# Taxing Wealth

Greg Leiserson, Washington Center for Equitable Growth

# Abstract

The U.S. income tax does a poor job of taxing the income from wealth. This chapter details four approaches to reforming the taxation of wealth, each of which is calibrated to raise approximately \$3 trillion over the next decade. Approach 1 is a 2 percent annual wealth tax above \$25 million (\$12.5 million for individual filers). Approach 2 is a 2 percent annual wealth tax with realization-based taxation of non-traded assets for taxpayers with more than \$25 million (\$12.5 million for individual filers). Approach 3 is accrual taxation of investment income at ordinary tax rates for taxpayers with more than \$16.5 million in gross assets (\$8.25 million for individual filers). And Approach 4 is accrual taxation at ordinary tax rates with realization-based taxation of non-traded assets for those with more than \$16.5 million in gross assets (\$8.25 million for individual filers). Under both the realization-based wealth tax and the realization-based accrual tax, the tax paid upon realization would be computed in a manner designed to eliminate the benefits of deferral. As a result, all four approaches would address the fundamental weakness of the existing income tax when it comes to taxing investment income: allowing taxpayers to defer paying tax on investment gains until assets are sold at no cost.

# Introduction

In fiscal year 2019 the federal government collected revenues equal to 16.3 percent of GDP, well below the 17.4 percent average of the prior 50 years (Congressional Budget Office [CBO] 2019b). In light of both existing spending commitments and the potential benefits of additional spending in a variety of areas, the federal government should raise additional revenues. High and rising inequality strongly suggests that the wealthy should contribute a substantial share of these revenues (Auten and Splinter 2019;

Batty et al. 2019; Bricker et al. 2016; Piketty, Saez, and Zucman 2018; Saez and Zucman 2016; Smith, Zidar, and Zwick 2019). Moreover, structural weaknesses in how the income tax applies to the income from wealth weaknesses that facilitate tax avoidance and generate inequities—point to the taxation of wealth as an area ripe for reform.

Under current law, gains on investment assets are taxed only when realized, generally meaning when an asset is sold. About 20 percent of the income of the top 1 percent consists of realized capital gains (CBO 2019a). However, measuring capital gains only when they are realized understates both total incomes and the portion attributable to capital gains. Unrealized gains, meaning increases in the value of investment assets that have not been sold, represent a substantial fraction of all gains and have grown in importance in recent decades (Robbins 2018). Importantly, unrealized gains on assets that are never sold during a taxpayer's lifetime are wiped out for income tax purposes at death under a provision known as step-up in basis. (See appendix A for a description of the taxation of wealth and investment income under current law.)

The opportunity to defer taxation until assets are sold and to avoid taxes entirely if assets are never sold leads to widespread, and costly, tax avoidance. Moreover, even when gains are taxed, they are taxed at preferential rates. The maximum federal income tax rate on capital gains and dividends is only 23.8 percent, whereas the maximum rate on ordinary income is 40.8 percent.<sup>1</sup>

Reforming the taxation of wealth—by strengthening the tax base and simultaneously increasing tax rates—offers an important opportunity to raise substantial revenues from the wealthiest families. This chapter details four alternative approaches to reforming the taxation of wealth:

- 1. A 2 percent annual wealth tax on the market value of a family's wealth in excess of \$25 million for married couples and \$12.5 million for individuals.
- 2. A 2 percent annual wealth tax on the market value of a family's publicly traded assets and liabilities, combined with an equivalent retrospective tax on non-traded assets when they are sold, applicable to family wealth in excess of \$25 million for married couples and \$12.5 million for individuals.
- 3. Accrual taxation of investment income at ordinary tax rates for married taxpayers with more than \$16.5 million in gross assets and single taxpayers with more than \$8.25 million in gross assets, meaning that

affected taxpayers would include all investment gains in income in the year in which the gains accrue through mark-to-market accounting.

4. Accrual taxation of investment income from publicly traded assets and liabilities at ordinary tax rates, combined with an equivalent retrospective tax on income from non-traded assets when they are sold, applicable to married taxpayers with more than \$16.5 million in gross assets and individual taxpayers with more than \$8.25 million in gross assets.

Under Approaches 2 and 4, both of which tax gains on non-traded assets upon realization, the tax paid would be computed in a manner designed to eliminate the benefits of deferral, through what is known as a deferral charge. To simplify terminology, I refer to these approaches as realizationbased approaches throughout this chapter, even though they rely on realization only for non-traded assets and not for publicly traded assets.

The four approaches share many common features, both as a matter of implementation and as a matter of economics. They differ in structure on two main dimensions: whether they tax the stock of wealth or the flow of income from wealth, and whether they are based on annual asset valuations or rely on realization for assets that are not publicly traded (see figure 1). The wealth tax approaches apply to the stock of wealth, whereas the accrual taxation approaches apply to the flow of income from wealth. The wealth tax and the accrual tax rely on annual valuations for all assets and liabilities, while the two realization-based approaches rely on realization to measure the value of non-traded assets.

#### FIGURE 1.

# Four Approaches to Taxing Wealth

	Tax on wealth	Tax on income from wealth
Valuation-based taxation of non-traded assets	Wealth tax (Approach 1)	Accrual taxation (Approach 3)
Realization-based taxation of non-traded assets	Realization-based wealth tax (Approach 2)	Realization-based accrual taxation (Approach 4)



As a result of these structural differences, the approaches differ in their treatment of uncertain investment returns, their treatment of assets that deliver nonfinancial returns, the scope for and ease of integration with the existing income tax, progressivity, and the risk that the proposals would be declared unconstitutional. All four approaches would avoid the structural shortcomings of the current income tax, delivering larger revenue increases for a given increase in burden than would be possible with a simple increase in the tax rate on capital gains.

The wealth tax and accrual tax approaches (Approaches 1 and 3, respectively) are each calibrated to raise \$3 trillion between 2021 and 2030, ignoring transitional revenues under the accrual tax. The burden of both approaches would lie overwhelmingly on the wealthiest households. Essentially all of the burden of the wealth tax (Approach 1) would lie on the wealthiest 1 percent of households in 2021, and 98 percent of the burden of the accrual tax (Approach 3) would lie on the wealthiest 1 percent of households.<sup>2</sup> However, the wealth tax would be more heavily concentrated on the very wealthiest households than would the accrual tax. The accrual tax would also affect more households (0.8 percent of all households) than the wealth tax (0.5 percent). Both approaches would substantially reduce the after-tax incomes of the top 1 percent of households when classified by wealth, with after-tax incomes falling by 15 percent in 2021 under the wealth tax and 12 percent under the accrual tax.

Separate estimates of the revenues raised and burden imposed by the realization-based approaches are not presented in this chapter due to the limited evidence on which to base an estimate of the differences between the valuation-based approaches (Approaches 1 and 3) and the realization-based approaches (Approaches 2 and 4). However, these differences are critical in assessing their relative merits, so I provide substantial discussion of these differences below.

As presented in this chapter, taxing wealth—whether through a wealth tax or accrual taxation of investment income—serves to complete the income tax. This motivation for taxing wealth is not new with this proposal. Schenk (2000) proposes adopting a wealth tax alongside a consumption tax, which she brands as a proposal to save the income tax. And accrual taxation is part of the Haig-Simons income tax base that has long been considered the benchmark for a comprehensive income tax, defined as consumption plus the change in net worth (Simons 1938).<sup>3</sup>

The chapter proceeds as follows. The first section describes the shortcomings of the current system and explains why fundamental reform is needed. The next section lays out the four approaches to taxing wealth in detail. The following section reviews the economic effects of taxing wealth. The fourth section addresses questions and concerns about taxing wealth. A final section concludes.

# The Challenge

As noted in the introduction, income from wealth accounts for a substantial share of all income for the wealthiest households, but the existing income tax does a poor job of taxing this income. The root cause of this problem is that the tax code allows taxpayers to defer (without interest) paying tax on investment gains until assets are sold. Realization-based taxation of capital gains without an appropriate deferral charge opens the door to substantial and costly tax avoidance, reducing revenues and generating inequities across taxpayers.

On its own, deferral—the opportunity to delay paying tax until an asset is sold—mechanically reduces the present value of tax due on an investment (i.e., the value of the tax that will be due over the life of the asset today, after adjusting for the time value of money) because the tax liability does not compound over time. In other words, a taxpayer who must pay tax on asset returns every year accumulates wealth more slowly than a taxpayer who pays tax only once after holding an asset for several years. Symmetrically, just as taxpayers benefit from deferring gains, they also benefit from accelerating losses. And, since taxpayers can choose when to realize gains and losses, they will tend to accelerate the sale of assets that have decreased in value.

