

Reality Check

Raising Revenue for Structural Reform and Large-Scale
Public Investment

**Report by Lenore Palladino, Devin Duffy, and
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Executive Summary

Our debate about what is possible in U.S. policy is severely constrained by the assumption that our public resources are scarce and already overspent, meaning we are not capable of the large-scale social investments needed to provide every American with income security and a dignified life. This assumption is misguided and false.

Implementing tax policies that would curb the disproportionate concentration of wealth in the corporate and financial sectors could simultaneously create the capacity for real public investment and promote economic growth. Even if the policies we analyze for their revenue potential raised no revenue, they would still be worthwhile reforms to create a healthier economy with proper incentives.

We analyze in detail the following tax policy reforms and gather a range of government and academic estimates of their potential revenue. It is important to note these revenue estimates cannot necessarily be added to one total sum, as some are mutually exclusive and all are subject to interacting effects if implemented jointly.

Financial transaction tax:

- The FTT would curb speculative trading, tame the outsized growth of the financial sector, and reduce income inequality.
- The revenue potential: \$35.2-300 billion annually.

Taxing bank leverage:

- Taxing the amount of debt banks use to finance transactions would reduce systemic risk in the banking sector to prevent future financial crises.
- The revenue potential: \$9.8-11 billion annually.

Reducing the corporate debt bias:

- The current incentive to fund business operations through debt rather than equity decreases those entities' ability to sustainably absorb losses.
- The revenue potential: up to \$81.5 billion annually.

Taxing capital gains as ordinary income:

- Eliminating preferential treatment of capital gains would reduce incentives for rent-seeking, lessen income inequality, and bring us closer to a rate of taxation optimal for economic growth.
- The revenue potential: \$84.9-135.5 billion annually.

Reforming carried interest:

- Eliminating the special tax treatment for partners in private equity and hedge funds would properly classify labor income as such.
- The revenue potential: \$2-8 billion annually.

Fair corporate taxation:

- Eliminating loopholes that distort where businesses make their revenue (and removing subsidies for activities that harm the environment) will align corporation's productive activity and profits.
- The revenue potential: \$147.5-252.9 billion annually.

Reducing the passthrough entity bias:

- Allowing too many businesses to be classified as passthroughs instead of corporations opens an arbitrary preferential tax treatment at the entity level, which has been a driving force for the dramatic rise in the income share of the top 1%.
- The revenue potential: up to \$31 billion annually.

It is unlikely these reforms can pass in today's political climate. However, the fact remains that America has enormous wealth currently captured by a small minority. By realigning the incentive structures built into our tax code, we can promote productive economic behavior while raising billions of dollars.



Introduction

At the core of many debates about instituting progressive social and economic policy lies the question: “How will we pay for it?” Our concept of what is possible within U.S. policy is consistently rooted in the assumption that our public resources are scarce and already overspent. These ideas about limited resources are not inevitable; they have been baked into our policy discourse since the 1970s, when economist Arthur Okun argued that reducing inequality necessitated reductions in economic efficiency as well. Most recently, such assumptions have been lobbed against a proposal for a “base” or “basic income.” Critics have used similar attacks against universal health care, the jobs guarantee, universal child care, and other large social programs. Economic evidence since the 1970s has undermined Okun’s central thesis, suggesting several policy areas where we can tackle economic inequality without sacrificing economic growth. We aim to further rebut those myths by showing that there is a significant amount of funds available in the economy that are currently rewarding unproductive behavior rather than the public good.

In this paper, we identify a series of corporate and financial taxes that could raise significant public funds while also supporting more productive economic behavior. However, many potential revenue streams exist beyond those outlined in this paper. Taxes on negative externalities—for example, a carbon tax—can be both revenue raising and growth enhancing. Increased fees for government-sanctioned monopolies—for example, through patents—could be both revenue raising and growth enhancing. Other funding options for large-scale social investment exist beyond our scope and should be explored.

We focus in this paper on two specific sets of revenue raisers: corporate and financial taxes. Our aim is to expand the parameters of the debate about funding social investments by grounding these conversations in a realistic projection of some of the revenue that could be raised to pay for public needs. We will illustrate how such policies do not pose a false trade-off between equity and efficiency and, in fact, can create a healthier, more productive economic system.

Following up on our past reports—*Rewriting the Rules* and *Untamed: How to Check Corporate, Financial, and Monopoly Power*—we aim to show that by rewriting the tax code to change the behavior of America’s largest economic entities and wealthiest individuals, we can raise crucial public revenue while creating broadly shared prosperity. The assumption that taxes are necessary for public spending but will curb economic growth remains widely held and dominates current tax policy debates. We argue instead that reforming corporate and financial taxation is essential to economic growth, because pro-growth policy requires curbing the disproportionate concentration of wealth at the top while creating real capacity for public investment.

To that end, we analyze tax policies that would curb the inequality that is written into today’s tax code. These policies represent major losses in public revenue from allowing corporations and wealthy individuals to capture an outsize portion of economic gains. This behavior—which we term ‘rent-seeking’ⁱ—is not new, but policies driven by neoliberal economicsⁱⁱ in the past 35 years have escalated

ⁱ Rent-seeking: The practice of obtaining wealth not through economically valuable activity but by extracting it from others, e.g., a monopoly overcharging for its products.

ⁱⁱ Neoliberalism: an economic theory that holds that the best way to advance human well-being is to encourage individual entrepreneurial freedom and create institutions that assert strong private property rights, free markets, and free trade. Neoliberalism is fundamentally opposed to government regulation and favors privatization, or the withdrawal of the state in providing public services.



disparities. We hope this will ground public policy conversations in a realistic projection of the amount of revenue that could be raised to pay for public needs and ensure that the policies used to raise such revenue reduce market powerⁱⁱⁱ and restore us to a more socially productive economic system.

The policies that we look at include: instituting a financial transaction tax, taxing excessive bank leverage^{iv}, reducing the bias for corporate leverage generally by lowering the interest deduction on debt, reforming capital gains and carried interest tax policy for wealthy individuals, instituting fair corporate taxation through formulary apportionment and closing tax loopholes, and reducing the bias for pass-through business entities.

We find that these policies could raise a significant amount of revenue in the range of tens to hundreds of billions of dollars per year. The policies we recommend are crucial for reducing the extraction of wealth by big corporations and ensuring sustainable and inclusive economic growth that works for all Americans. In other words, gains from these policies would go far beyond their revenue-raising potential.

It is important to note that these revenue estimates cannot be added toward one total sum. These options present an array of potential reforms, some of which are mutually exclusive and all of which are subject to interacting effects should they be implemented jointly. Instead, we aim to demonstrate the sheer number of options for raising much needed revenue for public investment while restoring a healthier economic system.

Such revenue could be used for a wide range of American needs, from basic public goods like education and infrastructure investment to innovative public policies like instituting a universal basic income, a federal job guarantee, or universal child care. Note that while these tax policies do raise a significant amount of revenue, they are not the only financing mechanisms available for funding large-scale social programs. Our aim is to demonstrate that there are many untapped sources of revenue for large-scale social programs that can reduce poverty and inequality, of which this paper covers only a small portion.

These revenue estimates are not dynamic estimates. We are not considering how these policies might interact with each other, and we are not conducting a macroeconomic analysis of the impact of a given tax. Our estimates are drawn from government and scholarly work, and, in some cases, we have updated previous work with the most recent data available. It is our hope that by presenting the scope and scale of revenue that represents a fair contribution by our nation's wealthiest corporations and individuals, we might inspire further efforts to bring such policies to fruition.

ⁱⁱⁱ Market power: The ability to set both the terms of market exchange and the rules that govern them.

^{iv} Leverage: the amount of debt used to finance bank activities and assets.



SUMMARY TABLE OF REVENUE POTENTIAL

	Low-end Annual Estimate (\$billions)	High-end Annual Estimate (\$billions)
Financial Transaction Taxes	35.2	300
Taxing Bank Leverage	9.8	11
Reducing the Corporate Debt Bias	-	81.5
Reforming Capital Gains Taxes	84.9	135.5
Reforming Carried Interest	2	8
Fair Corporate Taxation	147.5	252.9
Reducing the Pass-through Entity Bias	-	31

Ideas for Cash Transfers

Recent proposals for a universal income are just the latest example of policies that push up against Washington's entrenched belief that there is no money to spend on public programs. This paper argues there is plenty of room to reallocate capital to more equitable and productive uses.

Growing advocacy efforts suggest a range of policies that could expand cash transfers to alleviate economic insecurity. These proposals vary in format and design as well as annual cost. It is useful to understand the breadth of proposals to provide a sense of scale of spending programs as we focus on revenue throughout this paper. Many advocates across the political spectrum have pushed for a \$250 monthly child allowance distributed universally, which would require about \$190 billion in annual revenue and reduce child poverty by 40 percent (Shaefer et al 2017). Others push for an expanded Earned Income Tax Credit for all low and middle-income workers that would be distributed in \$500 monthly installments rather than an annual lump sum. Advocates for closing the racial and gender wealth gap have proposed Child Savings Accounts (tiered according to family wealth position) seeded by an initial cash transfer that grows over time to provide young adults with savings to jump start economic mobility. This would cost anywhere from \$60-90 billion annually (Hamilton and Darity 2010). On the most ambitious end of this spectrum is a universal basic income, usually estimated to be \$1,000 per month, which would be distributed to all Americans and would cost approximately \$3 trillion annually. Advocates have proposed building up to this program incrementally through proposals like the above.

These cash transfer programs are some potential policy pathways to alleviating poverty and reducing inequality if we could abandon the false notion that our public resources are already overspent. Returns to financial speculation or tax arbitrage are just some of the many untapped revenue streams that could shift cash to the pockets of average Americans. There are dozens of innovative financing models to serve as a valuable reminder that Americans need not limit the debate about the dignified life we all deserve.

Taming the Financial Sector

While the financial sector is critical to the functioning of the broader economy, today it extracts and concentrates wealth through the process of “financialization.” Financialization refers to “the growth of the financial sector, its increased power over the real economy, the explosion in the power of wealth, and the reduction of all of society to the realm of finance” (Konczal and Abernathy 2015). The relationship between finance and the “real”—i.e., goods- and services-producing—economy has inverted, a shift that has produced a number of serious consequences.

Better incentives within the industry could reduce systemic risk and rebalance financial activity that would serve the productive sectors of the economy. Dodd-Frank, the landmark 2010 financial reform law, and ongoing supervisory and regulatory reform are necessary, but they are not sufficient. Tax policy can play an important role in changing behavior in the financial sector. Currently, neoliberal rules have incentivized excessive speculative short-term trading, the privileging of debt over equity, and excess reserves and leverage in the banking sector. We can restore the balance of the financial sector by reducing excessive leverage and incentivizing productive trading by reducing opportunities for speculation. Only with the proper rules in place—which would also raise much needed revenue—can we ensure that we have a healthy and productive financial sector.

In this section, we will outline two policies that could be enacted in order to accomplish these structural reforms and raise substantial revenues: instituting a financial transaction tax and taxing bank leverage directly. In the next section, we will explore an additional policy to reduce the bias for debt in both financial and nonfinancial firms.

