TAX FOUNDATION

A Guide to the Fossil Fuel Provisions of the Biden Budget

Alex Muresianu Policy Analyst
Will McBride Vice President of Federal Tax Policy

September 2023

Key Findings

- The Biden administration's budget proposes raising taxes on the U.S. fossil fuel industry.
- The proposals largely depart from neutral tax policy and intentionally target the industry.
- Internal Revenue Service data does not indicate any substantial tax preference for the fossil fuel industry, rather indicating the industry pays relatively high levels of tax.
- Raising taxes on U.S. production and ownership of fossil fuel, both domestically and abroad, disadvantages U.S. companies and workers in favor of foreign suppliers.
- Taxing fossil fuel consumption, through user fees or a carbon tax, would avoid creating preferences for foreign-owned fossil fuel.

The Tax Foundation is the world's leading nonpartisan tax policy 501(c)(3) nonprofit.
For over 80 years, our mission has remained the same: to improve lives through tax policies that lead to greater economic growth and opportunity.
TAX FOUNDATION 1325 G STREET, NW, SUITE 950, WASHINGTON, DC 20005
202-464-6200 | taxfoundation.org

Introduction

One prominent feature of President Biden's agenda on the environment is to target U.S. fossil fuel (e.g., oil, gas, and coal) producers and production with nearly $97 billion in tax increases over the next decade.[1] While some of the changes could have a marginally beneficial impact on the environment, in practice most would deny the industry normal cost recovery and subject it to additional layers of tax not faced by other industries in the U.S. or abroad. By focusing on taxing U.S. producers, foreign producers of fossil fuel would benefit, causing the U.S. economy to become marginally more reliant on imports and foreign, often state-owned, producers from countries like Saudi Arabia, Russia, and China. Taxing consumption of fossil fuels, rather than domestic production, would be a more neutral approach.

What Are the Fossil Fuel Tax Provisions?

In the Treasury Department's Green Book, under the heading "eliminate fossil fuel tax preferences," 13 current-law provisions would be repealed or replaced, raising $31 billion over 10 years.[2] They can be split into four categories, discussed below. Additionally, the document details $66 billion of tax increases on the foreign income of U.S. oil and gas companies.

Whether the provisions should count as "subsidies" depends on one's understanding of what the right "normal" corporate tax base is. In our view, corporations should be taxed on profits, or revenues minus costs. Costs should include both regular expenses like wages and office supplies, as well as investment expenses like acquiring new heavy machinery. And costs should be deducted when they are incurred, preventing factors such as inflation and the time value of money from eating away at the real value of the deduction.

Category 1: Cost Recovery Provisions ($12.78 billion)

The cost recovery provisions allow fossil fuel companies to deduct the costs of certain expenses in a way equivalent firms in other industries would. The Biden proposals would reduce the real value of the deductions for oil and gas companies by forcing them to spread the deductions over longer time horizons. A simpler approach that would also be more neutral across industries and assets would be to let all companies fully expense their investments, i.e., immediately deduct the full cost.[3] The Tax Cuts and Jobs Act made 100 percent bonus depreciation available for many types of capital investment, though that is now phasing out, making the oil and gas cost recovery provisions no different from treatment widely available across the tax code.[4]

1 United States Department of the Treasury, "General Explanations of the Administration's Fiscal Year 2024 Revenue Proposals," March 2023, https://home.treasury.gov/system/files/131/General-Explanations-FY2024.pdf,
2 Ibid.
3 Tax Foundation, "Full Expensing," TaxEDU, https://www.taxfoundation.org/tax-basics/full-expensing/.
4 Erica York and Alex Muresianu, "The TCJA's Expensing Provision Alleviates the Tax Code's Bias Against Certain Investments," Tax Foundation, Sept. 5, 2018, https://taxfoundation.org/tcja-expensing-provision-benefits/.

Table 1. Proposed Changes to Fossil Fuel Cost Recovery Provisions in the Biden Budget