The incentive to defer tax is much larger than just the time value of money, however, because deferral can be combined with other provisions of tax law to yield additional benefits. Taxpayers may hope to avoid selling an asset until their death, and thus hope to avoid paying any capital gains tax whatsoever. In the case of real estate assets, they may plan to swap one asset for another in a like-kind exchange that allows them to defer tax.<sup>4</sup> And, although like-kind exchanges offer only a temporary deferral of tax, they make it easier to avoid selling assets during a taxpayer's life and thus also facilitate the use of the step-up in basis at death to avoid tax entirely. Taxpayers may allow assets to appreciate and then donate the appreciated asset to charity, in which case they pay no tax on the capital gain but receive a charitable deduction equal to the market value including the gain. Finally, but importantly, taxpayers may choose to delay selling an appreciated asset because they expect Congress to reduce tax rates in the future; thus, by holding on to an asset they expect to ultimately pay tax at a lower rate. All of these actions to avoid tax through deferral come at a cost. Taxpayers incur costs for professional services as they structure their transactions to avoid buying or selling assets. Taxpayers incur costs when they skew their portfolio away from what would otherwise be their preferred investments to assets that can benefit from deferral more readily, such as shifting their portfolio from debt to equity. And taxpayers incur costs when they hold on to positions that are no longer desirable from a pretax perspective because selling their position would require them to pay taxes.

I am unaware of a direct estimate of these costs in the aggregate, but there is substantial indirect evidence that these costs are an important consideration in individuals' tax planning and thus for policymakers when setting tax policy. For example, researchers have documented that taxpayers adjust the timing of their transactions to benefit from the difference in the tax rate on short-term and long-term gains. These responses are indicative of taxpayers' willingness and ability to avoid taxes by changing the timing of capital gains realizations, and suggestive of the costs associated with changing the timing. Dowd, McClelland, and Mortenson (2019), for example, find pronounced spikes in the quantity of capital gains realized just over the eligibility threshold for the lower long-term capital gains rate (figure 2).



# FIGURE 2. Capital Gains Realizations by Holding Period

Note: Capital gains are eligible for the preferential long-term rate if the underlying assets are held for more than one year (52 weeks). Estimates are for 2012.



Source: Dowd, McClelland, and Mortenson 2019.





Similarly, the authors document that long-term capital gains realizations increase or decrease sharply in the year following a decrease or increase in the tax rate. (See figure 3 for the trend in long-term capital gains realizations over time).

As noted above, realization-based taxation of capital gains can affect not just decisions about when to sell assets, but also the choice of which assets to hold in the first place. Poterba and Samwick (2003), for example, find evidence consistent with higher tax rates encouraging a shift into assets that are more lightly taxed, such as retirement holdings, tax-exempt bonds, and equities.

Although the evidence of behavioral responses to capital gains taxes indicates the existence of costly avoidance, deferral also generates inequities across taxpayers with different capacities to exploit deferral. Wealthy taxpayers with access to financial markets can maximize the benefits of deferral on their investments including through the step-up in basis at death, but middle-class families who draw down their assets in retirement are unable to benefit from the provisions to the same extent.

Finally, the preferential rates for capital gains and dividends are both expensive and regressive. The U.S. Department of the Treasury (Treasury) estimates that the tax expenditure for the preferential rates on capital gains will total \$1.2 trillion from 2020 to 2029, and the tax expenditure for the preferential rates on dividends will be \$400 billion over the same period (Treasury 2019). The tax expenditure for stepped-up basis is an additional \$700 billion over 10 years. The Urban–Brookings Tax Policy Center (TPC)





estimates that 75 percent of the benefits of the preferential rates accrued to the highest-income 1 percent of taxpayers in 2018, with 57 percent accruing to the highest-income 0.1 percent (TPC 2018; see figure 4 for the after-tax income benefits from preferential rates on long-term capital gains and dividends). These rate disparities also encourage taxpayers to attempt to convert income taxed at ordinary rates into income that can benefit from preferential rates.

# THE NEED FOR FUNDAMENTAL REFORM

Incremental reform proposals could address some of the issues identified above and would be well worth pursuing in the absence of fundamental reform. However, these proposals do not substitute for fundamental reforms to the taxation of wealth. Indeed, incremental proposals to address these issues are often included—implicitly or explicitly—in fundamental reforms.

One major incremental reform would be to treat death or gift as a realization event for purposes of the income tax. In other words, all unrealized gains would be taxed when a person dies or gives away the underlying asset. The Obama administration included a proposal along these lines in the President's budget each year beginning in 2015 (Treasury 2015a). As noted above, the tax expenditure for the step-up in basis at death is projected to be \$700 billion over the next decade.<sup>5</sup>

A second incremental reform would be to raise the tax rate on dividends. Traditionally, dividend payments have been viewed as less sensitive to taxation than capital gains realizations and potentially less relevant in determining the equilibrium cost of capital (Weisbach 2017; Yagan 2015). However, even though they are likely less elastic than capital gains, dividends remain a financial choice for businesses and thus are likely more elastic than real economic decisions such as hiring and investment (Yagan 2015). As noted above, the tax expenditure for preferential rates on qualified dividends is \$400 billion over 10 years, and the revenue raised by repealing the preferential rate for dividends would likely be somewhat less.

A third incremental proposal would be to raise the tax rate on capital gains to match the rate on ordinary income. However, estimates of the realization response to changes in the capital gains rate suggest that this increase would have more limited revenue-raising potential. Gravelle (2019) suggests the revenue-maximizing capital gains rate according to the modeling at the Joint Committee on Taxation (JCT) and the Treasury would be under 33 percent if all other features of current law remained the same. She argues that this modeling likely overstates the responsiveness of capital gains realizations, but even so a substantial fraction of potential revenue raised would be lost due to behavior. Ricco (2019) estimates that the revenuemaximizing capital gains rate would be 33 percent under current law and 42 percent if gains were taxed at death as in the first incremental reform option above. Given the responsiveness of capital gains realizations to the tax rate, repealing the preferential rates on capital gains would likely raise substantially less than the \$1.2 trillion 10-year tax expenditure estimate even if it were combined with taxing gains at death.

Together, treating death or gift as a realization event, repealing the preferential rate for dividends, and raising the tax rate on capital gains and dividends would reflect an ambitious agenda to reduce tax preferences for capital income. However, the relative ease of avoiding capital gains taxes via strategies that exploit deferral means that these reforms would generate substantially less revenue than more ambitious proposals to tax wealth—but without imposing commensurately lower burden on taxpayers.<sup>6</sup> That is, taxing wealth, either through a wealth tax or via accrual taxation, would deliver far higher revenues at modestly higher burden than the incremental package described here.

# The Proposal

This section details four alternative approaches to reforming the taxation of wealth: (1) a 2 percent annual wealth tax, (2) a 2 percent annual wealth

tax with realization-based taxation of non-traded assets, (3) accrual taxation of investment income on all types of assets via mark-to-market accounting, and (4) accrual taxation of investment income via mark-to-market accounting for publicly traded assets combined with realization-based taxation of gains on non-traded assets when they are sold. The realization-based approaches would include a deferral charge on the sale of non-traded assets that would approximately eliminate the benefits of deferral. The accrual taxation approaches would apply ordinary rates to gains taxed under the accrual system, effectively repealing the preferential rates for capital gains and dividends.

As noted in the introduction, all four approaches represent reforms to the taxation of wealth, and thus they share many common features both as a matter of implementation and as a matter of economics. They differ in structure on two main dimensions: whether they tax the stock of wealth or the flow of income from wealth, and whether they are based on annual asset valuations or rely on realization for assets that are not publicly traded. As a result of these structural differences, the proposals differ in their treatment of uncertain investment returns, their treatment of assets that deliver nonfinancial returns, the scope for and ease of integration with the existing income tax, their progressivity, and the risk that the proposals would be declared unconstitutional.

The choice between the valuation-based approaches and the realizationbased approaches depends primarily on (1) the accuracy and opportunities for gaming in the valuation requirement and in the deferral charge, and (2) the costs of preparing valuations and complying with the deferral charge. The choice between the wealth tax and the income tax approaches depends primarily on the value of integration with the existing income tax, the importance of including assets for which the primary return is nonfinancial in the tax base, the impacts of different treatments of uncertain investment returns, the desired level of progressivity, and the weight placed on the risk that the proposal would be declared unconstitutional.