Financial Transaction Taxes

The Benefits of the Financial Transaction Tax

The United States could raise billions of dollars per year by enacting a financial transaction tax (FTT), though the range of potential revenue estimates is broad, depending on the construction of the tax and assumptions about its impact on the trading of financial assets. An FTT would place a small tax on specific financial transactions, including secondary trades of stocks, bonds, and derivatives. Typically, the proposed tax is a fraction of a percent—from 1 to 50 basis points^v of the total value of the trade—imposed on the buyer, seller, or both parties. This relatively minor tax has high revenue potential because of the sheer amount of financial asset trading.

Evidence from successful FTTs in other countries as well as a body of economic literature and analysis suggests that a financial transaction tax could help produce a more efficient and productive economy in three important ways: by curbing speculative trading, taming the outsized growth of the financial sector, and reducing income inequality.

One of the earliest advocates of the FTT was John Maynard Keynes, who wrote in 1936 of the value of “mitigating the predominance of speculation over enterprise in the United States” (Keynes 1936). Keynes argued that the type of speculative trading that drove the Great Depression could be disincentivized by such a tax and that unnecessary market volatility could be reduced. Keynes wanted to

^v Basis points is a financial term used to express one one-hundredth of 1%; 1 basis point = .01% = .0001



increase the existing fee on stock transactions, which was 2 basis points from 1914 to 1966. Burman et al. (2015) observe that the tax may have been too low to raise significant revenue or adequately deter speculation. Stiglitz (1989) found that a small securities transaction tax “may well enable [capital] to serve its essential functions more effectively.” He writes:

“Keynes argued quite forcefully that such speculative trading was not only not socially productive but actually interfered with the efficient functioning of the economy. Firms were induced to pay excessive attention to short-term returns rather than long-term concerns.”

Stiglitz argues that the “turnover tax” would primarily affect short-term speculators, whose financial activity neither created value nor benefited capital markets.

While opponents of an FTT characterize the multibillion-dollar tax proposal as “unrealistic,” (Adams 2016) enacting an FTT would actually bring the United States in line with many of the world’s largest economies. The primary objection to an FTT is that it would reduce the volume of trading and liquidity in the marketplace. But today, over 30 countries have a financial transaction tax, including China, India, the United Kingdom, and Australia (CEPR 2013), all of whom have robust capital markets. The European Union is in negotiations to institute an FTT with 10 member countries requesting participation, including Germany, Greece, and France. The U.K. has a tax of 50 basis points on stock trades, which raised £5.37 billion in 2008, equivalent to .3% of the country’s GDP (European Commission 2011, p. 930). Switzerland has a tax of 15 basis points on domestic securities and 30 basis points on foreign securities, which raised CHF 1.9 billion in 2007, equivalent to .37% of their GDP (European Commission 2011, p. 926). The lesson here is that an FTT is feasible and can generate significant revenue without making markets unworkable. In the U.S., the Securities and Exchange Commission is partially funded by a tax of .42 basis points on futures transactions and .184 basis points on securities sales (Burman et al. 2015), which raises approximately \$500 million annually (Baker 2016).

An FTT would have a particular impact on high-frequency trading (HFT). High-frequency traders use sophisticated computer algorithms to execute trades in milliseconds or microseconds. While the profit from each trade is small, the speed and volume with which high-frequency traders can make trades would make HFT highly lucrative. Some academics and economists have defended the practice of HFT, arguing that less aggressive high-frequency traders can provide liquidity and aid with price discovery (SEC, 2014). There are, however, high-frequency traders who engage in rent-seeking, in what has been called “opportunistic trading” (Hagströmer and Norden, 2013) or “aggressive strategies” (Burman et al. 2015). In addition to rent-seeking, HFT can pose a systemic risk to the safety of our financial system. Because high-frequency traders make a large volume of automatized trades every day, there is a legitimate risk of a few erratic traders affecting the entire market. In the Treasury Department’s Office of Financial Research’s 2013 Annual Report, the OFR cited the “operational risk from automated trading systems, including high-frequency trading,” as a threat to the safety and soundness of the financial system that required monitoring (Shorter and Miller 2014). A properly designed FTT would render many forms of risky HFT strategies unprofitable.

Baker (2016) argues that the financial sector in America has grown too large relative to the real economy, and an FTT would make the economy function more efficiently by downsizing the industry as a whole. He cites the growth of the financial industry from .44% of GDP in 1970 to 2.1% of GDP in 2015. He argues generally that a considerable amount of trades made on Wall Street do not contribute value to the real economy. Baker’s findings about our financial industry are supported by a 2012 Bank for International Settlements study (Cecchetti and Kharroub) and a 2015 International Monetary Fund study (Sahay et al.),



which show evidence for a bell-shaped relationship between the size of a country’s financial sector and that country’s productive economic growth. Epstein and Montecino (2016) estimate that through rent-seeking behavior, a misallocation of capital, and the costs of the 2008 financial crisis, the American financial sector has cost taxpayers and businesses up to \$22.7 trillion from 1990-2023. The report details a link between the excess costs of finance and the outsize growth of Wall Street since the 1980s. A growing financial sector is good for growth—but only to a point, as the financial sector can become a drag on growth by subverting resources and capital away from productive activity.

An FTT would reduce economic inequality because it is a highly progressive tax. The costs of rising inequality have been well-documented; unchecked inequality and rent-seeking behavior from firms will hamper a country’s overall economic performance. (See, for example, OECD 2014; Ferreira 1999; Stiglitz 2016.) While FTT critics have attempted to characterize a transaction tax as a drag on pensions, the evidence shows that pension brokers do not engage in nearly as much trading as high-frequency traders do on average, and costs to pension holders would be negligible (Baker 2017). Burman et al. (2015) of the Tax Policy Center estimate that “75% of the burden falls on taxpayers in the highest-income quintile, and 40% falls on the top 1%.” Bivens and Blair (2016) of the Economic Policy Institute note that there is “little controversy” over the distribution of the tax as FTTs are “universally thought to be extraordinarily progressive revenue increases.” If the substantial revenue raised from an FTT were progressively distributed, the tax could help curb the rising inequality.

The Revenue Potential of a Financial Transaction Tax

Revenue raised by an FTT is determined by the following factors: which trades and financial assets are taxed (stocks, bonds, swaps, futures, etc.), the tax rate on financial transactions, and the elasticity of demand for trading with respect to the adjusted transaction costs after the tax is imposed. Estimates of how much an FTT could raise differ drastically—from roughly \$30 billion to \$300 billion annually depending on how the design of the tax impacts its revenue potential—as these differing estimates are not all measuring the same policy design. (See Table 1 for specific estimates.) Differing revenue projections of the same design generally come down to differences in the elasticities of trading volume and estimates of total trading in the financial sector in present and future years.

Plan	Design	Annual Revenue (\$billions)	Source
Baker et al.	50 BP on stocks, 1 BP on bonds, swaps, and futures	176.9	Baker et al., 2015
Harkin-DeFazio	3 BP on stocks, bonds, debt obligations, and derivatives	35.2	JCT (Office of Peter DeFazio, 2011)
Sanders	50 BP on stocks, 10 BP on bonds, and .5 BP on derivatives	64.3	Tax Policy Center (Sammartino et al. 2016)
Sanders	50 BP on stocks, 10 BP on bonds, and .5 BP on derivatives	300	Pollin et. al 2016
Deficit Reduction via CBO 2016	10 BP on stocks, bonds, derivatives, and other debt obligations.	70.7	JCT (CBO, 2016)

Former Senator Tom Harkin (IA) and Representative Peter DeFazio (OR) introduced legislation for an FTT in 2011. On the lower end of the international and historical spectrum of FTTs, the Harkin-DeFazio proposal calls for a tax of 3 basis points on stocks, bonds, debt obligations, and derivatives. The Joint Committee on Taxation estimated that this tax would raise \$352 billion over 10 years (Office of Peter DeFazio 2011).

Senator Bernie Sanders (VT) and Representative Keith Ellison (MN) introduced a proposal that would tax stocks at 50 basis points, bonds at 10 basis points, and derivatives at .5 basis points. The Tax Policy Center analyzed the Sanders-Ellison plan and found the tax of 50 basis points on stocks to be “inefficiently high,” actually raising less revenue than an optimally designed FTT. The TPC projection assumes a high elasticity of -1.5, and uses figures on total trading activity in the U.S. financial sector from the CBO. With these assumptions, the TPC concluded the Sanders-Ellison FTT would raise \$1,285.1 billion over 20 years, an average of 64.3 billion a year (Sammartino et al. 2016).

However, Pollin et al. (2016) find that this same proposal would raise approximately \$3 trillion over 10 years, an average of 300 billion a year. One difference in the two models is the elasticity of trade volume with respect to the tax. Pollin et al. argue for an elasticity of -1.25, reasoning that a more comprehensive FTT results in lower elasticities, as it presents fewer opportunities for tax avoidance. A second difference is the differing estimates of total trading activity in the U.S. financial sector. Pollin et al. use data from SIFMA stock exchange and bond market statistics as well as the Bank for International Settlement's database of derivative statistics to estimate total trading in the financial sector that is significantly higher than the TPC assumes: stock market trading at \$48 trillion, bond market trading at \$180 trillion, and derivative trading at \$5,200 trillion. With these figures, Pollin et al. assume a steep drop in total trading revenue—50%—which still yields \$300 billion annually. With the same level of trading in the financial sector, Pollin et al. write, the TPC's projection of the Sanders-Ellison plan “would entail a decline in trading levels by between about 80–90%.”

Baker et al. (2009) consider a plan similar but not identical to the Sanders-Ellison plan: a tax of 50 basis points on stock transactions and 1 basis point on bonds, swaps, and futures. Their estimate, also assuming a 50% drop in trading volume, falls roughly in the middle of the TPC's projection and Pollin et al.'s projection. Looking at the past year only, Baker et al. project that such a tax would have raised \$176.9 billion in 2008.

Finally, the Congressional Budget Office recently released an estimate of an FTT humbler in scale. In their annual report, “Options for Reducing the Deficit: 2017 to 2026,” the CBO put forth the idea of a tax of 10 basis points on stocks, bonds, derivatives, and other debt obligations. The JCT found this design would raise \$707.3 billion over 10 years, an average of \$70.73 billion annually (CBO, 2016, p. 209).

Year	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
Revenue (\$billions)	-53.6	13.3	62.9	85.0	92.6	95.9	98.7	101.3	104.1	106.9	707.3

The amount of revenue that an FTT could raise continues to be debated. However, the available precedents and evidence clearly suggest that a financial transaction tax could help the economy grow in a more equitable and stable manner while providing the government with tens or even hundreds of billions of dollars to spend on the common good.



Taxing Bank Leverage to Reduce Systemic Risk

The Benefits of Taxing Bank Leverage

Taxing excessive bank leverage would reduce systemic risk in the banking sector while progressively raising revenue.^{vi} Bank over-leverage was a proximate cause of the financial crisis and a focus of Dodd-Frank's regulatory regime, yet Dodd-Frank has not been able to fully reduce the risks from banks that are “too big to fail” (Johnson, 2011). Johnson argues that a tax on excessive bank leverage would serve as a useful complement to regulation that mandates a certain level of bank capital. Though the tax, or financial “fee,” that has been proposed is small and likely would only have a limited impact on bank activity, it would complement other policies that reduce excessive leverage and incentivize firms to replace debt with equity in order to increase the level of firms' ability to absorb losses.