Tax Provision	10-Year Budget Cost	Description of Current Law and Biden Administration Proposal
Expensing for Intangible Drilling Costs	$8.492 billion	Independent, non-integrated producers can expense all costs related to drilling that do not have salvage values immediately (e.g., basic supplies, surveyors, and well maintenance), while large companies can expense 70 percent of those same costs and must deduct the remaining 30 percent over five years. The Biden administration proposal would require both types of firms to spread deductions for all these costs over five years.
Amortization of Geological and Geophysical Costs	$2.847 billion	Independent producers can expense the cost of accumulating data that will become the basis for extraction of mineral properties over two years, while integrated producers must deduct the same costs over seven years. The Biden administration proposal would require independent producers to deduct these costs over seven years.
Expensing for Mine Exploration and Development Costs	$0.703 billion	Companies can expense the costs of ascertaining the location, quality, or quantity of a deposit, as well as the costs of development for extraction once the deposit is discovered. The Biden administration proposal would require companies to spread deductions for those costs over several years.
Accelerated Amortization of Air Pollution Control Equipment	$0.741 billion	Certain types of air pollution control facilities can be deducted over either five years or seven years. The Biden administration would require companies to deduct those costs over 39 years.
Deduction for Tertiary Injectants	$0	Companies can deduct the cost of injectants the year they are purchased, like any ordinary expense. The Biden administration would disallow this deduction.

Sources: United States Department of the Treasury, "General Explanations of the Administration's Fiscal Year 2024 Revenue Proposals," March 2023, https://home.treasury.gov/system/files/131/General-Explanations-FY2024.pdf, see also White House, "Budget of the United States Fiscal Year 2024," March 2023, https://www.whitehouse.gov/wp-content/uploads/2023/03/budget_fy2024.pdf.

Analysis

The provisions are conventional deductions for costs incurred, not subsidies. In the ideal tax system, all costs should be deducted the year they are incurred, whether regular recurring expenses like wages and utility bills or major capital investments in equipment, machinery, or structures.[5] Notably, many of the costs included as intangible drilling costs are wages, making full deductions the normal tax treatment even without expensing for investments in equipment and machinery. In the case of intangible drilling costs—by far the largest of the cost recovery provisions—the eligible costs are effectively operating costs, which are typically expensed even under a tax system that requires depreciation for capital investment.[6]

Cost recovery provisions often wrongly get classified as subsidies, as some analysts rely on a different definition of a neutral tax system. Specifically, they use Haig-Simons taxation, where the cost of investment is deducted over the lifetime of the asset.[7] The problem with this system economically is that the real value of the deductions declines over time thanks to inflation and the time value of money (a dollar

5 Stephen J. Entin, "The Tax Treatment of Capital Assets and Its Effect on Growth: Expensing, Depreciation, and the Concept of Cost Recovery in the Tax System," Tax Foundation, Apr. 24, 2013, https://www.taxfoundation.org/tax-treatment-capital-assets-and-its-effect-growth-expensing-depreciation-and-concept-cost-recovery/.

6 Alex Muresianu, "What Biden's Budget Gets Wrong about Expensing for Intangible Drilling Costs," Apr. 19, 2023, https://taxfoundation.org/blog/biden-energy-tax-policies/.

7 Alex Muresianu, "How the CARES Act Shifted the Composition of Tax Expenditures Towards Individuals," Tax Foundation, Mar. 24, 2021, https://www.taxfoundation.org/federal-tax-expenditures-cares-act/.

today is worth more than a dollar tomorrow). So companies are unable to deduct the full cost of their investments, creating a tax bias against investment, and that bias leads to lower productivity and lower wages in the long run.[8]

Category 2: Percentage Depletion ($14.69 billion)

Percentage depletion allows some taxpayers (specifically non-integrated producers, which also face some additional restrictions) to deduct a fixed percentage of their gross income derived from the property.[9] Meanwhile, cost depletion allows a company to deduct a portion of the cost of acquiring the reserves equal to the amount of reserves depleted in that year. Eligible companies deduct the larger of the fixed percentage of gross income or the cost of the resources depleted.

Table 2. Proposed Changes to Percentage Depletion in the Biden Budget

Tax Provision	10-Year Budget Cost	Description of Current Law and Biden Administration Proposal
Percentage Depletion for Oil and Gas Wells	$13.861 billion	This provision allows certain independent oil and gas producers to deduct 15 percent of their gross income instead of the cost of resources depleted in a given year. It is limited to wells with an average daily production of up to 1,000 barrels of oil or gas-equivalents, and the percentage depletion deduction is limited to 100 percent of net income from the well and 60 percent of income per taxpayer. The Biden administration would eliminate percentage depletion and make cost depletion the only option.
Percentage Depletion for Hard Mineral Fossil Fuels	$0.829 billion	The tax code has a similar provision for recovering the cost of acquiring coal reserves. Certain producers can deduct 10 percent of their gross income instead of the cost of resources depleted in a given year. Coal producers face a limit of 50 percent of net income on the deduction for depletion. Additionally, percentage depletion deductions for coal corporations are reduced by 20 percent of the difference between the percentage depletion method and the cost depletion method. The Biden administration would eliminate percentage depletion and make cost depletion the only option.