The wealth tax and accrual tax proposals described here are each calibrated to raise approximately \$3 trillion over the next decade. Of course, by modifying the rates and exemptions, the reach of these proposals could be expanded or contracted. A lower rate would impose a lower burden on those affected. A higher threshold would exempt more families from the tax and reduce compliance costs (by making fewer households subject for the tax). Both of those advantages would trade against reduced tax revenue.

The remainder of this section describes each of the four approaches to reforming the taxation of wealth in detail. It first describes the wealth

tax and then the variation on a wealth tax relying on realization for the purposes of taxing non-traded assets. It next describes accrual taxation via mark-to-market accounting and then the variation of accrual taxation relying on realization for the taxation of non-traded assets.

#### **APPROACH 1: THE WEALTH TAX**

The wealth tax would impose an annual 2 percent tax on the market value of each family's wealth in excess of \$25 million for married couples and \$12.5 million for individual filers. The total annual value of gifts (other than to charitable organizations) by taxpayers subject to the wealth tax would be subject to an additional gift tax at a rate of 20 percent.<sup>7</sup>

#### The Design of the Tax

The wealth tax would be imposed on a family basis. In contrast to the income tax, dependents' wealth would be included in the wealth of the taxpayer or taxpayers eligible to claim them as dependents, not on a separate return.<sup>8</sup>

The wealth tax would apply to U.S. citizens and resident aliens who have lived in the United States for more than 10 years.<sup>9</sup> The wealth tax base would include the worldwide assets and liabilities of those taxpayers. Any tangible personal property not used in connection with a trade or business, that is not a collectible, that is reasonably expected to depreciate, and that is worth less than \$25,000 could be excluded from the tax base. This exclusion would cover household goods, personal vehicles, and other similar possessions.

Taxpayers would be required to apply a consistent method of accounting for purposes of determining the value of different assets and liabilities but would have flexibility to choose accounting methods suitable for their assets and liabilities. They could adopt different valuation dates for different assets provided that the use of those dates would not be anticipated to result in an inconsistent valuation of the taxpayer's total assets. The Treasury and the Internal Revenue Service (IRS) would have authority to issue regulations for segregated accounting of assets resulting from dispositions of assets valued on different dates within the year. For assets that are traded on an exchange, mutual funds, real estate investment trusts, other assets for which a quotation is available from an issuer, and derivatives of these assets, taxpayers could elect to use the average value at market close in the last month of the tax year.

The principle for valuation would be the fair market value of the assets and liabilities. However, no discounts for lack of marketability—a reduction applied to the estimated value of an asset when there is no ready market for

the asset—would be allowed for any asset for which at least 60 percent of the asset is owned by related parties.<sup>10</sup>

In the case of closely held businesses, this principle implies that the value of the business would not include any claim to future labor of an owneremployee. The value would include only the value of tangible and intangible assets that would convey with the business, including intangible assets such as client lists and business relationships. An important implication is that businesses for which profits consist primarily of the labor income of the owners would have relatively low valuations for purposes of the wealth tax (Smith et al. 2019). This category would likely include many professional service businesses, such as medical practices and law firms. Determining the value of firms for which the labor of owner-employees represents a substantial fraction of the value of the business would be one of the central compliance and enforcement challenges of a wealth tax.

Wealth held in trusts would be an important part of the wealth tax base both because substantial wealth is currently held in trusts and becausewere trusts not to be covered by the tax-they would be an easy means of avoiding the tax. The wealth tax would apply to trusts with no exemption, subject to certain exceptions. First, beneficiaries with an irrevocable interest, meaning a claim to benefits from the trust that cannot be modified or revoked by another party, would be allowed to elect to include in their wealth the fair market value of that interest. If they do so, the trust would be entitled to exclude the value of that interest in determining its wealth tax liability.<sup>11</sup> Hence, smaller trusts that are designed to benefit individuals who are not themselves wealthy would not owe any tax as the combined value of the trust and the individuals' wealth would be below the wealth tax thresholds. Second, grantor trusts included in the estate of the grantor under the estate tax rules would be included in the wealth tax return for the grantor. Thus, if the combined wealth of the grantor and the trust is below the wealth tax thresholds, there would be no wealth tax liability. Practically, these two exceptions mean that wealth in trusts would not be taxed for most families. However, complicated trusts that cannot be readily attributed to grantors or beneficiaries and trusts used by high-wealth individuals would pay the tax, ensuring that trusts do not become a vehicle to avoid the wealth tax.

In addition to applying the wealth tax to trusts, several additional reforms to the taxation of trusts would be included as part of this proposal to address avoidance strategies available under current law that would be even more attractive under a wealth tax. Namely, any retained interest in a trust (meaning a claim to benefits from the trust by the person setting up the trust) would be valued at zero for gift tax purposes regardless of the nature of that interest. Similarly, retained interests in property contributed to charitable organizations and charitable trusts would be valued at zero regardless of the nature of the interest.<sup>12</sup>

Careful attention to nonprofits is necessary in order to avoid excessive avoidance of the wealth tax through nonprofit organizations. Pension funds and 501(c)(3) organizations would be exempt from the wealth tax.<sup>13</sup> Other nonprofits, including 501(c)(4) social welfare organizations, which can engage in lobbying and political campaign activities; 501(c)(5) labor unions; and 501(c)(6) chambers of commerce would be subject to the wealth tax. These types of nonprofits would be entitled to a \$1 million exemption if they abide by the restrictions on lobbying and political activities that apply to 501(c)(3) organizations. The proposal would also apply the gift tax to contributions to organizations exempt from tax under 501(c)(4), 501(c)(5), and 501(c)(6). In addition, the proposal would require that in a given year donor-advised funds distribute at least 5 percent of the fair-market value of their assets (as calculated at the end of the prior year), evaluated on an account-by-account basis (not at the level of the sponsoring organization).<sup>14</sup>

A wealth tax would create an incentive for wealthy taxpayers to move abroad and relinquish their U.S. citizenship to avoid the tax. The proposal therefore includes a one-time tax that would apply upon expatriation; it would be equal to the present value of the tax due on taxable wealth on the day prior to expatriation as computed using actuarial estimates for the mortality of the wealthiest percentile of the population, future investment gains at the rate of inflation, and a discount rate equal to the federal government's borrowing rate.<sup>15</sup>

# Information Reporting

The wealth tax would be supported by a system of information reporting on balance sheet information. Two distinct regimes would apply to financial institutions and businesses.

Financial institutions would be subject to a system of information reporting modeled on the provisions of the Foreign Account Tax Compliance Act (FATCA). A financial institution for purposes of wealth tax information reporting would include any entity that (1) accepts deposits in the ordinary course of a banking or similar business; (2) holds financial assets for the account of others as a substantial portion of its business; (3) is engaged primarily in the business of investing, reinvesting, or trading in securities, partnership interests, commodities; or (4) services loans as a substantial portion of its business. The first three prongs of this definition are taken directly from those for FATCA, while the fourth prong is new, given the importance of liabilities for a wealth tax.

In parallel fashion, financial accounts would include (1) any depository account, (2) any custodial account, (3) any equity or debt interest in a financial institution other than interests that are regularly traded on an established securities market, and (4) any loans serviced by a financial institution.

For every financial account maintained by a financial institution, the financial institution would be required to furnish to the taxpayer and to the IRS a statement of the fair market value of the account on the final day of the year to the extent the account or the assets in the account would be considered publicly traded assets. In the case of assets for which the taxpayer may elect to report the average value over the last month, financial institutions would be required to report that value as well. In cases where an account covered by the wealth tax information reporting requirements triggers an information reporting obligation under current law, the financial institution would be allowed to report the information on a single combined return.

Financial institutions would be required to report on assets and liabilities for the same set of entities to which FATCA applies, including U.S. citizens, closely held U.S. corporations, partnerships, estates, and trusts. In addition, though FATCA exempts nonprofits from the reporting requirements, nonprofits other than those exempt under section 501(c)(3) and pension funds would be covered by the system of wealth tax information reporting proposed here.

In addition to the general system for information reporting for financial institutions discussed above, any employer that maintains a pension plan would be required to file an information return reporting the fair market value of each participant's interest in the plan to each participant and to the IRS. The Treasury and the IRS would be authorized to prescribe a set of actuarial assumptions for use in valuing defined benefit pension entitlements.