The policy to impose a tax on bank leverage was supported by President Obama in multiple budget proposals and former Secretary of State Hillary Clinton in her campaign for president in 2016. Initially, President Obama proposed the fee to recoup losses from the extraordinary assistance given to the financial sector during the financial crisis, as well as to deter the buildup of future excess leverage for large banks (JCT. 2010), charging only banks with over \$50 billion in assets. Due to this threshold, an early estimate by the JCT found that the statutory tax incidence would be disproportionately borne by a small number of institutions—a 2010 analysis found that only 60 institutions would face the tax, although these banks represent a significant portion of the total banking market share. The tax was framed in 2016 by Secretary Clinton as a “risk fee” to be charged on the liabilities of banks with more than \$50 billion in assets, setting aside insured deposits, and systemically risky non-bank institutions. The tax rate ranges from 7 to 15 basis points on covered liabilities. This fee may incentivize banks to stay below the \$50 billion threshold, potentially adding to the reduction of systemic risk contagion.

Our estimates will focus on the tax as proposed for the formal banking sector, but it is important to note that taxing the banking sector could drive activity further into the shadow banking sector,^{vii} unless shadow banking is also taxed appropriately. In his “Minneapolis Plan to End Too Big to Fail,” Neel Kashkari, the President of the Minneapolis Federal Reserve Bank, proposed complementing bank capital requirements with a tax on shadow banking sector leverage to reduce the incentives for arbitrage and the further shifting of financial activity to the shadow banking sector (Kashkari, 2016). He proposed a two-tier tax on shadow bank leverage, based on whether the institution is deemed systemically important, to match the two-tier capital requirements in the banking sector (similarly based on whether the bank is considered systemically risky or not). Secretary Clinton's proposal also attempted to mitigate the concern of shifting activity by proposing that non-bank SIFIs (systemically important financial institutions)^{viii} would be included in the policy, but it did not elaborate on the mechanism for the tax.

The Minneapolis Plan proposes a 2.2% tax on systemically important shadow bank leverage and 1.2% on non-systemically risky shadow banks, and it follows the convention of only taxing entities with assets

^{vi} This policy is complementary to efforts to reduce the incentives for debt throughout the corporate sector, as explored in the next section.

^{vii} Shadow banking institutions include major nonbank financial institutions like nonbank-affiliated broker-dealers or insurance companies, as well as independent shadow banking institutions.

^{viii} SIFIs are non-bank financial institutions that the Financial Stability Oversight Council have designated as systemically important. “Under Section 113 of the Council is authorized to determine that a nonbank financial company's material financial distress—or the nature, scope, size, scale, concentration, interconnectedness, or mix of its activities—could pose a threat to U.S. financial stability” (FSOC, 2017).

that exceed \$50 billion. The stated purpose is to equalize funding costs between the banking and shadow banking sectors, using the Financial Stability Board’s identification of which institutions currently contribute to systemic risk in order to determine the appropriate tax rate. The Minneapolis Plan’s main proposal for the financial system’s future stability is to require higher equity in the banking system^{ix} rather than tax bank leverage, proposing that this is the most direct method for reducing both individual entity and systemic risk of failure within the banking system. Since it is not feasible to impose the same equity requirements in the shadow banking sector, the plan proposes the tax on shadow bank leverage in order to reduce migration. The proposal suggested an implementation timeline of five years and does not estimate the revenue potential of the tax.

The Revenue Potential of the Bank Leverage Tax

There are several estimates that look at the revenue potential of taxing bank leverage. All of them impose the tax only on institutions with over \$50 billion in assets, but they use different tax rates and behavioral assumptions to do so. An important area for future research is the potential for such a tax to reduce future systemic risk.

The Department of the Treasury conducted an analysis of President Obama’s FY 2017 proposal for the financial “fee.” The Treasury analysts used a rate of 7 basis points (.07%) for financial firms with over \$50 billion in consolidated assets, excluding insured liabilities. They found that the fee would raise \$111 billion over a 10-year period from 2017-2026, or an average of \$11 billion per year.

Year	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
Revenue (\$billions)	5.6	11	10.9	11.2	11.4	11.7	11.9	12.2	12.5	12.8	111

Source: General Explanations of the Administration’s Fiscal Year 2017 Revenue Proposal (Department of the Treasury 2016)

In their “Options for Reducing the Budget Deficit,” the Congressional Budget Office separately examined imposing a fee on financial institutions, using a 15 basis point (0.15%) fee on the liabilities of firms with assets over \$50 billion that are subject to the FDIC’s Orderly Liquidation Authority^x under Dodd-Frank. Under their proposal, the fee would be levied on the institution’s covered liabilities, which are defined as total liabilities less FDIC-insured liabilities. They estimated that this would generate \$98.3 billion from 2017 to 2026, or \$9.8 billion per year on average (CBO 2016, p. 207). This is an increase over a 2010 estimate for the 2011-2020 period, in which the CBO estimated that the same fee would raise \$90 billion over the decade. The CBO proposes segregating revenue from the tax into a fund that would be available to the FDIC when needed, rather than making the funds available for general revenue purposes.

Year	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
Revenue (\$billions)	5.2	10.4	10.4	10.4	10.4	10.3	10.4	10.4	10.3	10.3	98.3

Source: Congressional Budget Office 2016, p. 207, “Impose a Fee on Large Financial Institutions”

^{ix} The plan proposes requiring covered banks to issue common equity equal to 23.5 of risk-weighted assets. Since the plan has no direct revenue-raising impacts we do not analyze it in detail here.

^x Title II of Dodd-Frank created the OLA to be used when the Fed, the FDIC, and the Treasury declared a financial emergency to give the FDIC and the Fed a safe way to wind down failing financial firms. For more on OLA and Dodd-Frank, see Roosevelt’s forthcoming publication: “Doomed to Repeat: Debunking the Conservative Story About the Financial Crisis and Dodd-Frank” (Konczal et al 2017).

Taming Corporate Power

Corporations have been able to shift wealth to shareholders and retain historically high levels of profits due to distortionary tax policy. Below, we outline a set of policies that would equitably tax corporate profits and the gains that wealthy individuals capture from corporate activity, while realigning corporate incentives towards serving all stakeholders. The policies we look at include: reducing the bias for debt financing in corporations by reducing their ability to deduct interest payments on debt from their total tax burden, taxing capital gains and carried interest as ordinary income, instituting formulary apportionment to properly tax multinational corporate activity, and reducing the relative tax incentives for pass-through firms.

Reducing the Bias for Corporate Debt Financing

The Benefits of Reducing the Interest Deduction on Corporate Debt

Financial and nonfinancial corporations have a tax-driven incentive to fund operations through debt rather than equity, decreasing their ability to sustainably absorb losses. Firms are able to take a tax deduction on interest payments on their debt but not for the returns that firms pay out on equity, i.e., dividend and capital gains payments to shareholders. In other words, payments on equity cannot be deducted when computing corporate taxable income, but interest payments on debt can, leading to an overuse of leverage by firms, particularly in the financial sector. This pro-debt bias affects nonfinancial and financial corporations, but the cumulative impact of increased leverage is more significant in the financial sector (Roe and Troge, 2016). During the financial crisis, firms were vastly indebted—Lehman Brothers and Bear Stearns had less than 4% of their value in equity (Roe and Troge, 2016)—and firms took on additional risk by using instruments like hybrid securities, which counted as debt for tax purposes but were considered equity for regulatory purposes. This resulted in insufficient buffers for financial firms in times of deep strain, which produced grave consequences. Much regulatory policy after the financial crisis has focused on increasing the capital buffer that firms have so that they are less at risk, but many experts have proposed that to truly stabilize the financial sector for the future, banks should be required to hold much higher equity levels. (See, for example, Admati et al. 2013; Roe and Troge 2016.)

If not coupled with a reduction of the tax rate or a new deductibility for equity expenses, reducing the deductibility of interest would increase the tax revenue paid by American corporations.

It would also substantially reduce the tax bias in favor of debt financing. That bias directly contradicts the goals of other regulatory policy because, under current policy, firms rationally calculate a financial loss if they prioritize equity over debt. As long as banks have an economic disincentive to hold equity versus debt, they will resist higher equity requirements. Banks object to increased capital funded through equity in part because equity is more expensive than debt, and it is unclear if regulation that mandates a certain level of capital by law can ensure sufficient capital requirements such that the system itself would be stabilized in practice. Tax policy that reduces the debt incentive and penalizes equity could increase stability in two ways: reducing leverage and increasing equity, both of which would increase banks' likelihood of remaining stable in the next (inevitable) crisis.

Would the higher level of taxable income resulting from eliminating the interest deduction, specifically for the financial sector, have a negative impact on lending to the real economy? Though arguably some



lending would be judged too expensive, the purpose of reducing the interest deduction is not only to raise revenue, but to reduce the risk of macroeconomic consequences from an over-leveraged and systemically risky financial system. In other words, a reduction in speculative lending could be turn out to be socially efficient. Additionally, firms are arguably sitting today on excess cash. For further discussion of this topic, see the Roosevelt Institute's *Disgorge the Cash* (Mason 2015).

The Revenue Potential of Reducing the Interest Deduction for Corporate Debt as a Stand-alone Policy

Reducing the deductibility of interest payments on debt can be partial or complete; we focus our analysis on a partial reduction of the interest deduction. President Obama's Business Tax Reform Proposal (2016) included a proposal to "reduce the tax preference for debt-financed investment, such as by haircutting corporate interest deductions by a certain percentage," though the proposal did not specify a tax rate. This policy could be complemented by a reduction in the corporate tax rate, in order to achieve revenue neutrality, or it could stand alone as a revenue enhancer. We recommend the policy as a stand-alone, as reducing the corporate tax rate would have cost, for example, more than \$1 trillion over the 10-year period from 2014-2023 (Tax Policy Center, 2013).

Pozen and Goodman (2012) provide an estimate of partially reducing the interest deduction for debt, finding that if the corporate interest deduction were capped at 79% for financial firms and 65% for nonfinancial corporations, the revenue raised would have totaled \$651 billion in the 10-year period from 2000-2009. The study does not account for income shifting or other behavioral changes, which are generally overstated by the literature in any case (Steinbaum and Bernstein, 2017).

Following Pozen and Goodman (2012), we estimate the revenue potential of reducing the tax deductibility of interest for the nonfinancial corporate and financial sectors separately. We update the analysis of the impact of partially capping the corporate interest deduction for 2004-2013.^{xi} We find that over the 10-year period from 2004-2013 (the latest year in which data is available), capping the interest deduction to 65% for nonfinancial corporations and 79% for financial corporations would broaden the tax base by \$2.3 trillion, raising an additional \$815 billion in revenue or, on average, \$81.5 billion per year.

Specifically, if financial corporations were limited to deducting only 79% of interest payments, this would broaden their tax base by \$460.7 billion over a 10-year period, increasing the taxable base by roughly 17%; nonfinancial corporations, limited to deducting only 65% of interest payments, would add \$1.87 trillion back as taxable income. This would lead to additional tax payments of \$161.3 billion and \$654.5 billion, respectively, at a 35% statutory tax rate. Extending the analysis further, if the interest deduction were further capped at 50% for nonfinancial corporations and 70% for financial corporations, the total taxable base would increase by \$3.3 trillion, and tax revenue could be \$1.2 trillion. Though this is not a dynamic estimate, it shows the scale of revenue potential from reducing the interest deduction.