Source: United States Department of the Treasury, "General Explanations of the Administration's Fiscal Year 2024 Revenue Proposals," March 2023, https://home.treasury.gov/system/files/131/General-Explanations-FY2024.pdf, see also White House, "Budget of the United States Fiscal Year 2024," March 2023, https://www.whitehouse.gov/wp-content/uploads/2023/03/budget_fy2024.pdf.

Analysis

Percentage depletion is a difficult issue. In some circumstances, it can allow companies to deduct more than the real value of the original costs they incurred, making it sometimes equivalent to a non-neutral tax break.[10] In other cases, it does not allow firms to deduct the full value of the original cost.[11] The ideal tax treatment of oil reserves in this regard would be to allow companies to deduct the full acquisition cost the year they purchased them.[12]

8 Stephen J. Entin, "The Tax Treatment of Capital Assets and Its Effect on Growth: Expensing, Depreciation, and the Concept of Cost Recovery in the Tax System," Tax Foundation, Apr. 24, 2013, https://taxfoundation.org/blog/tax-treatment-capital-assets-and-its-effect-growth-expensing-depreciation-and-concept-cost-recovery/.

9 Julia Kagan, "Percentage Depletion," Investopedia, Jan. 17, 2021, https://www.investopedia.com/terms/p/percentage-depletion.asp.

10 Congressional Research Service, "Tax Expenditures: Compendium of Background Materials on Individual Provisions," December 2020, https://www.govinfo.gov/content/pkg/CPRT-116SPRT42597/pdf/CPRT-116SPRT42597.pdf.

11 See Appendix A for more details.

12 Garrett Watson and Erica York, "Three Reasons Why Full Cost Recovery Is Right, Even If Asset Increase in Value," Tax Foundation, Aug. 5, 2021, https://www.taxfoundation.org/depreciation-deductions-cash-flow-tax/.

It is unclear whether shifting to expensing would on net reduce or increase tax revenue, given that the current tax treatment sometimes creates a subsidy and sometimes creates a penalty relative to expensing. Some evidence indicates that percentage depletion creates a negative marginal tax rate on certain oil and gas investment performed by independent producers.[13] On the other hand, percentage over cost depletion is not a unique benefit for fossil fuels; some version of percentage depletion is available for many different forms of resource extraction.[14]

It is also worth noting that to the extent percentage depletion works as a subsidy, it is exclusively for independent producers—the major, integrated oil and gas companies are not eligible for it. Nonetheless, the administration has characterized the changes to fossil fuel provisions as going after Big Oil.[15]

Category 3: Tax Credits ($0 billion)

As opposed to deductions, which reduce taxable income, tax credits reduce tax liability directly, on a dollar-for-dollar basis.[16] The two tax credits targeted for elimination in the Biden proposal are the tax credit for marginal wells and the enhanced oil recovery credit.

Table 3. Proposed Changes to Tax Credits for Fossil Fuels in the Biden Budget

Tax Provision	10-Year Budget Cost	Description of Current Law and Biden Administration Proposal
Enhanced Oil Recovery Credit	$0 billion	This credit allows companies to reduce their tax liability by 15 percent of the qualified costs associated with enhanced oil recovery projects. Enhanced oil recovery involves more complex methods of extracting oil from a well, such as injecting steam, liquid, or certain chemicals. The credit phases out when the price of oil per barrel is higher than $55.99, as of 2023. The Biden proposal would eliminate the credit.
Credit for Marginal Oil and Gas Wells	$0 billion	This tax credit benefits production marginal oil and gas wells when oil prices are below a certain threshold. Marginal oil wells are defined as wells producing on average no more than 15 barrels a day, or wells that produce under 25 barrels of oil-equivalent and produce at least 95 percent water. Meanwhile, marginal gas wells are wells that produce less than 90 MCF (thousand cubic feet) of natural gas per day (90 MCF being equivalent to 15 barrels of oil). In 2022, the credit provided $0.70 per MCF on paper, but the reference price of natural gas was well above the threshold, meaning it provided no tax relief. The Biden proposal would eliminate the credit.