A parallel system of information reporting would apply to any business worth more than \$50 million. Such businesses would be required to provide a valuation of the business to the IRS and to all shareholders, partners, or other owners. This valuation would include both the value of the business as if it were owned by a single person and the valuation of each of the interests in the business.<sup>16</sup> Businesses with publicly traded stock could rely on market values as the source of the valuation they report.

Businesses worth more than \$50 million, and individual taxpayers with an interest in a business worth more than \$10 million that is not publicly traded, would be required to file an information return with the IRS for any financial transaction that implicitly or explicitly assigns a value to the business. Examples of such transactions would include, but would not be limited to, any sale of stock and any debt issuance that includes a valuation. The Treasury and IRS would have authority to determine both the set of transactions that require reporting and to provide relief from the reporting obligation in cases where businesses would otherwise be required to file an excessive number of such returns. The implied values in financial transaction reports would have no direct bearing on the valuation for wealth tax purposes; rather, they would provide a tool for the IRS to use in enforcement efforts.

Taxpayers who file a wealth tax return would be required to disclose if they value assets on their wealth tax return in a manner inconsistent with the value reported by the business on an information return. The IRS would be able to litigate values reported on business information returns with the business entity. Any change in the valuation resulting from litigation would result in a penalty for misreporting paid by the entity at the wealth tax rate of 2 percent. Taxpayers who reported an inconsistent valuation that was closer to the value determined in litigation would receive a tax credit against wealth tax liabilities for that difference multiplied by the wealth tax rate of 2 percent. Taxpayers who reported an inconsistent valuation that was farther from the value determined in litigation would be subject to an additional individual-level tax equal to the difference in the values at the wealth tax rate.<sup>17</sup>

Finally, state or local governments that impose property taxes could elect to provide property assessments to the IRS. If the IRS determines that the rules governing these assessments would be expected to generate assessments that reasonably approximate market value, taxpayers could rely on the property assessments provided by the state or local government in filing their wealth tax return.

The information reporting regime proposed here requires additional information from large businesses and from financial institutions, which tend to operate at large scale. It includes an elective regime for state and local governments, which already collect the relevant information. The system avoids imposing broad new information reporting requirements on smaller entities and does not require any wealth tax filings from individual taxpayers who are exempt from the wealth tax.

#### Administration

The statute of limitations for any adjustments to tax resulting from disputed valuations for non-traded assets would run six years from the disposition of the asset, where the definition of non-traded assets is the same as that described below in the context of the realization-based wealth tax proposal.

For any non-traded asset with a value in excess of \$5 million when sold, the taxpayer would be required to provide an annual valuation for the asset from the time of purchase to the time of sale with their wealth tax return following the sale. The valuation in each year would be based on the information known at that time, not the information known at the time of sale. If the taxpayer chooses to adjust valuations for prior years, they would be required to pay any resulting additional tax or receive a refund of reduced tax with interest. Interest would be paid on overpayments at the federal government's 10-year rate. Interest would be charged on underpayments at the federal government's 30-year rate plus two percentage points.

To minimize the costs of valuation disputes and to encourage taxpayers to adopt more accurate valuations when initially filing their tax returns, courts would be required to choose either the taxpayer's valuation or the IRS's proposed alternative valuation in resolving valuation disputes (Soled 1997). In addition, if a court adopts the IRS's valuation for any year, the IRS could adopt an irrebuttable presumption that the value on the asset from purchase through that year accumulated in an equal dollar amount each year. However, the IRS would not be required to adopt this valuation.

Any underpayment of tax attributable to a substantial wealth tax valuation understatement—defined as a valuation of 65 percent or less of the fair market value (or the value resulting from litigation, if applicable) in one year or 80 percent or less of the value in more than one year—would be subject to a penalty equal to 100 percent of the underpayment of tax. Any other underpayment would be subject to a penalty equal to 20 percent of the tax. These penalties would not apply to underpayments of tax that were identified by the taxpayer and resolved through the voluntary reconciliation process discussed above.

# Transition to a Wealth Tax

A wealth tax encourages affected taxpayers to distribute assets to family members, charities, and others to reduce the wealth subject to tax. Thus, the proposed wealth taxes would include provisions to police these types of transfers, including through increased gift taxes and exit taxes. A key issue in the transition to a wealth tax would be limiting the extent to which these transfers would occur prior to the effective date of the tax. Legislation enacting a wealth tax should apply higher gift taxes to any transfers made after the introduction of legislation in Congress and should apply the exit tax to any expatriations after that date.

Certain assets embed deferred tax liabilities. For example, a traditional individual retirement account (IRA) valued at \$1 million is worth less than a Roth IRA valued at \$1 million because distributions from the traditional IRA will be taxable but those from the Roth IRA will not be. Adoption of a wealth tax may encourage taxpayers to realize deferred tax liabilities today in order to reduce wealth tax liabilities. However, this acceleration of tax payments does not necessarily pose any problems, so policies to prevent it are largely unnecessary.

# APPROACH 2: THE REALIZATION-BASED WEALTH TAX

The realization-based version of the wealth tax would impose an annual 2 percent tax on publicly traded assets and a similar retrospective tax on non-traded assets when they are sold.

# The Design of the Tax

The realization-based wealth tax would impose an annual wealth tax with the features described above on publicly traded assets and would impose a separate tax on non-traded assets when they are sold. Taxing non-traded assets on a realization basis with an appropriate deferral charge avoids the need to estimate the value of these assets on an annual basis but creates a number of challenging design issues regarding the treatment of non-traded assets and additional scope for tax avoidance.

The tax due when a non-traded asset is sold would be computed as the wealth tax that would have been due over the duration of the investment in the asset if the return on that asset in each year had been equal to the 30-year Treasury rate plus 2 percent, accumulated over time at the after-tax rate of return in the top income tax bracket.<sup>18</sup> The use of a relatively low rate of return for these purposes is intended to discourage the conversion of publicly traded assets into non-traded assets as a means of tax avoidance.

For example, suppose a fully taxable investor held an asset for two years and sold it for \$1 million.<sup>19</sup> Assume the 30-year Treasury rate is 2 percent and the top federal income tax bracket is 40 percent. Then the wealth tax due

upon sale of the asset would be  $0.02^{*}(\$1 \text{ million}) + 0.02^{*}(\$1 \text{ million})/1.04^{*}(1 + 0.04^{*}(1 - 0.40)) = \$39,692$ . Because this is a wealth tax and not a tax on income, computation of the tax is based on the total realized value of \$1 million, and thus this asset sale would generate this tax liability whether the purchase price was \$900,000, \$1 million, or \$1.5 million.<sup>20</sup>

Since non-traded assets are taxed only when sold, additional taxes must be imposed on dividends and other distributions to prevent taxpayers from using such distributions to reduce the value of a non-traded asset prior to sale. Dividends and other distributions from non-traded C and S corporations would be subject to tax in the same manner as would proceeds from the sale of a non-traded asset. Distributions from other non-traded pass-through entities would be subject to tax to the extent they reflected a return on capital rather than labor income. Just as with the wealth tax itself, where taxpayers would need to value businesses independent of the future labor income of the owner, distinguishing distributions that reflect a return on capital from those that reflect a return on labor would be a central compliance and enforcement challenge of the realization-based version of the tax.<sup>21</sup>

Taxpayers would be required to make estimated tax payments equal to 2 percent of the basis in their non-traded assets. Estimated tax payments would accrue interest at the 30-year Treasury rate. The estimated tax that could be applied against the tax due on the sale of a non-traded asset, or the dividends paid by that non-traded asset, would be limited to the estimated tax paid on that asset. Refunds of estimated tax paid on a non-traded asset that declined in value would be available without limit.

The definition of traded assets would be modeled on the definitions used in the original issue discount regulations, and would include any assets traded on an exchange, mutual funds, real estate investment trusts, assets for which an issuer stands ready to sell or redeem any interests, and derivatives the price of which is determined by reference to any of the above.<sup>22</sup> Ownership interests in entities for which more than 20 percent of the value is attributable to publicly traded securities would be treated as two distinct ownership interests, one in a traded asset and one in a non-traded asset. However, publicly traded securities reasonably held in the conduct of a nonfinancial trade or business could be treated as part of a non-traded ownership interest in that business.

Taxpayers would be required to file a wealth tax return in any year in which the value of their assets exceeds \$25 million for married couples and \$12.5 million for single filers. However, only the value of publicly traded assets and sales of non-traded assets would be reported on the return.