Another Approach: Make Equity Costs Tax-Deductible

A separate policy option that would reduce the preference for leverage is to make payments on equity, including dividends and capital gains, tax-deductible for the corporation (Stiglitz, 2014). This policy, however, would not raise revenue but instead further reduce the tax burden on corporations, and a version of it was tried through the individual tax system in 2003, when tax rates on "qualified" dividends

^{xi} Following Pozen and Goodman's methodology, we use the IRS Statistics on Income Table 17, "Returns with Net Income, Form 1120"; we update the analysis for the 10-year period from 2004-2013.



were reduced. That did not cause any increase in corporate investment or job creation; instead, the tax cut's windfall went entirely to shareholders (Yagan, 2015). Existing proposals to “integrate” the individual and corporate tax systems by making dividends and other payments to shareholders tax-deductible at the corporate level would likely have similar effects.

Parts of Europe have such an “allowance for corporate equity,” which allows a certain level of profits to be tax-deductible. Roe and Troge (2016) argue for focusing this policy on financial institutions by allowing banks to take a deduction for the cost of equity capital above the required amount in order to avoid penalizing banks for holding additional equity. They propose pairing this with a further reduction of the tax deductibility for liabilities in order to discourage the use of the riskier form of financing, which would even further reduce revenue. In other words, this targeted approach would encourage the holding of equity over the required minimum while avoiding complexity and transition problems by avoiding targeting the equity capital that is required by regulation. With this approach, there would be no windfall tax benefit to financial firms.

Reforming Capital Gains Taxes

The Benefits of Taxing Capital Gains as Ordinary Income

A preferential tax rate for capital gains is one of the largest tax expenditures offered by the United States government (Tax Policy Center 2017). “Capital gains” refers to the increase in value of a capital asset, like a house or a stock, since its initial purchase. Capital gains are preferentially taxed: The top individual tax bracket for labor income is 39.6%, whereas the top capital gains rate has dropped—first to 20% in 1997, with President Clinton’s Taxpayer Relief Act, and to 15% in 2001, with President Bush’s Jobs and Growth Tax Relief Reconciliation Act. Today, the capital gains tax rate is 20% for individuals in the highest bracket with an additional 3.8% tax on net investment income. Raising the rate of taxation on capital gains would reduce the incentives for the top 1% to reclassify labor income as capital gains, create a more progressive system of taxation, and generate significant revenue.

Debates over the optimal rate of capital taxation have centered on whether higher capital gains rates deter investment and harm economic growth. Policymakers have significantly reduced the capital gains tax burden since 1986, as advocates promised the cuts would “turbocharge” the economy and unleash new levels of economic growth (Burman 2012b). Early economic models that claimed that the optimal tax rate for capital taxation was zero did not account for the ways in which preferential rates on capital influence rent-seeking, which incentivized wealthy individuals to devote resources to erroneously classify their labor income as capital gains.

The ability for wealthy individuals to avoid taxation affects economic growth and performance in ways beyond the government’s loss of revenue. Mason (2015) empirically considers the relationship between corporate cash flows and corporate investments and finds that it has “disappeared” in the last 30 years. Instead of investing in the economy or paying workers higher wages, corporate profits are “funneled to shareholders through buybacks and dividends.” Preferential rates for capital taxation are a key piece of this puzzle; the shareholders’ earnings are taxed at a considerably lower rate than their income would be, inducing corporations and shareholders alike to invest resources and energy to ensure that a greater percentage of earnings are realized as capital gains. The capital gains tax is regressive; sixty-eight percent of the benefits of capital gains tax breaks go to the top 1% of the population (Stiglitz, 2014), and wealthy individuals are more likely to have stocks and investments make up a higher share of their total net worth.



Beyond the rates themselves, there are features of the capital tax code that explicitly encourage rent-seeking, like the “step-up of basis at death” provision. Capital gains in America are not taxed until they are realized, meaning that if one buys a stock that appreciates in value, gains are not taxed until the stock is sold. The step-up provision allows for assets to be passed on to family and heirs at death, untaxed, with the base value of the asset “stepped-up in value” on the date of the death. This provision essentially functions as a loophole that allows billions of dollars in capital assets to go untaxed (Stiglitz, 2014). Eliminating the step-up of basis at death provision would not enact any immediate tax but rather accurately value all of the capital gains since the asset’s purchase. With the step-up provision in place, however, wealthy families can avoid taxation on capital gains, generation after generation.

A realization-based system inherently privileges wealthy owners of capital by giving them discretion over when and how to earn their income. We know that realizations are timed to temporary reductions in the tax rate that took place over the last several years. A realization system also allows individuals to defer taxation by simply accumulating money on the balance sheets of the corporations they own (often in tax havens), rather than paying it out to shareholders. A major component of overall wealth in the economy comes from accumulated, but unrealized, capital gains, including undistributed earnings retained on the balance sheets of profitable and over-capitalized companies.

Recent economic theory has supported the idea that capital can be taxed without damaging growth. Stiglitz has argued that monopoly rents masquerading as return to capital should be “taxed at a very high rate” (Atkinson and Stiglitz, 2015) and that the lowered rates on capital taxation gains “have given the wealthiest Americans close to a free ride” (Stiglitz 2011). Multiple studies—such as Conesa, Kitao, and Krueger (2007) and Piketty and Saez (2012)—have modeled optimal capital taxation and found that the optimal rate is significantly above current levels—upwards of 50-60% in some cases. Clausing (2016a) notes that much of the early theoretical foundation assumed unrealistic economic conditions, like perfectly homogeneous household preferences, perfect foresight, and perfect capital markets.

After the capital gains tax rate was lowered to 15%, economists had the chance to observe how lowered rates affected growth. Yagan (2015) specifically looked at the 2003 tax cut on dividends, which was intended to spur corporate investment and employee compensation. Policymakers moved the top rate on qualified dividends from 38.6% to 15%, which was one of the largest capital tax cuts in United States history. Controlling for cyclical corporate outcomes, Yagan compares the tax returns of corporations affected by the dividend rate cut and corporations unaffected by the dividend rate cut. He finds that the drastic dividend tax cuts had no discernible effect on either corporate investment or employee compensation. Instead, money was channeled to shareholders through buybacks and dividends, effectively spurring a redistribution of wealth from the government to top corporate shareholders. Burman (2012b) graphed the top capital gains tax rates and economic growth over time and finds “no obvious relationship” between the two variables: “I’ve tried lags up to five years and also looking at moving averages of the tax rates and growth. There is never a statistically significant relationship.”

The Revenue Potential of Taxing Capital Gains as Ordinary Income

One straightforward proposal to improve the tax code is to remove preferential treatment for capital gains—that is, to tax labor income and capital gains at the top rate of 39.6%.

The Joint Committee on Taxation found in 2017 that “reduced rates of tax on dividends and long-term



capital gains” is a tax expenditure that costs \$677.7 billion in foregone revenue from 2016-2020, an average of \$135.5 billion per year.

Year	2016	2017	2018	2019	2020	Total
Revenue (\$billions)	130.9	133.6	135.9	137.3	139.9	677.7

Data source: JCT (2017)

The Treasury Department (2017, p. 155) considered the revenue effects of taxing capital at 28%, a more incremental increase than removing preferential treatment entirely. The Treasury projected this modest increase would raise \$235.2 billion over ten years, an average of \$23.5 billion annually.

Year	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
Revenue (\$billions)	14.8	24.7	20.6	22.0	23.2	23.4	24.7	26.0	27.3	28.6	235.2

Source: Treasury Department (2017)

An earlier estimate from the Tax Policy Center projected the effects of taxing capital gains as ordinary income. They estimated that this proposal would raise \$934.4 billion from 2007-2017, an average of \$84.9 billion per year (2007). One significant reason why this estimate is lower is because the rate of taxation on the highest individual tax bracket was 35% in 2007, whereas the more recent JCT estimate used the current rate of 39.6% on the highest earners. Unlike the JCT projection, the TPC projection does not attempt to account for microeconomic behavioral responses. The older dataset, lack of behavioral modeling, and differing top income brackets accounts for much of the differences between the two revenue estimates.

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Revenue (\$billions)	35.5	83.7	84.5	84.8	83.4	85.1	88.3	91.7	95.5	99.7	104.1	934.4

Source: Tax Policy Center (2007)

The Economic Policy Institute (Thiess 2013) estimated the revenue effects of a decidedly less incremental policy approach: taxing capital gains as ordinary income in conjunction with establishing new tax brackets and raising the top income bracket to 49%. Considered together, the EPI projected that these policies would raise \$1.6 trillion over 10 years, an average of \$160 billion annually. More relevantly, EPI estimated the revenue effects of eliminating the step-up basis at death provision to be a net of \$452 billion over 10 years (Fieldhouse and Thiess, 2013). Eliminating the step-up-in-basis is a crucial component of capital gains tax reform, since it would reduce the incentive to delay realization and, thus, increase the ability to generate revenue by increasing the statutory capital gains tax rate as one could no longer avoid the tax simply by accumulating the gains until death.

It should be mentioned, however, that the capital gains tax is hobbled by the tax preferences for corporate equities that allow them to escape taxation at the individual level altogether. Austin and Rosenthal (2016) report that the rise of tax-advantaged retirement accounts substantially eroded the value of corporate stock subject to the capital gains tax—from 83.6% in 1965 to 24.2% in 2015. This

astounding finding means that, to a great extent, capital income is exempt from taxation at the individual level, regardless of the capital gains tax rate or whether the system is realization-based.

While the revenue estimates differ based on different methodologies and tax rates, they show that taxing capital gains as ordinary income could raise a \$1 trillion or more over the course of a decade. Ending the step-up basis at death provision in isolation could raise close to half a trillion dollars over 10 years, and even more if combined with a raise of the capital gains tax rate. In addition to significant revenue increase, taxing capital gains like labor income could improve the efficiency and equity of our tax system, disincentivize rent-seeking, and reduce income inequality.

Reforming Carried Interest

The Benefits of Taxing Carried Interest as Ordinary Income

“Carried interest” refers to the profit share earned by general partners in investment funds that are organized as partnerships, such as private equity and hedge funds. This policy means that the managers of such firms—some of the wealthiest individuals on Wall Street—pay a tax rate that is 15.8 percentage points lower^{xii} than the top marginal income tax rate.^{xiii} A standard arrangement is for general partners to receive a 20% share in profits, representing a large proportion of their total compensation, taxed with capital gains tax upon realization. General partners in investment funds earn this “profit share” through their work managing their fund on a day-to-day basis, as opposed to “limited” partners, who contribute capital but do not have an active management role. We argue that this compensation should be properly taxed as labor income, finding that taxing this activity fairly would raise between \$2 billion and \$8 billion in federal revenue annually.

The rationale given for treating such activity as capital gains rather than labor is that the general partner of such funds should be considered as engaging in entrepreneurial activity rather than service or executive activity. Entrepreneurs pay capital gains, not ordinary income tax rates, when they profit off of the sale of their businesses, even though they have been providing labor services in the normal course of building their business. In the case of private equity and hedge funds, this is not persuasive because managerial service activity in other industries is properly taxed as labor income. Fund managers of the private equity firms are providing a managerial service by helping to restructure firms:

[W]hether one views the service provided as one having positive or negative social value, there is no reason that the provision of this service should be taxed at a lower rate than other managerial services. There is no reason that these managers should be able to avoid taxation... [in order to take] advantage of the favorable treatment of capital gains. (Stiglitz 2014, p. 19)

^{xii} Comparing a 39.6% top marginal income tax rate with a 23.8% capital gains tax rate.