Sources: United States Department of the Treasury, "General Explanations of the Administration's Fiscal Year 2024 Revenue Proposals," March 2023, https://home.treasury.gov/system/files/131/General-Explanations-FY2024.pdf; see also White House, "Budget of the United States Fiscal Year 2024," March 2023, https://www.whitehouse.gov/wp-content/uploads/2023/03/budget_fy2024.pdf; Tax Analysts, "IRS Publishes Oil Recovery Credit Inflation Adjustment Factors," Tax Notes, Aug. 21, 2023, https://www.taxnotes.com/research/federal/irs-guidance/notices/irs-publishes-oil-recovery-credit-inflation-adjustment-factors/7h361; Internal Revenue Service, "Internal Revenue Bulletin: 2023-23," Jun. 5, 2023, https://www.irs.gov/irb/2023-23_IRB.

13 Gilbert E. Metcalf, "Taxing Energy in the United States: Which Fuels Does the Tax Code Favor," Manhattan Institute, January 2009, https://media4.manhattan-institute.org/pdf/eper_04.pdf.
14 26 U.S. Code § 613 – Percentage Depletion, https ://www.law.cornell.edu/uscode/text/26/613.
15 The White House, "FACT SHEET: The President's Budget for Fiscal Year 2024," Office of Management and Budget, Mar. 9, 2023, https://www.whitehouse.gov/omb/briefing-room/2023/03/09/fact-sheet-the-presidents-budget-for-fiscal-year-2024/.
16 Tax Foundation, "Tax Credit," TaxEDU, https://www.taxfoundation.org/tax-basics/tax-credit/.

Analysis

The enhanced oil recovery credit (enacted in 1991) and the marginal well tax credit (enacted in 2004) only phase in when the price of oil or natural gas falls below a certain point. The general goal of both policies is to keep partially depleted or small wells online despite price fluctuations that make them temporarily unviable. Some argue it makes sense to support the continued operation of marginal wells to fully deplete their reserves so they do not end up getting abandoned with some reserves still underground.[17] Another justification for the credits is that they could reduce the environmental problems of abandoned, "orphaned" wells.[18]

The marginal wells credit and the enhanced oil recovery credits are correctly classified as subsidies and constitute non-neutral support of fossil fuels. However, they have no projected costs over the course of the next decade, as both are contingent on oil and gas prices, and prices may remain elevated for the whole decade. Between 2005 and 2016, both credits were unavailable.[19] Even in 2020, when oil and gas prices declined significantly, the credit for marginal oil wells remained phased out.[20] The credits ought to be repealed, though repealing them would likely not raise significant revenue.

Category 4: Other Provisions ($3.318 billion)

President Biden's proposals contain a handful of other domestic tax provisions designed to raise revenue from the fossil fuel industry.

Table 4. Other Domestic Fossil Fuel Tax Changes in the Biden Budget

Tax Provision	10-Year Budget Cost	Description of Current Law and Biden Administration Proposal
Treatment of Publicly Traded Fossil Fuel Partnerships	$0.945 billion	Publicly traded partnerships are generally taxed as corporations, unless they derive 90 percent or more of their gross income from passive investments including from depletable natural resources, real estate, and commodities. The Biden proposal would tax publicly traded fossil fuel partnerships as C corporations.
Capital Gains Tax Treatment for Royalties	$0.617 billion	Gains from the sale of the rights to lignite and coal held by the original owner for more than one year are treated as long-term capital gains. The Biden proposal would tax these gains as ordinary income.
Excise Tax Exemptions for Crude Oil from Bitumen and Kerogen-Rich Rock	$1.68 billion	The Oil Spill Liability Trust Fund (OSLTF) is dedicated to financing responses to oil spills and is funded by a 9-cent excise tax on domestic crude oil and imported crude oil and petroleum products. However, the existing tax does not include oil derived from bitumen and kerogen-rich rock. The Biden proposal would apply the excise tax to oil from those sources.
Exemption to Passive Loss Limitation for Working Interest in Oil and Gas	$0.076 billion	Losses from a working interest in oil and gas held directly in a partnership (or other form with unlimited liability) are not subject to passive loss limitations, whether or not the taxpayer was involved in the operation. Typically, taxpayers face limits to how much in losses they can deduct when those losses were from an activity they had no direct hand in running. The Biden administration proposal would repeal the exemption.

Sources: United States Department of the Treasury, "General Explanations of the Administration's Fiscal Year 2024 Revenue Proposals," March 2023, https://home.treasury.gov/system/files/131/General-Explanations-FY2024.pdf. See also White House, "Budget of the United States Fiscal Year 2024," March 2023, https://www.whitehouse.gov/wp-content/uploads/2023/03/budget_fy2024.pdf.