Any taxpayer could elect to file a return. The retrospective tax would be due only in years in which the market value of a taxpayer's wealth exceeds the exemption threshold, effectively allowing taxpayers to adopt a market valuation of non-traded assets when that value is lower than the imputed value of non-traded assets if their total assets lie below the threshold. Some taxpayers near the thresholds may choose to incur the costs of a valuation of their non-traded assets to determine whether they need to file, and others may simply choose to file and report the value of their publicly traded assets.

#### Information Reporting and Administration

The information reporting for and administration of the realization-based wealth tax would broadly follow that of the valuation-based wealth tax but would be simplified in two important ways. First, under the realization-based wealth tax, large businesses would not be required to report estimated valuations. Second, the requirement that taxpayers provide a series of historical valuations when assets are sold would not be imposed under the realization-based wealth tax. These features are unnecessary under the realization-based wealth tax because this approach relies on realized sales proceeds rather than valuations for non-traded assets.

#### Transition to a Realization-Based Wealth Tax

The realization-based wealth tax would require a one-time valuation event for non-traded assets at the end of the taxable year before it takes effect. Tax on unrealized gains at the time of the transition would be calculated but could be deferred until the assets are ultimately sold. Interest would be imposed on the deferred tax until assets were sold.

# **APPROACH 3: ACCRUAL TAXATION**

The accrual tax would require mark-to-market accounting for all assets for married couples with more than \$16.5 million in gross assets and individuals with more than \$8.25 million in gross assets, subject to a phasein described below. The preferential rates on capital gains and dividends would not apply to gains and losses taxed under the accrual system.

#### The Design of the Tax

Taxpayers would include in their income each year mark-to-market gains and losses, defined as the change in the value of their worldwide assets and liabilities. Married couples with less than \$16.5 million in gross assets and individuals with less than \$8.25 million in gross assets would be unaffected by the proposed accrual tax. These taxpayers would continue to pay tax under the current-law realization system of capital gains taxation. The inclusion of mark-to-market gains and losses in income would phase in between \$16.5 million and \$33 million of assets. Taxpayers would include in their income a share of mark-to-market gains and losses computed as the ratio of the excess of their assets over \$16.5 million to \$16.5 million. The value of assets used in computing the phase-in percentage would be the average of the taxpayer's current-year valuation and prior-year valuation of their assets.<sup>23</sup>

For taxpayers in the phase-in range, the basis of each asset would be increased (decreased) by the share of the gain (loss) included in income. In other words, if a taxpayer includes 50 percent of all gain in income given their position in the phase-in region, then the basis of each asset would be increased by 50 percent of the gain on that asset.

As with the wealth tax proposals above, the principle for valuation under the accrual taxes would be the fair market value of the assets and liabilities. No discounts for lack of marketability would be allowed for any asset for which at least 60 percent of the asset is owned by related parties, and the valuation of closely held businesses would exclude any value attributable to future labor income of the owner.

Taxpayers would be required to apply a consistent method of accounting for purposes of determining the value of different assets and liabilities but would have flexibility to choose accounting methods suitable for their assets and liabilities. Taxpayers could adopt different valuation dates for different assets. For assets that are traded on an exchange, mutual funds, real estate investment trusts, other assets for which a quotation is available from an issuer, and derivatives of these assets, taxpayers could elect to use the average value at market close in the last month of the tax year.<sup>24</sup>

Losses on personal-use property would not be deductible. Losses on all other property could be deducted against mark-to-market gains, interest, dividends, and income from pass-through businesses. Losses could be deducted against other forms of ordinary income up to the current \$3,000 limit and could be carried back one year or carried forward indefinitely. Put differently, this proposal would expand the types of income against which losses could be deducted without limit relative to current law to include interest, dividends, and pass-through income, but would retain the \$3,000 limit for other types of income. As with the wealth tax, reforms to the taxation of trusts are required to prevent avoidance. Trusts would be subject to the requirement for markto-market accounting with no exemption. However, as with the wealth tax, trusts could exclude assets attributed to a beneficiary with an irrevocable interest and certain grantors. The accrual taxation proposals would be accompanied by the same reforms to the trust rules that accompany the wealth tax proposals, which disregard any retained interests for purposes of computing gift tax liabilities.

The taxation of pass-through entities under the accrual tax would be designed to ensure a consistent, single layer of tax on income earned through these entities. S corporation stock, partnership interests, and sole proprietorships would be included in the assets covered by the mark-to-market regime, and changes in the value of those interests would be included in income each year.<sup>25</sup> Taxpayers would receive a deduction against the change in the value of each interest equal to the income from that pass-through businesses included on their tax return and would include in their income any distributions from the pass-through business. Gains from the sale or exchange of property realized by the pass-through entity subsequent to the adoption of the accrual taxation system would be excluded from income for taxpayers under the accrual taxation regime, meaning that appreciation would be taxed on the pass-through owner's tax return when it occurs, and not when the assets are sold.<sup>26</sup>

In effect, the proposal would tax pass-through owners on the sum of passthrough income (as defined under current law but for the exclusion of posttransition gains on the sale of property) and net appreciation of the passthrough interest.<sup>27</sup> This approach would be equivalent to a tax imposed on distributions plus the change in value of the ownership interest, a definition of income that directly parallels the Haig-Simons definition. The alternative bucketing (pass-through income and net appreciation) is adopted under this proposal both because of the stronger connection to current-law practices and because the pass-through income concept is likely easier to administer and enforce.<sup>28</sup> In addition, the loss limitations described above would apply to changes in market value, but not to losses passed through directly from the business.

As with the wealth tax proposal above, this proposal would apply gift taxes to gifts to 501(c)(4), 501(c)(5), and 501(c)(6) organizations and would require donor-advised funds to distribute at least 5 percent of their assets each year, evaluated on an account-by-account basis.

As noted above, the accrual taxation proposal aims to deliver a single, uniform layer of tax on investment income as it accrues for wealthy households. In keeping with this goal, the proposal would also limit the value of tax-preferred retirement accounts. Taxpayers would be required to take distributions from defined contribution retirement accounts and IRAs equal to the excess of the value of all defined benefit, defined contribution, and IRA balances over \$3 million per taxpayer. Any portion of the excess attributable to defined benefit balances once defined contribution and IRA balances have been reduced to zero would generate an income inclusion equal to the 30-year Treasury rate multiplied by the value of the undistributed excess.

For the same reason, taxpayers who are subject to the accrual tax regime would receive a credit against taxes on dividend income for corporate taxes paid, modeled on the proposal of Toder and Viard (2016). Corporate tax liabilities would generate tentative credits at the entity level. These credits would be paid out at 25 cents per dollar of dividends paid. Taxpayers would include in income the 25-cent credit and would apply the credit against their tax due. Tentative credits would be drawn down regardless of the identity of the recipient of the dividend. In other words, dividends paid to a nonprofit owner of corporate stock would reduce the stock of tentative credits available at the entity level.

In general, C corporations, S corporations, partnerships, and sole proprietorships would not be required to mark their assets to market for purposes of determining corporate taxable income or income to be passed through to their shareholders or partners. However, life insurance companies and financial institutions would be required to determine investment income under mark-to-market rules. This requirement is necessary to prevent these entities from effectively selling the benefits of deferral to their customers.<sup>29</sup>

Taxpayers covered by the accrual tax regime in one year whose assets fall below the minimum threshold for inclusion in the following year could choose to remain in the regime or to exit. They must make this choice prior to the filing deadline for the year in which the threshold is crossed.

# Information Reporting

The information reporting regime for the accrual taxation proposal would generally follow the regime for the wealth tax proposal discussed above for both financial institutions and businesses.

However, under the accrual taxation proposal, financial institutions would be required to report to each account holder the mark-to-market gains and losses on the publicly traded assets in their accounts rather than the value of the account. As under the wealth tax proposal, financial institutions would be permitted to combine this information return with other required information returns for accounts that trigger information reporting obligations under current law.

In the case of businesses, the entities would still be required to report valuations, and the taxpayers would be responsible for reconciling the change in value with any purchases, sales, contributions, distributions, or other transactions during the year. As under the wealth tax proposal, the IRS would be able to litigate valuations with the business entity. Any adjustment to the value of the business would generate a misreporting penalty equal to the top statutory income tax rate multiplied by the change in the valuation. This payment would pass through to owners who could then reconcile on their own returns and would be able to claim a tax credit or would be required to pay an additional tax to the extent that they asserted a valuation different from that originally reported by the business entity.