^{xiii} Often, fund managers make a separate equity investment into the firm, which is taxed appropriately as capital. It is crucial for policymakers to disentangle the labor service versus capital investment of the general partner. The general rule is articulated in Section 707(a)(1), which provides that if a partner engages in a transaction with a partnership “other than in his capacity as a member of such partnership,” then the transaction shall be treated, for tax purposes, as if it occurred between the partnership and a third party. (Fleisher 2015, p. 20)

The Revenue Potential of Taxing Carried Interest as Ordinary Income

President Obama's FY2017 budget proposed treating carried interest earned by general partners at private equity and hedge funds as labor income subject to simple ordinary income tax rates. A Treasury estimate of President Obama's budget proposal found that a policy change to tax the efforts of fund managers properly as labor income would raise over \$19 billion over 10 years (Department of the Treasury 2016, p. 162). Crucially, the estimate assumes that revenue would decline in the out-years as behavioral changes and cause a decline in taxable activity; they estimate a maximum revenue collection of \$2.6 billion in 2018, declining to \$1 billion by 2026.

Year	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2017–2021	Total (2017–2026)
Revenue (\$billions)	2.6	2.6	2.5	2.4	2.4	1.9	1.5	1.2	1.2	2.0	1.0	19.3

Source: Department of the Treasury 2016, "General Explanations of the Administration's Fiscal Year 2017 Revenue Proposals," p. 162.

In the Congressional Budget Office's budget report, *Options for Reducing the Deficit: 2017 to 2026*, they give revenue projections for taxing carried interest as ordinary income, also finding that taxing carried interest as ordinary income would raise nearly \$20 billion over 10 years. In contrast to the Treasury proposal, the revenue collected annually stayed relatively steady over the 10-year period.

Year	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2017–2021	Total
Revenue (\$billions)	1.6	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	9.8	19.9

Source: Congressional Budget Office (2016, p. 150)

Vic Fleisher, a leading legal academic expert on carried interest, proposed a specific approach to carried interest in which the general partner (service partner) has their allocation treated as compensation for services, or ordinary labor income, only when their contribution is less than the aggregate amount of capital contributed by tax-exempt partners (limited partners), in order to achieve "efficiency, equity and administrability," since limited partners who are tax-exempt will not face a loss when their profit allocation goes up as they pay wages to service partners under the new policy scenario (Fleisher 2015).^{xiv} His estimate utilizes the IRS Statistics on income figures for general partners in partnerships, finding that a 20% rate increase (from ordinary capital to labor income tax rates) could raise \$8 billion a year in additional revenue. This category, "partnership general partners," reported \$56 billion in income in 2010, \$53 billion in 2011, and \$78 billion in 2012—or, an increase of nearly 40% in two years. Fleisher finds that in 2012, roughly half of the \$78 billion was taxed as capital income; if it were appropriately taxed as labor income, it would have raised roughly \$8 billion per year.

Fleisher's estimate of the elimination of the carried interest loophole would raise a higher level of revenue than the various Obama Administration estimates, mainly due to different assumptions of the

^{xiv} Fleisher further specifies his rationale for this approach, which is meant to target the policy change to the types of partnerships that truly are investment funds: "The approach distinguishes neatly between investment funds and operating partnerships. Few partnerships that operate a business have tax-exempt limited partners; few investment funds of significant size do not have significant amounts of capital contributed by tax-exempt limited partners." His purpose with this structure is to ensure that smaller real estate and other operating partnerships would see no change from current law.

behavioral response of wealthy fund managers. From Fleisher 2015:

The vast difference between the government's estimate and my own is attributable to the anticipated behavioral response to the tax change, which one can think of as dynamic scoring on a microeconomics level. For example, imagine that we doubled the capital gains rate to 40% from 20%. We would not get twice as much revenue as we do now. Some owners of appreciated property would feel 'locked in' and defer the sale of assets. The government's low revenue estimate results from this 'X factor' of anticipated behavioral response.

We update Fleisher's estimate with the most recent data available, calculating the revenue impact of a shift in carried interest policy from 2005-2014. We find that if the partnership income that was taxed at the capital gains and dividend rate were taxed at the labor income rate for the top marginal income tax bracket, nearly an additional \$78 billion in revenue over the 10-year period (IRS 2016). It is notable that, unlike many of our other estimates, the revenue potential varies widely from year to year, and it is harder to predict how changes in the industry would change the revenue potential going forward.

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2005–2014
Revenues (\$billions)	5.6	4.6	6.7	4.3	-1.0	4.1	5.4	8.2	28.8	10.9	77.8

Source: IRS (2016)

Fair Corporate Taxation

Reforming our corporate income tax code could end the incentives for corporations to game the system through accounting tricks in a “race to the bottom” for their tax bills. By aligning our tax system with the economic activity that actually occurs in a given year, we can eliminate distorted incentives and discourage rent-seeking behavior.

The corporate share of federal tax revenue is at its lowest ever—down from 39.8% in 1943 to 9.9% in 2012 (Steinbaum and Bernstein 2017). Although on paper the United States imposes a relatively high corporate statutory tax rate (compared to other OECD countries) of 35% at the highest bracket, in reality the effective corporate tax rate is in the single digits for the largest U.S. multinational corporations (Avi-Yonah and Lahav 2011; Krantz 2016). For example, General Electric, Boeing, Verizon, and 23 other Fortune 500 firms paid no federal income taxes in the United States from 2008-2012, and 288 other large Fortune 500 companies paid an average effective tax rate of just 19.4% in the same period (Americans for Tax Fairness 2014). This is due in large part to a tax code that is lagging behind the pace of globalization, which includes the rise of multinational corporations. The current tax code incentivizes corporations to move assets and jobs abroad and allows wealth to accumulate within corporations, serving as a *de facto* tax shelter for wealthy individuals. Crucially, the outsourcing of jobs and profits are two separate phenomena: The jobs go where wages are low, and the profits go where taxes are low. This discretion over the location of profits, and the consequent race to the bottom in international corporate taxation, is the primary reason for the erosion of the revenue collected through corporate taxes.

Some policymakers argue that further corporate tax cuts are the solution to stagnating job growth and



wages, but an earlier report by the Roosevelt Institute (Steinbaum and Bernstein 2017) thoroughly debunks that myth. Corporations have more than enough cash on hand (over \$2 trillion collectively stashed overseas) to invest, raise wages, and create jobs; their tendency is to choose shareholder dividend payouts and stock buybacks over productive investment, or simply sit on retained earnings (Phillips et al. 2014; Mason 2015). Tax cuts for corporate income will simply enrich shareholders. For example, the 2003 dividend tax cut discussed above led to no discernible increase in investment or job creation and caused shareholder payouts to spike by 21.5% (Yagan 2015). Raising the effective tax rates on corporate income will fairly tax corporate profits, and would help reduce the disproportionate shifting of wealth to shareholders.

In addition to properly structuring economic incentives, these tax reforms would recapture the lost revenue that is owed to the public. Multinational corporations are able to earn profits because of the infrastructure, education, and legal systems that tax dollars fund. Without paying their proportionate share of taxes, American workers and domestic companies are picking up the bill (or being shortchanged on public services). Raising revenues through the policies above would be beneficial to society and provide much needed revenue for investments that will provide true economic security to all.

We highlight several options for revenue-raising reforms to the corporate tax code that will realign incentives to help the real economy grow:

- Tax multinational corporations through formulary apportionment
- Eliminate tax loopholes that distort the economy, reduce revenue, and create inequities
- Impose a minimum income tax on global corporate income

We find that a system of formulary apportionment would bring about the best structural reform to the corporate tax system, and closing loopholes provides necessary adjustments. After briefly explaining each policy and its effects, we offer a range of its revenue potential.

Tax Multinational Corporations Through Formulary Apportionment

We argue that the optimal tax reform is to institute a tax on multinational corporations through formulary apportionment, in which corporations calculate profits globally and have no incentive to shift assets and profits to tax havens. While U.S. corporate tax rates are reasonable on paper, corporations keep their profits largely overseas and avoid entity-level taxation. Complex tax avoidance strategies lead to a stark mismatch between actual economic activity and profits as they are reported for the purposes of taxation. Clausing (2016b) demonstrated this point in her findings that 10 tax haven countries are reportedly responsible for 50% of all foreign profits for multinationals, even though very little economic activity occurs there and only 5% of employment comes from those firms. Under the current system, firms assess what they would have received for the goods that they produced in a particular place if they had sold the products in an arm's-length transaction, even if that transaction wouldn't have been possible between the markets in those two jurisdictions (Stiglitz 2014).

We propose a corporate tax reform called formulary apportionment or, more specifically, “Sales Factor Apportionment” (SFA).^{xv} Similarly to how U.S. states apportion tax liability between states, this methodology calculates the portion of total worldwide sales made in a particular jurisdiction (its “sales factor”) and multiplies that by total global profits to determine the tax base, country by country. Because corporations cannot easily shift their customers to a new jurisdiction, this results in a less elastic tax

^{xv} We will use these terms interchangeably throughout this section.

base than does calculating profits country by country. Rather than tax multinational corporations based on their ability to perform complex tax arbitrage, a formulary apportionment system would allocate a corporation's tax liabilities based on the true origin of its income, i.e., where its employees and operations are located and where sales occur. In addition to ending inefficient profit-shifting behavior by American corporations, formulary apportionment would raise revenue from corporate rent-seeking and pure profit activity.

Clausing has found that the cost of corporate profit shifting without a system of SFA was in the range of \$77- \$111 billion annually as of 2012, based on Bureau of Economic Analysis data. This represents over 30% of U.S. corporate income tax revenues (Clausing, 2016b). This is consistent with the \$98.1 billion increase in annual tax revenue implied by Guvenen et al. (2017), which re-attributes corporate profits booked overseas to the United States through formulary apportionment.

Formulary apportionment would not be a simple or easy system to establish, as it would require the cooperation of other countries to be fully effective (CBO, 2013b). However, having the United States lead the way in shifting to this system would be a significant step forward in establishing a new global corporate taxation paradigm. For more on this topic and corporate tax reform more broadly, see the earlier work by the Roosevelt Institute in Steinbaum and Bernstein (2017) and Stiglitz (2014).

Eliminate Tax Loopholes That Distort the Economy, Reduce Revenues, and Create Inequities

There are many tax loopholes currently on the books that allow corporations to game the tax system to pocket more profits without pursuing more productive economic behavior.

First, we should eliminate two accounting methods that artificially deflate the value of what corporations own and, in turn, the tax that they pay on those assets. The first tax practice that should be eliminated is the “Last-In, First-Out” (LIFO) accounting method. LIFO, one of the 10 largest tax breaks in the corporate code (Committee for a Responsible Federal Budget 2013), allows businesses to make their income look smaller than it normally would for tax purposes (Wamhoff 2014). When a company estimates their profits on which they will be taxed, they subtract their costs from their gross revenues. LIFO allows them to assume that the most recently acquired inventory, which is usually higher in cost, was sold before their oldest inventory, which would be lower in cost, creating artificially lower profits that do not match actual sales. This method makes the biggest impact in industries like industrial equipment or petroleum, where prices change quickly and inventory moves slowly (CRFB 2013). This policy, obscure and technocratic to most, siphons off significant revenue that could be put toward the public good; it cost American taxpayers \$5 billion in 2013 and \$60-65 billion over the preceding decade, according to the JCT (2013). Eliminating it will align tax responsibilities with companies' actual economic behavior.