17 Charles T. Dillon, "Oil Industry Tax Benefits Helping the Environment," University of Baltimore Journal of Environmental Law 7 (1999-2000), https://heinonline.org/HOL/LandingPage?handle=hein.journals/ubenv7&div=8&id=&page=.

18 Sophie Quinton, "Why 'Orphan' Oil and Gas Wells Are a Growing Problem for States," Stateline, Pew, July 9, 2018, https://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2018/07/09/why-orphan-oil-and-gas-wells-are-a-growing-problem-for-states.

19 Molly F. Sherlock and Phillip Brown, "Low Oil Prices May Trigger Certain Tax Benefits, But Not Others," Congressional Research Service, May 11, 2020, https://crsreports.congress.gov/product/pdf/IN/IN11381.

20 KPMG, "Tax Provisions in Biden Administration's FY22 Budget Proposals: Energy and Natural Resources," June 18, 2021, https://assets.kpmg/content/dam/kpmg/us/pdf/2021/06/tnf-biden-fy-2022-budget-energy-june18-2021.pdf.

Analysis

Superfund taxes are designed to get companies that engage in environmentally risky behavior to internalize the potential costs of the activities in case a spill occurs and needs to be cleaned up. As such, repealing the excise tax exemption for certain kinds of crude oil production makes sense.[21] However, one concern with Superfund taxes is that they tend to carry high compliance and administrative costs without generating substantial revenue.[22]

The other provisions here are consistent with the principles of saving-consumption neutral taxation. The U.S. tax code has some characteristics of savings-consumption neutral taxation and some characteristics of pure income taxation. As an example, under savings-consumption neutral taxation, the returns to saving, including capital gains, would be fully tax-exempt, while under a pure income tax system, capital gains would be taxed at ordinary income tax rates. The U.S. tax system lands somewhere in the middle, as short-term capital gains are taxed as ordinary income, while long-term capital gains receive a reduced tax rate.[23]

The existing tax treatment of royalties is consistent with this middle-way approach that applies across the economy. Exempting publicly traded fossil fuel partnerships (and other partnerships) from the corporate income tax makes sense, as business income in general should only be subject to one layer of taxation.[24]

Category 5: International Provisions ($66.1 billion)

In addition to provisions related to domestic oil production, the Biden plan also includes proposals to raise tax on foreign fossil fuel production by modifying the rules regarding foreign oil and gas extraction income (FOGEI), foreign oil related income (FORI), and dual capacity taxpayers.

Table 5. Proposed Changes to the Tax Treatment of Foreign Fossil Fuel Income in the Biden Budget

Tax Provision	10-Year Budget Cost	Description of Current Law and Biden Administration Proposal
Rules for Foreign Oil and Gas Extraction Income (FOGEI) and Foreign Oil Related Income (FORI)	$2.979 billion	The Tax Cuts and Jobs Act introduced new rules for Global Intangible Low-Taxed Income (GILTI), taxing income earned abroad from intangible assets such as intellectual property. However, GILTI does not target specific asset classes, instead taxing earnings above a 10 percent return on tangible assets, assuming that such "supernormal" returns are derived from intangibles. FOGEI is currently exempt from GILTI. The Biden proposal would subject FOGEI to GILTI rules and expand the definition of FOGEI and FORI to include income from shale oil and tar sands.
Rules for Dual Capacity Taxpayers	$63.144 billion	Dual capacity taxpayers are taxpayers who pay some form of levy to a foreign government in exchange for a particular economic benefit, such as payment in exchange for drilling rights in publicly held land. Under current law, companies cannot claim that levy as a tax paid for purposes of determining foreign tax credits, although some can be partially claimed as equivalent to taxation. The Biden proposal would tighten these rules.

Sources: United States Department of the Treasury, "General Explanations of the Administration's Fiscal Year 2024 Revenue Proposals," March 2023, https://home.treasury.gov/system/files/131/General-Explanations-FY2024.pdf; Cody Kallen, "Options for Reforming the Taxation of U.S. Multinationals," Tax Foundation, Aug. 12, 2021, https://www.taxfoundation.org/us-multinational-tax-reform-options-gilti/; and Daniel Bunn, U.S. Cross-border Tax Reform and the Cautionary Tale of GILTI," Tax Foundation, Feb. 17, 2021, https://www.taxfoundation.org/gilti-us-cross-border-tax-reform/.

21 Thomas A. Barthold, "Issues in the Design of Environmental Excise Taxes," Journal of Economic Perspectives 8:1 (Winter 1994), https://pubs.aeaweb.org/doi/pdf/10.1257/jep.8.1.133.