#### Administration

Parallel to the case of the wealth tax, the statute of limitations for reporting of mark-to-market gains and losses on assets other than publicly traded assets would run six years from the sale of the asset. For any asset with a value in excess of \$5 million at the time of disposition, the taxpayer would be required to provide an annual valuation at the time of sale that reconciles prior valuations with the ultimate sales price. As with the wealth tax, the taxpayer would pay any resulting additional tax or receive a refund of reduced tax with interest if they choose to adjust prior-year valuations at the time of sale. In litigation, courts would be required to choose either the taxpayer's valuation or the IRS's proposed alternative valuation in resolving valuation disputes (Soled 1997). The IRS would have the option to choose an irrebuttable presumption that the gain on an asset had accrued at an equal-dollar amount each year if the courts adopt its proposed valuation.

# Transition to an Accrual Tax

An accrual tax taxes investment gains that arise after the effective date. Taxpayers thus have an incentive to inflate asset values on the effective date, which would have the effect of deferring tax on gains until assets are sold and reducing the deferral charge. To reduce this incentive, taxpayers would be required to value assets at the end of the tax year that includes the date of enactment and then pay interest on the unrealized gains until the assets are sold or transferred via gift or bequest. At that point, the deferred tax would be due. This valuation event would also be required to allocate gains on property held by pass-through entities into pre-transition gains and post-transition gains.

# APPROACH 4: THE REALIZATION-BASED ACCRUAL TAX

The realization-based accrual tax would require mark-to-market accounting for publicly traded assets as described above and would impose a deferral charge on non-traded assets when they are sold. The preferential rates on capital gains and dividends would not apply to gains and losses taxed under the accrual system or those subject to the deferral charge.

# The Design of the Tax

The realization-based accrual tax would tax gains and losses on publicly traded assets on an annual basis but would impose tax on the gains on non-traded assets only when they are sold. The set of traded assets would follow the definition proposed for the realization-based wealth tax, and would include any assets traded on an exchange, mutual funds, real estate investment trusts, assets for which an issuer stands ready to sell or redeem any interests, and derivatives the price of which is determined by reference to any of the above. Ownership interests in entities for which more than 20 percent of the value is attributable to publicly traded securities would be treated as two distinct ownership interests—one in a traded asset and one in a non-traded asset. However, publicly traded securities reasonably held in the conduct of a nonfinancial trade or business could be treated as part of a non-traded ownership interest in that business.

The tax due when a non-traded asset is sold would be computed assuming that there was a constant rate of return on the investment asset from the point of purchase to the point of sale, income tax imposed at the top marginal income tax rate in effect in each year plus the net investment income tax rate if applicable, and the resulting tax accumulated at the after-tax return in the top bracket, assuming the 30-year Treasury rate plus 3 percent.

For example, an asset purchased for \$1 million and sold for \$2 million two years later would be assumed to have appreciated at an annual rate of 41 percent, and thus have generated income in the first year of \$414,000 and in the second year of \$586,000. If the top marginal rate plus net investment income tax rate in effect were 40.8 percent in each year, and the 30-year Treasury rate 3 percent, the tax due upon sale would be 0.408\*414,000\*(1 + 0.06\*(1 - 0.408)) + 0.408\*586,000 = \$414,000.

Since non-traded assets are taxed only when sold, additional rules specific to non-traded C corporations are necessary to prevent taxpayers from using dividends or other distributions to reduce the value of a non-traded asset prior to sale and thus avoid tax. When an ownership interest in a non-traded C corporation is sold, dividends and other distributions previously paid by the C corporation would be accumulated at the same rate used to accumulate tax under the deferral charge (the 30-year Treasury rate plus 3 percent) and would be added to the sales proceeds for purposes of computing the total gain under the realization-based accrual tax. Taxes paid on distributions would be credited against the tax due, assuming such taxes were paid at the top rate in each year and had accumulated over time at the same interest rate.

When an ownership interest in a non-traded pass-through entity is sold, owners would pay tax on the gain and compute the deferral charge as described above (without regard to the special rules for C corporations) based on the sales proceeds, basis, and timing of investments in the asset. In addition, when a pass-through entity sells a non-traded asset, the pass-through would compute a deferral charge on the asset and pass through that additional tax to owners as a tax surcharge.<sup>30</sup>

Taxpayers would be required to make estimated tax payments for their non-traded assets equal to 2 percent of the taxpayer's basis in their nontraded assets. Estimated tax payments would accrue interest at the 30-year Treasury rate. The estimated tax that could be applied against the tax due on the sale of a non-traded asset would be limited to the estimated tax paid on that asset. Refunds of estimated tax paid on a non-traded asset that declined in value would be available without limit.

The Treasury would have the authority to issue regulations to accelerate the timing of income when further investments in an asset are made shortly before sale that may serve to delay the timing of income under the constant return assumption.<sup>31</sup>

Under the realization-based accrual taxation proposal, death, gifts, and charitable contributions would be treated as realization events for all covered taxpayers. Thus, any unrealized gains on non-traded assets at the time of death, gift, or charitable contributions would be taxed at that time. Losses on non-traded assets could be carried forward without interest and could not be applied against ordinary income. In addition, trusts would be required to value assets and to realize gains no less frequently than once a decade. Taxpayers whose assets fall below the minimum threshold for inclusion in the accrual taxation regime could choose to remain in the regime or exit. If they elect to exit, that exit would be treated as a realization event for non-traded assets and the tax computed as above. Taxpayers must make this choice prior to the filing deadline for the year in which the threshold is crossed.

#### Information Reporting and Administration

The information reporting for and administration of the realization-based accrual tax would generally follow that of the valuation-based accrual tax with some simplifications, much as the realization-based wealth tax offered some simplifications relative to the valuation-based wealth tax. First, large businesses would not be required to report estimated valuations. Second, the requirement that taxpayers provide a series of historical valuations when assets are sold would not be imposed under the realization-based accrual tax. These features are unnecessary under the realization-based approach because this approach relies on realized sales proceeds rather than on valuations for non-traded assets.

#### Transition to a Realization-Based Accrual Tax

The transition to a realization-based accrual tax would proceed in the same way as the transition to a valuation-based accrual tax. A one-time valuation would occur at the end of the taxable year prior to the enactment of the system. Taxpayers would compute tax on unrealized gains (without the deferral charge), could defer this tax until the asset is sold, and would pay interest on the tax while it is deferred.

# The Economic Effects of Taxing Wealth

Taxing wealth under any of the four approaches in this proposal would raise substantial revenues and increase burden. The burden imposed would be highly progressive and would overwhelmingly affect the wealthiest families. The ultimate impact of each approach would depend on the use of funds, and all four approaches could finance policies that would increase living standards for the overwhelming majority of the population.

This section first summarizes the revenues raised and burden imposed by the wealth tax and the accrual tax. It then considers the use of funds and evaluates the approaches through the lens of efficiency. Finally, it considers the choice between the wealth-based approaches and the income-based approaches and the choice between the valuation-based approaches and the realization-based approaches.

#### **REVENUES RAISED**

The wealth tax and the accrual tax described above have been calibrated to raise \$3 trillion between 2021 and 2030, ignoring transitional revenues raised by the accrual taxation proposal and the cost of the proposal for corporate integration.<sup>32</sup> Appendix B provides additional methodological details and discussion of the uncertainties. Separate estimates of the revenues raised by the realization-based versions of each tax are not presented in this chapter due to the limited evidence on which to base an estimate of the differences between the valuation-based approaches and the realization-based approaches.

#### **BURDEN IMPOSED**

Both the wealth tax and the accrual tax would sharply increase the tax burden on the wealthiest households. Table 1 provides a distribution analysis of the two proposals by wealth for 2021. The wealth tax proposal would increase tax burdens by \$450 billion in 2021, with essentially all of that burden being borne by the wealthiest 1 percent of households.<sup>33</sup> The accrual taxation proposal would increase tax burdens by \$376 billion in 2021, with 98 percent of that borne by the top 1 percent. However, the wealth tax would be more heavily concentrated among the very wealthiest households. In fact, 77 percent of the burden of the wealth tax would fall on the top 0.1 percent of households and only 63 percent of the burden of the accrual tax would fall on those households. The accrual tax would also affect more households (0.8 percent of all households) than the wealth tax (0.5 percent). Incomes for the wealthiest 1 percent, measured in accrual terms, would fall by 15 percent under the wealth tax and by 12 percent under the accrual taxation proposal.