By closing both the LIFO and “Lower of Cost or Market” loophole—which allows companies to estimate the value of their inventory on either the market value or its cost, whichever is lower—the CBO (2013a) estimated that an additional \$112 billion could be raised over 10 years (from 2014-2023). The Obama administration's revenue raising plan estimated that the elimination of the two loopholes would raise \$88.1 billion from 2017-2026, and Citizens for Tax Justice (Wamhoff 2012) found that eliminating both LIFO and LCM accounting methods would raise \$98 billion over 10 years.

We must also eliminate our heavy tax subsidies for fossil fuel and gas production, which harm our



environment, create inequities, and let these companies carry a much lighter tax burden. The tax code currently has 13 tax loopholes that give preference to fossil fuel companies. The CBO (2013a) estimated that eliminating the top three loopholes—percentage depletion, intangible drilling costs, and the manufacturing deduction—would raise roughly \$3.4 billion annually. CTJ (Wamhoff 2012) found that eliminating the same subsidies would generate \$38 billion over a decade. Closing the loopholes could also have an impact on mitigating climate change by reducing oil and gas drilling by 9% and 11%, respectively, and reducing global consumption by nearly 1% (Metcalf 2016). The Obama administration’s tax reform plan estimated that closing all fossil fuel related loopholes would raise \$38.2 billion in revenue from 2017-2026 (Department of the Treasury, 2016), and the Treasury department estimated in 2014 that the subsidies cost the government \$4.7 billion a year in potential revenues at the time.

Impose a Minimum Tax on Global Income

Though a minimum tax on global corporate income would serve as a stop-gap policy without changing the structural incentives for corporate profit-shifting, it is important to consider the revenue impacts if such a policy were put into place. The structure of corporate taxation allows U.S. corporations earning profits overseas to avoid paying taxes on such profits until they are repatriated back to the United States, which has allowed some of the most profitable corporations to hold their assets within their foreign subsidiaries instead, thus avoiding U.S. taxation. For example, Apple made \$34.2 billion in profit in 2011 and paid only \$3.3 billion total in taxes around the world, of which \$2.5 billion were paid in the U.S. That brings their U.S. effective corporate income tax rate to a mere 7.3% (Steinbaum and Bernstein 2017).

To avoid tax liabilities, multinational corporations hold profits abroad, and borrow to fund investment and operational expenses. In early 2015, Bloomberg estimated these shielded sums at \$2.1 trillion, suggesting tax arbitrage on a grand scale and a huge loss of potential government revenue (Rubin 2015). Though ostensibly part of the corporate tax burden is paid by shareholders through their payment of taxes on capital gains, this tax burden is also largely avoided; we know from the aforementioned Rosenthal and Austin (2016) that taxes on capital income are largely avoided at the individual level.

In 2012, the Joint Committee on Taxation estimated the five-year (2011–2015) cost of deferring taxes on the earnings of controlled foreign corporations at \$87 billion, making it the largest single tax expenditure. Two years later, that number more than tripled, reaching a projected \$265.7 billion for 2013–2017 (JCT, 2013). It leaped again—by roughly 50%, according to the most recent estimate—to a staggering \$418 billion for the 2014-2018 tax years (JCT 2014). Citizens for Tax Justice (Phillips et al. 2016) found that multinational corporations use offshore tax havens to avoid paying \$100 billion in taxes each year.

CTJ (Wamhoff 2012) estimated the revenue potential in repealing the indefinite deferral of U.S. taxes on offshore profits to be \$583 billion over 10 years. The Obama administration’s 2017 revenue estimates show that a 19% minimum tax on foreign income—with no deferral, meaning that they are applied to profits in the year they are earned—would generate \$350 billion from 2017-2026 (The White House and the Department of Treasury, 2016). Additionally, imposing a one-time 14% tax on un-repatriated foreign earnings would generate \$299 billion over 10 years with revenue generated from 2017-2022. The Economic Policy Institute found that ending the indefinite deferral on taxes on overseas income could raise about \$126 billion annually, or \$1.3 trillion over ten years (Clemente et al. 2016).



Corporate Tax Reform Policy	Low-end Annual Estimate (\$billions)	High-end Annual Estimate (\$billions)
Formulary Apportionment	77.0	111.0
Closing LIFO and LCM Tax Loopholes	8.8	11.2
End Subsidies for Fossil Fuel and Gas Production	3.4	4.7
Impose a Minimum Tax on Global Income (End Indefinite Deferral)	58.3	126.0

Reducing the Pass-through Entity Bias

The Benefits of Properly Taxing Pass-through Entities

Pass-through businesses are entities that are structured so that profits are passed through to the individual owners for taxation purposes and claimed on individual tax returns, rather than at the entity level. The use of this corporate form has accelerated in recent years as a larger share of firms have shifted away from C-corporations, i.e., corporations that are taxed separately from their owners. Cooper et al. (2015) found that pass-through businesses—including sole proprietorships, partnerships, LLCs, and S-corporations—now generate over half of U.S. business income and account for much of the post-1980 rise in the top 1% income share.

The shift has had serious revenue implications. As Cooper et al. (2015) put it, “Nowhere is the inefficiency of the tax more apparent than in the porous border between one group of businesses [corporations] that must pay [entity-level] tax and the other that can escape it.” The total share of business receipts earned by pass-through businesses increased from 9% in 1986 to 38% in 2012, largely due to policy changes put in place by the Tax Reform Act of 1986. If pass-through activity had remained at a low, 1980s level, strong but straightforward assumptions imply that the 2011 average U.S. tax rate on total U.S. business income would have been 28% rather than 24% and that tax revenue would have been approximately \$100 billion higher annually (Cooper et al. 2015).

Pass-through entities are disproportionately used by top income earners, such as doctors, lawyers, consultants, and investment firm partners. Sixty-two percent of pass-through income is earned by taxpayers with income over \$250,000, and over 82% of net pass-through income is earned by taxpayers with an adjusted gross income (AGI) of over \$100,000 (Keightley, 2012). In 2011, Cooper found that the top 1% of income earners received nearly 70% of S-corp and partnership income. Financial firms and holding companies make up a disproportionate 70% of partnership income and are taxed at a 14.7% rate—the lowest among sectors with a significant amount of partnership activity—because such firms earn a disproportionate proportion of their income as capital gains and dividends. A recent estimate by the Center on Budget and Policy Priorities found that about half of all pass-through income flows to the top 1% of households—those with incomes above \$693,500 in 2016—and only 27% accrues to the bottom 90% of the income distribution (Marr et al., 2017). Cooper (2015) similarly found that 41% of the increase in the top income share from 1980 to 2013 is due to higher pass-through business income. Put another way, households in the top 1% of the income distribution are over 50 times more likely to earn partnership income than households in the entire bottom half of American households.

The majority of policies that would impact pass-through income involves directly impacting individual tax rates, including income and capital gains tax rates, as discussed above. What would directly impact the pass-through structure itself? One solution could be to reduce the ability for businesses to classify themselves as pass-through entities, as was proposed by then-U.S. Treasury Secretary Tim Geithner in 2011. Specifically, the Obama Administration expressed interest in—though did not formally propose—re-classifying the entity form for tax purposes and taxing large pass-throughs as corporate businesses. “Large” could be defined either by annual revenues or by output, though the boundaries of this are difficult to define. President Obama’s Economic Recovery Advisory Board proposed taxing pass-throughs with “corporate characteristics” as corporations, thereby imposing an entity-level tax.

The Revenue Potential of Properly Taxing Pass-through Entities

Cooper et al. (2015) estimated the static loss due to the growth of pass-through entities using a baseline of the proportion of pass-throughs and corporate entities that existed in 1980 and extrapolating what current tax receipts would look like if the proportion had remained constant up until the present time. They found that:

“The migration of business activity out of the C-corporate sector and into the pass-through sector has likely substantially reduced U.S. tax revenue. If 2011 business income had instead been earned along 1980 sector income shares, we estimated under strong but straightforward assumptions that the average tax rate on U.S. business income would have been 28%, yielding an extra \$100 billion in tax revenue. If not for the rapid growth of pass-through entities, projected corporate tax revenues for 2015 would be nearly 3% of GDP instead of 2.2%. If the corporate sector’s share of business stayed at the same level as it was in 1999, it would be about 10% larger. Assuming tax liability is proportionate to gross receipts, this would increase corporate revenue by \$40 billion. If the corporate sector’s share of business stayed at the same level as it was in 1990, it would be about 35% larger—an increase in corporate revenue of \$140 billion... [However,] we should be careful not to interpret the \$140 billion figure as a pure revenue loss. Much of the corporate tax’s loss is the individual income tax’s gain. Back-of-the-envelope calculations suggest that the net revenue loss to the government is probably more like one-third of the gross figure.”

The U.S. Department of the Treasury analyzed the effective marginal tax rates on passthrough entities versus C-corporations for 2015 specifically for new investment by firms, finding a 4.8% difference between the C-corporation rate of 30.1% and the pass-through rate of 25.3% (Department of Treasury, 2016).

Cooper et al. (2015) also looked at the average tax rate on income earned in the partnership sector versus other sectors:

We estimate that the average income tax rate on income earned in the partnership sector in 2011 was 15.9%. Extending our tax rate definition to other sectors, we estimate the average tax rate in 2011 in the C-corporate sector to have been 31.6%, in the S-corporate sector to have been 24.9%, and in the sole proprietorship sector to have been 13.6%. Hence, partnership income is taxed at the lowest income tax rate in the major formal business sectors (i.e., non-sole-proprietorships). Weighted by 2011 sector income shares, these estimates imply an average tax rate on U.S. business income of 24.3%. We believe this estimate to be the most comprehensive estimate available of the average tax rate on U.S. business income.

Using the rates above, we calculated the difference between what pass-through entities paid in taxes based on their net income for 2013 and what they would have paid if they were taxed first at the average business tax rate and secondly at the corporate tax rate. This is an illustration of the absolute difference based on differential tax rates among entities, even though some pass-through entities should properly be taxed using this structure. We find that if all three types of pass-through entities (S-Corps, Non-Farm Sole Proprietorships, and Partnerships) had been taxed at the average business income rate of 24.3%, for 2013, taxes would have been cumulatively \$93 billion higher. If we take Cooper et al.'s assessment that approximately one-third represents the true revenue loss, then we can assume that the rise in pass-through entities has cost approximately \$31 billion in revenue annually.