22 Don Fullerton, "Why Have Separate Environmental Taxes?" Tax Policy and the Economy 10 (January 1996), https://www.nber.org/system/files/chapters/c10898/c10898.pdf.

23 Erica York, "An Overview of Capital Gains Taxes," Tax Foundation, Apr. 16, 2019, https://taxfoundation.org/research/all/federal/capital-gains-taxes/.

24 William McBride, Erica York, and Garrett Watson, "Taxing Distributed Profits Makes Business Taxation Simple and Efficient," Tax Foundation, Mar. 1, 2023, https://taxfoundation.org/blog/distributed-profits-tax-us-businesses/.

Analysis

It is not clear what principle is guiding the international tax changes, beyond merely raising tax on U.S. multinational oil and gas companies. GILTI is designed to tax income from assets that are intangible and highly mobile, like intellectual property, which is subject to low rates of foreign tax. Oil and gas production is the opposite: it's tangible, unlike a patent or copyright; oil and gas reserves are stuck in the ground, as far from mobile as one gets, and the oil and gas industry is subject to relatively high rates of foreign tax. As such, foreign oil and gas income should be exempt from GILTI.

Regarding dual capacity, there is no demonstrated need to tighten the rules, as current regulations require taxpayers to prove the extent to which foreign levies are in fact income taxes rather than payments in exchange for economic benefits. The proposal would artificially limit foreign tax credits claimed, which would result in double taxation (the income would be taxed first by foreign governments and then by the U.S. government).

Raising tax on the foreign income of U.S. multinational oil and gas companies would mainly serve to disadvantage U.S. companies in accessing and producing oil and gas from foreign sources, allowing foreign-based producers to fill the void since they are not subject to U.S. tax. Several large multinational oil and gas companies are based outside the U.S., mainly in the UK and Europe, Saudi Arabia, China, and Russia. To the extent foreign-based companies have access to the same or similar technology and technical know-how as U.S. companies, raising tax on U.S. companies' foreign income would over time result in American companies ceding control of larger and larger shares of worldwide production to foreign competitors like Gazprom and CNOOC. Studies indicate that the reduced foreign footprint of U.S. companies, and corresponding reduced foreign investment, would entail a reduction in domestic operations for those companies, i.e., less domestic investment and employee compensation.[25]

Taxes Paid by the Industry

Because oil and gas deposits are immovable, foreign countries already tax oil and gas companies heavily.[26] For example, in many countries the tax rate that applies to oil and gas income is above the normal corporate tax rate and above 50 percent in some cases.[27] The Tax Foundation Multinational Tax Model, based on IRS and other government data, indicates U.S. multinational companies engaged in foreign oil and gas extraction and coal mining pay the highest average foreign tax rate of any industry, at 34.6 percent—a rate that is nearly three times the average foreign tax rate across all industries (12.5 percent).[28] By subjecting foreign oil and gas income to GILTI, the Biden proposals would increase the total average tax rate on the foreign fossil fuel income of U.S. multinationals to 36.7 percent, which would put them at further disadvantage to Chinese and Russian state-owned energy companies.

25 See, for example, Mihir A. Desai, c. Fritz Foley, and James R. Hines, "Domestic Effects of the Foreign Activities of US Multinationals," American Economic Journal: Economic Policy 1:1 (February 2009):181-203, https://www.aeaweb.org/articles?id=10.1257/pol.1.1.181.
26 Scott A. Hodge, "Oil Industry Taxes: A Cash Cow for Government," Tax Foundation, July 2010, https://files.taxfoundation.org/legacy/docs/sr183.pdf
27 See, for instance, PwC, "Worldwide Tax Summaries," https://taxsummaries.pwc.com/.
28 Cody Kallen, "Options for Reforming the Taxation of U.S. Multinationals," Tax Foundation, Aug. 12, 2021, https://www.taxfoundation.org/us-multinational-tax-reform-options-gilti/.

The fossil fuel industry also pays relatively high rates of tax to the U.S. federal government and state and local governments. For example, the latest available data from the IRS indicates that in 2018 the oil and gas extraction industry paid $160 million in federal corporate income tax, or 19.3 percent of net income, compared to 10.6 percent on average for all industries (companies normally pay an effective tax rate that is lower than the statutory rate due to loss carryovers and other features).[29] The same IRS data indicates the oil and gas extraction industry paid $7.2 billion in state and local taxes and licenses, or 89.7 percent of net income (excluding those expenses), compared to 16.5 percent on average for all industries.

