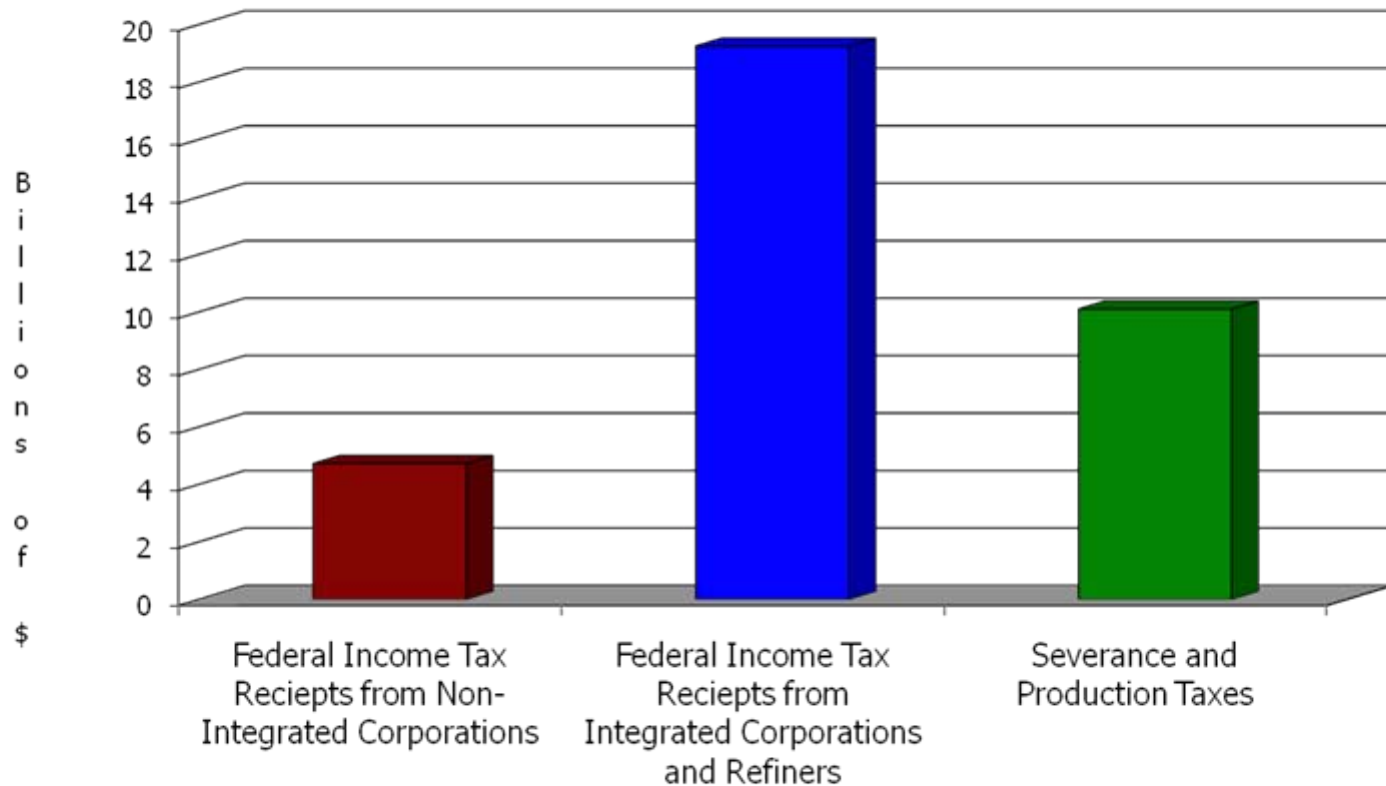
*The views expressed do not necessarily reflect those of the U.S. Department of the Treasury.



Introduction

- This is a timely paper, although, the current motivation for examining oil gas taxes may not be for an interest in “stimulating new reserves” but in improving efficiency
- Useful and transparent model for understanding the effects of tax changes on oil industry
- Paper is also very beneficial to those like myself who tend to view taxes through a federal lens

Comparison of 2007 State Taxes and Federal Income Taxes from Oil and Gas Firms



Sources: Federal income tax data are from the Internal Revenue Service, Statistics of Income Division 2007 corporate data file. Severance and production tax data are from the Independent Petroleum Association of America (IPAA) and include all state and local tax revenues.



Tax Preferences May be of Limited Value for Increasing Domestic Oil Production

- Chakravorty, Gerking and Leach (2009) – domestic oil production insensitive to price and tax rate changes
- Brown (2009) and Metcalf (2007) – eliminating federal tax preferences has little effect on prices and production



Modeling Assumptions – Percentage Depletion

- Non-integrated oil and gas firms can take percentage depletion, which allows for a 15 percent deduction of the taxpayer's income subject to certain limitations
 - Non-integrated producers drill about 90 percent of domestic oil and natural gas wells, produce over 65 percent of domestic oil, and more than 80 percent of domestic natural gas (IPAA 2009)
- Percentage depletion will affect the present value of net drilling costs
 - Depletion deductions may be far greater than the amount expended by the taxpayer to acquire or develop the property



Modeling Assumptions – Effective Tax Rate

- Model assumes the effective federal tax rate for net operating income is 10 percent.
 - Taxes paid are a function of more than current operating income.
 - Carry-forwards of net operating losses; general business credits; foreign tax credits; AMT credits
 - For corporate rates include C-corporations, not pass-through corporations
- Average effective tax rates are difficult to calculate
 - Need to determine present value of current and future taxes and economic income



Modeling Assumptions – Prices

- Prices remain fixed in the model
- What would be the effect of prices rising over time – Hotelling rule
 - However, no empirical evidence for prices rising over time. New technology has overcome geophysical scarcity.



Modeling Assumptions – Expensing



- Expensing Assumptions
 - Non-integrated firms can expense 100 percent of their intangible drilling costs
 - Not all drilling costs can be expensed but the share of current drilling costs expensed may be higher than 40 percent for non-integrated firms

Future Work

Non-Integrated Firms and Natural Gas Industry

- Is it possible to model integrated and non-integrated production?
- Would model of natural gas production show similar results?
 - Not a world market, yet
 - How long will natural gas prices stay low