	Cooper et al. Tax Rate	Net Income For 2013		Tax at Cooper Rate	Tax at Average Business Rate
S-Corporation	24.9%	\$515 billion		\$128 billion	\$125 billion
Nonfarm Sole Proprietorships	13.6%	\$302 billion		\$41 billion	\$73 billion
Partnerships	15.9%	\$768 billion		\$122 billion	\$186 billion
Total Change					+\$93.82 billion

Source: IRS Statistics on Income, Business Tax Table (2013)

Conclusion

The policies presented in this report would serve a dual purpose if enacted into law: They would raise billions of dollars in critical public revenue while reducing the concentration of wealth at the top of the income distribution. None of these policies are sufficient on their own, as America's corporate and financial tax structure and individual tax code all need to be rebalanced towards fairness and true productivity. The depth of challenges that our economy faces can only be met by rewriting the rules of the economy structurally. In further research, we will put forward proposals for how this wealth could be redirected to create good jobs and enact new, game-changing public policies, such as a universal basic income, universal health care and child care, and a federal jobs guarantee.

Though further research is necessary in each area to develop up-to-date dynamic estimates for true revenue estimation, it is our hope that by presenting the range of revenue available, we can encourage the political will to achieve fundamental change. Our goal is simply to demonstrate that America has enormous wealth that is currently captured by a small minority, which could be redirected to public goods that would serve the entire country. Recent polling^{xvi} shows that the American electorate wants bold economic change from its policymakers. Though the likelihood of the policies we discuss passing Congress in the current environment is low, we believe that policymakers can and should address the needs of the nation through robust reform to our corporate and financial tax system.

^{xvi} Polling includes "The unheard winning and bold economic agenda" from the Roosevelt Institute and Democracy Corps, and "What Happened in 2016?" from Lake Research Partners.



Bibliography

- Adams, Kimberly. 2016. "How Sanders would tax Wall Street to pay for college." Marketplace. <https://www.marketplace.org/2016/02/11/elections/how-sanders-would-tax-wall-street-pay-college> (Accessed March 26, 2017).
- Admati, Anat, Peter DeMarzo, Martin Hellwig, and Paul Pfleiderer. 2013. "Fallacies, Irrelevant Facts, and Myths in the Discussion of Capital Regulation: Why Bank Equity is Not Socially Expensive." Rock Center for Corporate Governance at Stanford University. <https://www.gsb.stanford.edu/sites/gsb/files/ssrn-id2349739.pdf> (Accessed March 30, 2017).
- Americans for Tax Fairness. 2014. "2014 Tax Fairness Briefing Booklet: Corporate Tax Rates." <https://americansfortaxfairness.org/files/11-ATF-Corporate-Tax-Rates-fact-sheet.pdf> (Accessed April 4, 2017).
- Atkinson, Anthony and Stiglitz, Joseph. 2015. "Lectures on Public Economics." Princeton University Press, June 9, 2015.
- Avi-Yonah, Reuven S. and Yaron Lahav. 2011. "The Effective Tax Rate of the Largest US and EU Multinationals." *Law & Economics Working Papers*: Paper 41. http://repository.law.umich.edu/cgi/viewcontent.cgi?article=1150&context=law_econ_current (Accessed March 23, 2017).
- Baker, Dean. 2016. "Reining in Wall Street to Benefit All Americans: The Case for a Financial Transactions Tax." Center for Economic and Policy Research. <http://cepr.net/images/stories/reports/reining-in-wall-street-to-benefit-all-americans.pdf?v=2> (Accessed on March 26, 2017).
- Baker, Dean. 2017. "Financial Transactions Taxes Make the Economy More Efficient." Center for Economic and Policy Research. <http://cepr.net/publications/op-eds-columns/financial-transactions-taxes-make-the-economy-more-efficient> (Accessed April 4, 2017).
- Baker, Dean, Robert Pollin, Travis McArthur, and Matt Sherman. 2009. "The Potential Revenue from Financial Transactions Taxes." Center for Economic and Policy Research. <http://cepr.net/documents/publications/ftt-revenue-2009-12.pdf> (Accessed March 26, 2017).
- Bivens, Josh and Hunter Blair. 2016. "A financial transaction tax would help ensure Wall Street works for Main Street." Economic Policy Institute. <http://www.epi.org/publication/a-financial-transaction-tax-would-help-ensure-wall-street-works-for-main-street/#epi-toc-4> (Accessed March 26, 2017).
- Burman, Leonard, William Gale, Sarah Gault, Bryan Kim, James Nunns, and Steven Rosenthal. 2015. "Financial Transaction Taxes in Theory and Practice." Tax Policy Center. <http://www.taxpolicycenter.org/publications/financial-transaction-taxes-theory-and-practice/full> (Accessed on March 26, 2017).
- Burman, Leonard. 2012a. "No Obvious Relationship between Capital Gains Tax Rates and Economic Growth." Tax Policy Center. <http://www.taxpolicycenter.org/taxvox/no-obvious-relationship-between-capital-gains-tax-rates-and-economic-growth> (Accessed March 26, 2017).
- Burman, Leonard. 2012b. "Tax Reform and the Tax Treatment of Capital Gains." Tax Policy Center. <http://www.taxpolicycenter.org/publications/tax-reform-and-tax-treatment-capital-gains/full> (Accessed March 26, 2017).
- Cecchetti, Stephen and Enisse Kharroubi. 2012. "BIS Working Papers No 381: Reassessing the impact of finance on growth." Bank For International Settlements. <http://www.bis.org/publ/work381.pdf> (Accessed on March 26, 2017).
- Center for Economic and Policy Research. 2013. "Statements of Support for a Financial Transaction Tax." <http://cepr.net/documents/ftt-support.pdf> (Accessed March 26, 2017).
- Chamley, Christophe. 1986. "Optimal Taxation of Capital Income in General Equilibrium with Infinite Lives." *Econometrica*, Vol. 54, No. 3 (May, 1986), pp. 607-622. <http://icepp.gsu.edu/files/2016/08/Optimal-taxation-of-capital-income-in-general-equilibrium-with-infinite-lives.pdf> (Accessed March 26, 2017).
- Clausing, Kimberly. 2016a. "Strengthening the Indispensable U.S. Corporate Tax." Washington Center for Equitable Growth. <http://equitablegrowth.org/report/strengthening-the-indispensable-u-s-corporate-tax/> (Accessed March 26, 2017).
- Clausing, Kimberly. 2016b. "The Effect of Profit Shifting on the Corporate Tax Base in the United States and Beyond." *National Tax Journal*: 69(4):905-934.
- Clemente, Frank, Hunter Blair, and Nick Trokel. 2016. "Corporate Tax Chartbook: How Corporations Rig the Rules to Dodge the Taxes They Owe." Washington, DC: Economic Policy Institute and Americans for Tax Fairness. <http://www.epi.org/publication/corporate-tax-chartbook-how-corporations-rig-the-rules-to-dodge-the-taxes-they-owe/> (Accessed March 24, 2017).



Committee for a Responsible Federal Budget. 2013. “The Tax Break-Down: LIFO Accounting.” Washington, DC: Committee for a Responsible Federal Budget. <http://www.crfb.org/blogs/tax-break-down-lifo-accounting> (Accessed March 23, 2017).

Conesa, Juan Carlos, Sagiri Kitao and Dirk Krueger. 2007. Taxing Capital? Not A Bad Idea After All! National Bureau of Economic Research. <http://www.nber.org/papers/w12880.pdf> (Accessed March 26, 2016).

Congressional Budget Office. 2013a. “Options for Reducing the Deficit: 2014 to 2023.” <https://www.cbo.gov/budget-options/2013/44841> (Accessed March 23, 2017).

Congressional Budget Office. 2013b. “Options for Taxing U.S. Multinational Corporations.” <https://www.cbo.gov/sites/default/files/113th-congress-2013-2014/reports/02-28-2013-multinationaltaxesone-col.pdf> (Accessed March 23, 2017).

Congressional Budget Office. 2016. “Options for Reducing the Deficit: 2017 to 2026.” <https://www.cbo.gov/sites/default/files/114th-congress-2015-2016/reports/52142-budgetoptions2.pdf> (Accessed March 26, 2017).

Cooper, Michael, John McClelland, James Pearce, Richard Prisinzano, Joseph Sullivan, Danny Yagan, Owen Zidar, and Eric Zwick. 2015. “Business in the United States: Who Owns It and How Much Tax Do They Pay?” Office of Tax Analysis. <https://www.treasury.gov/resource-center/tax-policy/tax-analysis/Documents/WP-104.pdf> (Accessed March 30, 2017).

Department of Treasury. 2014. “United States — Progress Report on Fossil Fuel Subsidies.” <https://www.treasury.gov/open/Documents/USA%20FFSR%20progress%20report%20to%20G20%202014%20Final.pdf> (Accessed March 30, 2017).

Department of the Treasury. 2016. “General Explanations of the Administration’s Fiscal Year 2017 Revenue Proposals.” Washington, DC: Department of the Treasury. <https://www.treasury.gov/resource-center/tax-policy/Documents/General-Explanations-FY2017.pdf> (Accessed March 23, 2017).

Erickson, Jennifer and Adam Hersh. 2013. “5 Reasons the World is Catching on to the Financial Transaction Tax.” Center for American Progress. <https://www.americanprogress.org/issues/economy/news/2013/02/25/54503/5-reasons-the-world-is-catching-on-to-the-financial-transaction-tax/> (Accessed March 26, 2017).

European Commission: Commission Staff Working Paper. 2011. “Proposal for a Council Directive on a common system of financial transaction tax and amending Directive 2008/7/EC.” http://ec.europa.eu/smart-regulation/impact/ia_carried_out/docs/ia_2011/sec_2011_1102_en.pdf (Accessed March 26, 2017).

Ferreira, Francisco. 1999. “Inequality and Economic Performance: A Brief Overview to Theories of Growth and Distribution.” The World Bank. <http://siteresources.worldbank.org/INTPGI/Resources/Inequality/ferreira.pdf> (Accessed on March 26, 2017).

Fieldhouse, Andrew and Rebecca Thiess. 2013. “The ‘Back to Work’ Budget: Analysis of the Congressional Progressive Caucus budget for fiscal year 2014.” Economic Policy Institute. <http://www.epi.org/files/2013/EPI-Back-To-Work-Budget-FY2014.pdf> (Accessed April 5, 2017).

Fleischer, Vic. 2015. “How a Carried Interest Tax Could Raise \$180 Billion.” The New York Times. https://www.nytimes.com/2015/06/06/business/dealbook/how-a-carried-interest-tax-could-raise-180-billion.html?_r=0 (Accessed March 30, 2017).

Hagströmer, Björn and Lars Norden. 2012. “The Diversity of High-Frequency Traders.” SSRN. <https://ssrn.com/abstract=2153272> (Accessed March 26, 2017).

IRS. “Statistics on Income, Partnership Tables.” 2016. <https://www.irs.gov/uac/soi-tax-stats-partnership-statistics-by-sector-or-industry> (Accessed March 30, 2017).

Financial Stability Oversight Council, 2017. “Nonbank Financial Company Designations.” <https://www.treasury.gov/initiatives/fsoc/designations/Pages/default.aspx> (Accessed May 18, 2017).

Johnson, Simon. 2011. “Tax Reform and the Tax Treatment of Debt and Equity.” Peterson Institute for International Economics. <https://piie.com/commentary/testimonies/tax-reform-and-tax-treatment-debt-and-equity> (Accessed March 30, 2017).

Joint Committee on Taxation. 2010. “Background and Issues Related to the Administration’s Proposed Tax on Financial Institutions.” <https://www.jct.gov/publications.html?func=startdown&id=3681> (Accessed March 30, 2017).

Joint Committee on Taxation. 2013. “Estimates of Federal Tax Expenditures for Fiscal Years 2012-2017.”