Environmental Impact

The impact of the domestic changes on oil and gas prices and consumption is expected to be quite small, partly because the tax changes are small, representing about 1 percent of industry revenues.[30] Furthermore, oil and gas prices are determined in a world market in which U.S. production accounts for a small share—the U.S. produces about 20 to 25 percent of world oil and gas production.[31]

A study from economist Gilbert Metcalf considered the impact of repealing three major provisions: the domestic manufacturing deduction (since repealed as part of the Tax Cuts and Jobs Act), expensing for intangible drilling costs, and percentage depletion. He found this would have a negligible effect on greenhouse gas emissions and global oil markets, with global oil prices rising by less than 1 percent. Domestic markets would respond more, with domestic oil and gas production expected to fall by 4 to5 percent, and domestic natural gas prices would rise between 7 and 10 percent.[32]

As mentioned above, raising taxes on the foreign production of U.S. multinationals mainly disadvantages U.S. companies, allowing foreign companies to exploit the same foreign fossil fuel reserves. As such, it would have little impact on world production, prices, or consumption.

Better Alternatives

A more effective means of protecting the environment, controlling greenhouse gases, and funding infrastructure investment, which would also be less harmful to American producers relative to foreign ones, would be to tax consumption, or the demand for fossil fuels. This could be done, for instance, through an increase in the gas tax, a tax on vehicle miles traveled (VMT), or a carbon tax with a border adjustment.[33]

As an example, British Columbia's carbon tax reduced emissions by 5 to 15 percent after four years, with a negligible impact on economic performance.[34] Northern European countries such as Norway, Finland,

29 IRS Statistics of Income, "Table 5.3 Returns of Active Corporations, other than Forms 1120S, 1120-REIT, and 1120-RIC," https://www.irs.gov/statistics/soi-tax-stats-corporation-complete-report. The data include only C corporations subject to corporate income tax, as opposed to S corporations and other pass-through entities that are subject to individual income tax. While the 2019 edition of this data set has been published, the data for oil and gas extraction has been deleted by the IRS to avoid specific disclosures.
30 Maura Allaire and Stephen Brown, "Eliminating Subsidies for Fossil Fuel Production: Implications for U.S. Oil and Natural Gas Markets," Resources for the Future, December 2009, https://media.rff.org/documents/RFF-IB-09-10.pdf.
31 U.S. Energy Information Administration, "What Countries Are the Top Producers and Consumers of Oil?" https://www.eia.gov/tools/faqs/faq.php?id=709&t=6; Global Energy Statistical Yearbook 2021, "Natural Gas Production," https://yearbook.enerdata.net/natural-gas/world-natural-gas-production-statistics.html.
32 Gilbert E. Metcalf, "The Impact of Removing Tax Preferences for Oil and Natural Gas Production: Measuring Tax Subsidies by an Equivalent Price Impact Approach," Journal of the Association of Environmental and Resource Economists 5:1 (January 2018), https://www.journals.uchicago.edu/doi/abs/10.1086/693367.
33 Ulrik Boesen, "Who Will Pay for the Roads," Tax Foundation, Aug. 25, 2020, https://www.taxfoundation.org/road-funding-vehicle-miles-traveled-tax/.
34 Brian Murray and Nicholas Rivers, "British Columbia's Revenue-Neutral Carbon Tax: A Review of the Latest 'Grand Experiment' in Environmental Policy," Energy Policy 86 (November 2015), https://www.sciencedirect.com/science/article/abs/pii/S0301421515300550.

Sweden, Denmark, and the Netherlands—some of the first places to adopt carbon taxes—saw significant declines in emissions as well.[35]

In addition, these policies would raise considerable revenue for the federal government with minimal damage to the economy. For example, we estimate increasing the federal gas tax by 35 cents per gallon and adjusting it for inflation would raise about $758 billion over 10 years for the federal government (conventionally estimated), reducing gross domestic product (GDP) by 0.1 percent over the long run and eliminating 103,000 jobs.[36] We estimate a carbon tax of $25 per metric ton of carbon would boost federal revenue by about $1 trillion over 10 years, reducing GDP by 0.2 percent over the long run and eliminating 149,000 jobs.[37]

Conclusion

Policymakers should aim to treat the fossil fuel industry as fairly and as simply as possible, accounting where necessary for particular features of the industry. Full deductions for costs, such as intangible drilling costs, are non-distortionary and should remain in place. On the other hand, tax credits and other provisions that provide tax benefits beyond deductions for input costs deserve scrutiny and may be worth eliminating in exchange for a lower general tax rate for all industries. Regarding foreign income, the GILTI regime should not apply to the foreign fossil fuel income of U.S. multinationals; the income is neither intangible, nor mobile, nor low-taxed—denial of foreign tax credits would constitute double taxation.