Although a distribution by wealth is natural for evaluating proposals to tax wealth, most tax distribution analysis is conducted by income. Table 2 provides a distribution analysis for the two proposals by an accrual measure of income. As the table shows, almost 96 percent of the burden of the wealth tax would be borne by households in the top 1 percent of the income distribution, and almost 91 percent of the burden of the accrual tax would fall on these households. After-tax incomes in the highest-income 1 percent would fall by 13 percent under the wealth tax and by 10 percent under the accrual tax.

Importantly, this analysis uses an accrual measure of income rather than relying on a realization-based measure of income. An accrual measure of income includes investment gains as they accrue, whereas a realizationbased measure of income includes investment gains only when they are

# TABLE 1. Burden Estimates by Wealth

	Wealth tax				Accrual tax				
Wealth class	Share with tax increase	Average tax change	Share of total change	Change in after-tax income	Share with tax increase	Average tax change	Share of total change	Change in after-tax income	
Bottom quintile	0.0%	\$0	0.0%	0.0%	0.0%	\$0	0.0%	0.0%	
Second quintile	0.0%	\$0	0.0%	0.0%	0.0%	\$0	0.0%	0.0%	
Middle quintile	0.0%	\$0	0.0%	0.0%	0.0%	\$0	0.0%	0.0%	
Fourth quintile	0.0%	\$0	0.0%	0.0%	0.0%	\$0	0.0%	0.0%	
80th– 90th percent	0.0%	\$0	0.0%	0.0%	0.0%	\$0	0.0%	0.0%	
90th– 95th percent	0.0%	\$0	0.0%	0.0%	0.0%	\$0	0.0%	0.0%	
95th– 99th percent	0.8%	\$33	0.0%	0.0%	3.2%	\$1,153	1.6%	-0.3%	
Top 1 percent	46.3%	\$336,952	100.0%	-14.6%	71.6%	\$279,317	98.4%	-12.1%	
All	0.5%	\$3,371	100.0%	-3.1%	0.8%	\$2,840	100.0%	-2.6%	
Top 0.1 percent	100.0%	\$2,591,660	76.9%	-30.7%	94.0%	\$1,777,671	62.6%	-21.0%	

Source: Author's calculations.

Note: Estimates are projections for 2021. Due to rounding, "Share of total change" may not sum to 100.

# HAMILTON BROOKINGS

realized. Since the current tax system operates on a realization basis, most distribution analysis is conducted using realization-based measures of income. Doing so ensures alignment between the taxes collected and the income measure, and thus facilitates computation of tax rates. This analysis uses an accrual measure of income instead of a realization-based measure because both the wealth tax and the accrual tax are more tightly linked to accrual income. Notably, since the distribution analysis presented here is for a future year, the accrual income measure is effectively a measure of expected accrual income. In practice, accrual measures of income will be negative in many years.

Most traditional tax distribution analyses assume that behavioral responses to a tax change do not affect the welfare of the people making those changes, an assumption that can be justified by standard economic theory.<sup>34</sup> Thus, these behavioral responses do not affect the tax burden shown in a distribution analysis (Cronin 1999; Hendren 2019; Leiserson 2019; Leiserson and Looney 2018; Treasury 2015b). In other words, a taxpayer who avoids \$1 of wealth tax liability reduces revenues by \$1 but does not materially reduce their own tax burden in avoiding tax. Distribution analyses do, however, recognize that the incidence of a tax change is potentially shifted from the agent bearing the statutory burden of the tax to other actors. Together these assumptions mean that a distribution analysis provides an estimate of the impact of tax legislation on utility or well-being as opposed to income.

	Wealth tax				Accrual tax				
Wealth class	Share with tax increase	Average tax change	Share of total change	Change in after-tax income	Share with tax increase	Average tax change	Share of total change	Change in after- tax income	
Bottom quintile	0.0%	\$0	0.0%	0.0%	0.0%	\$0	0.0%	0.0%	
Second quintile	0.0%	\$2	0.0%	0.0%	0.0%	\$0	0.0%	0.0%	
Middle quintile	0.0%	\$0	0.0%	0.0%	0.0%	\$0	0.0%	0.0%	
Fourth quintile	0.0%	\$2	0.0%	0.0%	0.0%	-\$2	0.0%	0.0%	
80th– 90th percent	0.0%	\$39	0.0%	0.0%	0.1%	\$1	0.0%	0.0%	
90th– 95th percent	0.5%	\$531	1.0%	-0.2%	0.8%	\$374	0.7%	-0.2%	
95th– 99th percent	2.8%	\$2,727	3.2%	-0.6%	7.2%	\$6,356	9.0%	-1.4%	
Top 1 percent	35.4%	\$321,867	95.6%	-12.7%	50.3%	\$256,524	90.6%	-10.1%	
All	0.5%	\$3,371	100.0%	-3.1%	0.8%	\$2,840	100.0%	-2.6%	
Top 0.1 percent	80.8%	\$2,129,272	63.3%	-21.2%	91.9%	\$1,493,858	52.7%	-14.8%	

# TABLE 2. Burden Estimates by Accrual Income

Source: Author's calculations.

Note: Estimates are projections for 2021. Due to rounding, "Share of total change" may not sum to 100.

HAMILTON BROOKINGS This analysis assumes that the economic incidence of both a wealth tax and accrual taxation of investment income lies on wealth owners and the recipients of investment income, effectively assuming that wage rates and rates of return are unchanged by the reforms. This assumption amounts to the assumption that the taxes do not affect the capital-labor ratio because any reduction in wealth by the extremely wealthy is offset by increases in savings by the merely wealthy or foreign investors, because the decisionmaking of firms is assumed not to be sensitive to the tax rate in the tail of the investor wealth distribution, or some combination of these and other factors.<sup>35</sup>

This incidence assumption is consistent with the incidence assumptions used for individual income tax reforms—and thus changes in investor-level taxes on investment income—by the JCT and the Treasury. However, there are no existing analyses of wealth taxes from either agency that describe how the agencies would assess such a tax, though the underlying economic similarities between wealth taxes and taxes on investment income would argue for distributing them in a similar fashion.

The assumption that the economic incidence of taxes on wealth and investment income lies on wealth owners and the recipients of investment income contrasts with the common assumption that the economic incidence of the corporate tax is partially borne by workers. The JCT and the Treasury assume a relatively modest share of the incidence of the corporate tax lies on labor (about 25 percent) and the remainder lies on capital (JCT 2013; Treasury 2015b).

This difference in assumptions is appropriate given the economic differences between the taxes. Taxes on savers, including taxes on wealth and investment income, affect the supply of funds available for investment. Taxes on business entities, including the corporate tax, affect the deployment of capital in business activity. Targeted taxes on wealthy savers likely have little material effect on the financial market equilibrium and thus have little effect on investment decisions. As a result, the burden of such taxes is relatively less likely to shift from wealth owners and recipients of investment income to workers or other groups. On the other hand, general taxes on business activity are more likely to shift, in part, to workers or other groups.

As with revenues, separate estimates of the burden imposed by the realization-based versions of each tax are not presented in this chapter due to the limited evidence on which to base an estimate of the differences between the valuation-based approaches and the realization-based approaches.

Traditional distribution analysis is well suited to changes in existing taxes, but it is less well suited to the creation of a fundamentally new tax or a major structural change like eliminating realization. For an incremental change in the tax rate, the private costs and benefits of the incremental change in avoidances are approximately identical and thus can be disregarded. However, for the creation of a new tax like the wealth tax or a major change in structure of the tax system like eliminating realization, the private costs and benefits of changes in behavior are not necessarily equal and thus can affect well-being.

In the case of the taxation of wealth there are four major possibilities worth considering:

- Taxpayers may stop engaging in costly avoidance of taxes through strategies relying on exploiting realization, since realization is no longer as important a trigger of tax liability.
- Taxpayers may start engaging in costly avoidance of the wealth and mark-to-market income taxes through strategies that were irrelevant under the realization-based tax system.
- Taxpayers may avoid tax through increased charitable contributions, reducing revenues while generating gains for beneficiaries and stakeholders of the recipient organizations.
- Taxpayers may transfer assets to other individuals to reduce or avoid tax, thus reducing revenues while generating gains for transfer recipients at relatively modest costs for the donor.<sup>36</sup>

Due to the limited evidence available on the behavioral responses to taxes on wealth and investment income, I do not attempt to quantify how these factors would affect the distribution analyses described above. However, these factors would not change the qualitative nature of the results. The proposed taxes on wealth would sharply increase burdens at the top of the distribution and would have only modest effects on the rest of the distribution.