<https://www.jct.gov/publications.html?func=startdown&id=4503> (Accessed March 23, 2017).

Joint Committee on Taxation. 2014. "Estimates of Federal Tax Expenditures for Fiscal Years 2014-2018." <https://www.jct.gov/publications.html?func=startdown&id=4663> (Accessed March 24, 2017).

Joint Committee on Taxation. 2017. "Estimates of Federal Tax Expenditures for Fiscal Years 2016-2020." <https://www.jct.gov/publications.html?func=startdown&id=4971> (Accessed March 30, 2017).

Judd, Kenneth. 1985. "Redistributive Taxation in a Simple Perfect Foresight Model." *Journal of Public Economics* 28 (1985) 59-83. [https://eml.berkeley.edu/~saez/course/Judd_JPubE\(1985\).pdf](https://eml.berkeley.edu/~saez/course/Judd_JPubE(1985).pdf) (Accessed March 26, 2017).

Kashkari, Neel. 2016. "The Minneapolis Plan to End Too Big to Fail." Federal Reserve Bank of Minneapolis. <https://www.minneapolisfed.org/~media/files/publications/studies/endingtbt/the-minneapolis-plan/the-minneapolis-plan-to-end-too-big-to-fail-2016.pdf?la=en> (Accessed March 30, 2017).

Keightley, Mark. 2012. "Who Earns Pass-Through Business Income? An Analysis of Individual Tax Return Data." Congressional Research Service. <https://fas.org/sgp/crs/misc/R42359.pdf> (Accessed March 30, 2017).

Keynes, John Maynard. 1936. "The General Theory of Employment, Interest, and Money." Palgrave Macmillan.

Knowledge@Wharton. 2014. "Michael Lewis on a Rigged Stock Market and the Heroes of Wall Street." <http://knowledge.wharton.upenn.edu/article/michael-lewis-rigged-stock-market-heroes-wall-street/> (Accessed March 26, 2017).

Konczal, Mike and Nell Abernathy. 2015. "Defining Financialization." New York, NY: Roosevelt Institute. http://rooseveltinstitute.org/wp-content/uploads/2015/10/Defining_Financialization_Web.pdf (Accessed March 24, 2017).

Krantz, Matt. 2016. "27 Giant Profitable Companies Paid No Taxes," March 7, USA Today. <http://www.usatoday.com/story/money/markets/2016/03/07/27-giant-profitable-companies-paid-no-taxes/81399094/> (Accessed March 23, 2107).

Marr, Chuck, Chye-Ching Huang, Brandon Debot, and Guillermo Herrera. 2017. "Will New Trump Tax Plan Include Pass-Through Tax Break for Wealthiest?" Center on Budget and Policy Priorities. <http://www.cbpp.org/research/federal-tax/will-new-trump-tax-plan-include-pass-through-tax-break-for-wealthiest> (Accessed March 30, 2017).

Mason, Josh W. 2015. "Disgorge the Cash: The Disconnect Between Corporate Borrowing and Investment." New York, NY: Roosevelt Institute. <http://rooseveltinstitute.org/wp-content/uploads/2015/09/Disgorge-the-Cash.pdf> (March 20, 2016)

Metcalfe, Gilbert E. 2016. "The Impact of Removing Tax Preferences for U.S. Oil and Gas Production." New York, NY: Council on Foreign Relations; Maurice R. Greenberg Center for Geoeconomic Studies Discussion Paper. https://morningconsult.com/wp-content/uploads/2016/08/Discussion_Paper_Metcalfe_Tax_Preferences_OR.pdf (Accessed March 23, 2017).

Office of Congressman Peter DeFazio. 2011. "Memo: Joint Tax Committee Finds Harkin, DeFazio Wall Street Trading and Speculators Tax Generates More Than \$350 Billion." <http://defazio.house.gov/media-center/press-releases/memo-joint-tax-committee-finds-harkin-defazio-wall-street-trading-and> (Accessed March 26, 2017).

Organisation for Economic Co-operation. 2014. "Inequality hurts economic growth, finds OECD research." <http://www.oecd.org/newsroom/inequality-hurts-economic-growth.htm> (Accessed on March 26, 2017).

Piketty, Thomas and Emmanuel Saez. 2012. "A Theory of Optimal Capital Taxation." National Bureau of Economic Research. <http://www.nber.org/papers/w17989.pdf> (Accessed March 26, 2017).

Phillips, Richard, Steve Wamhoff, and Dan Smith. 2014. "Offshore Shell Games 2014: The Use of Offshore Tax Havens by Fortune 500 Companies." Citizens for Tax Justice and U.S. PIRG Education Fund. <http://ctj.org/pdf/offshoreshell2014.pdf> (Accessed March 20, 2017).

Pollin, Robert, James Heintz, and Thomas Herndon. 2016. "The Revenue Potential of a Financial Transaction Tax for U.S. Financial Markets." Political Economy Research Institute, University of Massachusetts Amherst. <https://www.peri.umass.edu/media/k2/attachments/WP414.pdf> (Accessed March 26, 2017).

Pozen, Robert and Lucas Goodman. 2012. "Capping the Deductibility of Corporate Interest Expense." Tax Notes. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2190966 (Accessed March 30, 2017).

Roe, Mark and Michael Troege. 2016. Containing Systemic Risk by Taxing Banks Properly. European Corporate Governance Institute (ECGI). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2767151 (Accessed March 30, 2017).

Rosenthal, Steven M. and Lydia S. Austin. 2016. "The Dwindling Taxable Share of U.S. Corporate Stock." Tax Notes May 16,



2016. <http://www.taxpolicycenter.org/f6457107-c112-44c8-b1dd-bb0310115b2b> (Accessed March 23, 2017).
- Rubin, Richard. 2015. "U.S. Companies Are Stashing \$2.1 Trillion Overseas to Avoid Taxes." March 4, Bloomberg. <https://www.bloomberg.com/news/articles/2015-03-04/u-s-companies-are-stashing-2-1-trillion-overseas-to-avoid-taxes> (Accessed March 23, 2017).
- Sahay, Ratna, Martin Čihák, Papa N'Diaye, Adolfo Barajas, Ran Bi, Diana Ayala, Yuan Gao, Annette Kyobe, Lam Nguyen, Christian Saborowski, Katsiaryna Svirydzhenka, and Seyed Reza Yousefi. 2015. "Rethinking Financial Deepening: Stability and Growth in Emerging Markets." International Monetary Fund, Monetary and Capital Markets Department and Strategy and Policy Review Department. <https://www.imf.org/external/pubs/ft/sdn/2015/sdn1508.pdf> (Accessed March 26, 2017).
- Sammartino, Frank, James R. Nunns, Leonard E. Burman, Jeffrey Rohaly, and Joseph Rosenberg. 2016. "An Analysis of Senator Bernie Sanders's Tax Proposals." Tax Policy Center. <http://www.taxpolicycenter.org/publications/analysis-senator-bernie-sanderss-tax-proposals/full> (Accessed March 2016, 2017).
- Securities and Exchange Commission, Staff of the Division of Trading and Markets. 2014. "Equity Market Structure Literature Review Part II: High Frequency Trading." https://www.sec.gov/marketstructure/research/hft_lit_review_march_2014.pdf (Accessed March 26, 2017).
- Shorter, Gary and Rena Miller. 2014. "High-Frequency Trading: Background, Concerns, and Regulatory Developments." Congressional Research Service. <https://fas.org/sgp/crs/misc/R43608.pdf> (Accessed March 26, 2017).
- Steinbaum, Marshall and Eric Bernstein. 2017. "Fool Me Once: Why Another Corporate Tax Cut Won't Boost the Economy." New York, NY: Roosevelt Institute. http://rooseveltinstitute.org/wp-content/uploads/2017/02/FoolMeOnce_Feb17.pdf (Accessed March 20, 2017).
- Stiglitz, Joseph. 1989. "Using Tax Policy To Curb Speculative Short-Term Trading." *Journal of Financial Services Research*, 3: 101-115. https://academiccommons.columbia.edu/download/fedora_content/.../ac.../10676.pdf (Accessed March 26, 2017).
- Stiglitz, Joseph. 2011. "Of the 1%, By the 1%, For the 1%." *Vanity Fair*. <http://www.vanityfair.com/news/2011/05/top-one-percent-201105> (Accessed March 26, 2017).
- Stiglitz, Joseph E. 2014. "Reforming Taxation to Promote Growth and Equity." New York, NY: Roosevelt Institute. http://rooseveltinstitute.org/wp-content/uploads/2014/05/Stiglitz_Reforming_Taxation_White_Paper_Roosevelt_Institute.pdf (Accessed March 23, 2017).
- Stiglitz, Joseph. 2016. "Inequality and Economic Growth." <https://pdfs.semanticscholar.org/e7a9/1a0a266fdf99e8aeb6626710225209a070b0.pdf> (Accessed March 26, 2017).
- Tax Policy Center. 2007. "T07-0107 - Tax Capital Gains as Ordinary Income, Static Impact on Individual Income Tax Liability and Revenue (\$ billions), 2007-17." <http://www.taxpolicycenter.org/model-estimates/taxing-capital-gains-ordinary-income/tax-capital-gains-ordinary-income-static-impact> (Accessed March 26, 2017).
- Tax Policy Center. 2013. "T13-0112 - FY2014 House Budget Proposal (Without Unspecified Revenue Raisers); Impact on Tax Revenue (billions of current dollars), 2014-2023; Baseline: Current Law." <http://www.taxpolicycenter.org/model-estimates/fy2014-house-budget-proposal-without-unspecified-revenue-raisers/fy2014-house-1> (Accessed April 5, 2017).
- Tax Policy Center. 2017. "What are the largest tax expenditures?" <http://www.taxpolicycenter.org/briefing-book/what-are-largest-tax-expenditures> (Accessed March 30, 2017).
- Thiess, Rebecca. 2013. "Many options exist for raising revenue in a smart and progressive manner." Economic Policy Institute. <http://www.epi.org/publication/options-exist-raising-revenue-smart-progressive/> (Accessed April 5, 2017).
- Wamhoff, Steve. 2012. "Policy Options to Raise Revenue." Washington, DC: Citizens for Tax Justice. <http://ctj.org/pdf/revenueraisers2012.pdf> (Accessed March 23, 2017).
- Wamhoff, Steve. 2014. "Senators Defend LIFO, a Tax Break that Obama and Camp Want to Repeal." October 27, Tax Justice Blog: A Project of Citizens for Tax Justice and the Institute on Taxation and Economic Policy. http://www.taxjusticeblog.org/archive/2014/10/senators_defend_lifo_a_tax_bre.php#.WMAdKhLyuT9 (Accessed March 23, 2017).
- The White House and the Department of Treasury. 2016. "The President's Framework for Business Tax Reform: An Update." <https://www.treasury.gov/resource-center/tax-policy/Documents/The-Presidents-Framework-for-Business-Tax-Reform-An-Update-04-04-2016.pdf> (Accessed March 24, 2017).
- Yagan, Danny. 2015. "Capital Tax Reform and the Real Economy: The Effects of the 2003 Dividend Tax Cut." *American Economic Review* 105(12):3531-3562. <https://eml.berkeley.edu/~yagan/DividendTax.pdf> (Accessed March 26, 2017).