If the Biden administration aims to protect the environment and reduce carbon emissions, taxing consumption of fossil fuels is clearly more beneficial than taxing production. It is more environmentally effective and raises considerable revenue for the federal government at minimal cost to the economy.

35 Assaad Ghazouani, Wanjun Xia, Medhi Ben Jebli, and Umer Shahzad, "Exploring the Role of Carbon Taxation Policies on CO2 Emissions: Contextual Evidence from Tax Implementation and Non-Implementation European Countries," Sustainability 12:20 (2020), https://econpapers.repec.org/article/gamjsusta/v_3a12_3ay_3a2020_3ai_3a20_3ap_3a8680-_3ad_3a431504.htm.

36 Tax Foundation, "Option 48: Increase the Gas Tax by 35 Cents Per Gallon and Inflation Adjust Going Forward," in Options for Reforming America's Tax Code 2.0 (Washington, D.C.: Tax Foundation): April 2021, https://taxfoundation.org/tax-reform-options/?option=48.

37 Tax Foundation, "Option 50: Institute a Carbon Tax," in Options for Reforming America's Tax Code 2.0 (Washington, D.C.: Tax Foundation): April 2021, https://www.taxfoundation.org/tax-reform-options/?option=50; see also Alex Muresianu and Huaqun Li, "Carbon Taxes and the Future of Green Tax Reform," Tax Foundation, Jun. 21, 2022, https://taxfoundation.org/research/all/federal/carbon-taxes-green-tax-reforms/.

Appendix A: Comparing Cost Depletion, Percentage Depletion, and Expensing

It is useful to compare the processes for calculating cost depletion, percentage depletion, and expensing to see how they work, depending on the circumstance.

Consider a small oil producer that purchases the rights to oil reserves below a new well for $100,000. Let's say there are 10,000 barrels of oil in total below the well, and over the next five years, they will produce 2,000 barrels of oil per year.
Under Scenario 1, the price of a barrel of crude oil rises over time, from $50 per barrel in year 1 to $100 per barrel in year 5. If the well produces the same amount every year, that means gross income rises, and the deduction values would rise.

Table 6. Scenario A, Rising Oil Prices

Year	Oil Sold (Gallons)	Price	Gross Income
1	2,000	$50.00	$100,000
2	2,000	$60.00	$120,000
3	2,000	$70.00	$140,000
4	2,000	$95.00	$190,000
5	2,000	$100.00	$200,000

Table 7. Scenario B, Flat Oil Prices

Year	Oil Sold (Gallons)	Price	Gross Income
1	2,000	$50.00	$100,000
2	2,000	$50.00	$100,000
3	2,000	$50.00	$100,000
4	2,000	$50.00	$100,000
5	2,000	$50.00	$100,000

Table 8. Deductions Under Expensing (Both Scenarios)

Year	Deduction	Present Value of Deduction
1	$100,000	$100,000
2	$0	$0
3	$0	$0
4	$0	$0
5	$0	$0

Table 9. Deductions Calculated Under Cost Depletion (Both Scenarios)

Year	Deduction	Present Value of Deduction
1	$20,000	$20,000
2	$20,000	$19,047.62
3	$20,000	$18,140.59
4	$20,000	$17,276.75
5	$20,000	$16,454.05

Table 10. Percentage Depletion Calculations by Year (Scenario 1)

Year	Deduction	Present Value of Deduction
1	$15,000	$15,000
2	$18,000	$17,142.86
3	$21,000	$19,047.62
4	$28,500	$24,619.37
5	$30,000	$24,681.07

Table 11. Excess over Cost Depletion (Scenario 1)

Year	Deduction	Present Value of Deduction
1	$20,000	$20,000
2	$20,000	$19,047.62
3	$21,000	$19,047.62
4	$28,500	$24,619.37
5	$30,000	$24,681.07
	Total Present Value of Deductions	**$107,395.68**

So, in this example, excess over cost depletion allows the company to deduct more than the cost of acquiring the rights to the oil reserves. However, under a different scenario with steady prices, percentage depletion adds nothing for the company.

Under this scenario, percentage depletion never comes into play, and the company ends up being able to deduct less than the real cost of purchasing the reserves. These scenarios end up strengthening the argument for expensing as a replacement for both systems: matching the real value of the cost incurred to the amount deducted.