Likely the most important caveat to the basic analysis is that the burden analysis presented here assumes that tax evasion affecting business assets reduces revenues but does not reduce burden. (See appendix B for additional discussion of the assumptions underlying the revenue estimates.) However, to the extent the costs of this evasion are incurred under the existing income tax, this evasion would also be reflected in reduced burden. As a result, the burden impacts shown in tables 1 and 2 are likely somewhat conservative, in the sense of overstating the increase in burden that would result from the proposals.

A portion of the revenue loss due to avoidance would also, as a result of these adjustments, reduce burden. This adjustment would be largest for avoidance resulting from transfers to other taxpayers. The increase in charitable contributions also has the potential to reduce burden—offering an implicit tax cut—for low- and moderate-income households, making them better off even without considering the use of the revenues raised. This impact would almost certainly be modest relative to the impact resulting from the use of funds, however.

Finally, asset price effects could affect the distribution analysis. Should asset prices fall upon enactment of the tax, a portion of the burden shown above would shift from those holding assets in the future to those holding assets at the time of enactment. (To the extent such effects are anticipated, of course, these effects could occur even prior to enactment of the legislation and the burden could be borne by those holding assets at key moments in the legislative process when the probability of enactment increases.) Shifting via asset prices is not typically reflected in distribution analysis, though to the extent it occurs it should be reflected in the more fulsome modified analysis sketched here. However, as discussed in appendix B, asset price effects are likely to be modest in the case of the taxes proposed here.

# **COMPLIANCE AND ADMINISTRATIVE COSTS**

Adopting a wealth tax or accrual taxation of investment income would impose additional compliance and administrative costs. Compliance costs are costs borne by the public in fulfilling their tax obligations, and administrative costs are those incurred by the IRS in administering the tax. Although these costs are central in the public debate about taxing wealth, there is relatively little evidence on which to base an estimate of these costs.

The compliance costs most relevant for an assessment of proposals to tax wealth are those incurred in filing returns, such as the costs for legal, accounting, and appraisal services. Importantly, the net benefits and costs of the increase in planning to avoid a wealth tax or accrual taxation of investment income are already reflected in the revenue and tax burden estimates above. The costs of this planning are one of the reasons the dollar-valued burden in the distribution analysis exceeds the dollar-valued increase in revenues. However, the compliance costs associated with fulfilling baseline obligations are not included in the burden estimates in the distribution analysis.

Relatively little evidence is available on which to base an estimate of the direct compliance costs for wealth or accrual taxation. I start by borrowing an approach from the literature on estate taxation, where a back-of-theenvelope estimate can be obtained from information about deductible expenses on estate tax returns (Davenport and Soled 1999; Gale and Slemrod 2000, 2001; Schmalbeck 2001). Estate tax returns filed in 2017 with gross estate in excess of \$20 million claimed deductions for attorneys' fees equal to 0.2 percent of the gross estate and deductions for other expenses (a catch-all category that includes appraisal fees) of 0.4 percent. If half of these costs are attributable to tax compliance obligations—the assumption made for estate tax purposes in the Davenport and Soled analysis—compliance costs would amount to 0.3 percent of wealth.

The proposed wealth tax here differs from the estate tax on two main dimensions. First, while the estate tax relies on self-reports, the proposed wealth tax would involve substantial information reporting. This would tend to increase costs by expanding the universe of affected assets and creating additional reporting obligations and would tend to reduce costs by facilitating shared reliance on a single valuation and concentrating valuation responsibilities where expertise is greatest. Second, the wealth tax would apply annually, offering scope for cost savings through economies of scale and repeated reliance on similar methods. Lacking direct evidence, I assume these two factors allow for a one-third reduction in compliance costs per dollar of gross wealth under the wealth tax relative to the estate tax, primarily as a result of the centralization of valuation costs due to information reporting.

Since the expense ratios mentioned above are computed using reported estate tax data, the value of the gross estate is already reduced by evasion and some forms of avoidance. In applying this cost ratio here, I therefore apply the expense ratio after evasion and with half of the assumed avoidance reflected in the wealth value.<sup>37</sup>

Comparing total compliance costs to wealth tax revenues yields a ratio of 19 percent. This ratio exceeds the ratio of the expense ratio to the tax rate because of the exemption and the assumption that compliance costs should be computed on a base that does not reflect all avoidance assumed under the wealth tax itself.

The ratio of compliance costs to revenues for the accrual tax could be larger or smaller than the ratio under the wealth tax. The accrual tax

imposes a smaller tax on more people, which would tend to increase the ratio of compliance costs to revenues because the primary driver of costs is the measurement of wealth and income. On the other hand, the accrual tax would eliminate compliance costs associated with the current-law realization-based system of taxation for those under the new system and would not require filing an additional return, both of which would tend to reduce compliance costs. Notably, as discussed in the revenue estimation section above, the more modest increase in rates under the accrual proposal results in a smaller avoidance response to the accrual taxation, highlighting one set of trade-offs between the various types of costs resulting from the different proposals.

One recent estimate of the compliance costs of the income tax suggests these costs are just over 10 percent of revenues (Marcuss et al. 2013). However, the authors suggest this is a lower bound since it does not include the costs of information reporting or withholding. This comparison suggests that the compliance costs of a wealth tax or accrual taxation of investment income would exceed those of the existing income tax, but not unduly so given the highly progressive nature of the proposed tax instruments and their focus on strengthening the taxation of income from wealth, one of the more challenging types of income to tax.

Since the primary driver of compliance costs is the measurement of income and, in particular valuation, the realization-based approaches would reduce compliance costs relative to the valuation-based approaches. In the extreme, if the realization-based approaches were to incur no additional costs for valuation, they would potentially cut compliance cost by more than half relative to the valuation-based approach, assuming all other expenses reported on estate tax returns are attributable to valuation costs. However, as discussed in greater detail below, adopting a realization-based system would open the door to additional tax avoidance strategies, and rules to prevent these types of avoidance strategies would come with their own attendant compliance costs. The relative merits of the two approaches depend on the costs and benefits of this trade-off.

A robust finding of the literature of tax administration is that the private compliance costs of tax collection far exceed the administrative costs incurred by the IRS. The IRS estimates that it incurred costs of 34 cents per \$100 of gross tax collected in fiscal year 2018, or 0.34 percent (IRS 2019). This cost has declined from a recent high of 53 cents in fiscal year 2010. However, the cost of administering a wealth tax or accrual taxation of investment income would likely exceed this average. Davenport and Soled (1999) estimate that the administrative costs for the federal estate

tax amount to 0.6 percent of revenues raised. Pichet (2007) reports that the French Ministry for the Economy and Finance estimated administrative costs of 1.6 percent for the French wealth tax in 1997. This was modestly higher than the 1.4 percent average for French tax collections.

As the recent decline in costs for the IRS indicates, there is no single level of administration costs for a single tax. Higher administration spending can reduce the tax gap, reduce private compliance burdens, or deliver other benefits, while lower administration spending reduces the need for revenues to pay for that spending. The same would be true of reformed taxes of wealth. To generate a ballpark estimate for appropriate spending on these reforms to the taxation of wealth, I scale the recent high-water mark for operating costs relative to revenues raised by the ratio of wealth tax costs to average costs for France in 1997, which yields a cost per dollar of revenues of 0.6 percent. Applying this percentage to the \$3 trillion revenue target for the next decade would suggest an increase in IRS appropriations of \$18 billion over that time period, or about 12 percent. Notably, IRS appropriations have declined by about 20 percent in real terms since the recent high-water mark in 2010. An increase in appropriations at more than this scale would likely be merited merely to enforce existing tax law (CBO 2018; Sarin, Summers, and Kupferberg 2020).

# THE USE OF FUNDS

The primary purpose of taxation is raising revenues to finance public expenditure. An analysis of the revenue and burden impacts of a policy is missing the beneficial impacts stemming from the use of funds and thus ignores the primary purpose of taxation. In cases where policymakers do not specify the use of funds, this is an unavoidable limitation of the analysis, but it remains useful to illustrate why funds are raised and what uses they are put to, and how that in turn affects the revenue and burden analyses.

This section presents welfare analyses of two hypotheticals for each proposal: a spending program that offers the same benefit to all adults, and a spending program that offers benefits proportionate to income. For illustrative purposes, spending under both programs is assumed to be lump sum in nature, causing no behavioral changes and generating no benefits beyond the pure transfer. As such, these analyses understate the proposal's benefits for low- and middle-income families to the extent that public programs are valued above cost. Table 3 illustrates burden estimates of the dollar-valued gains or losses as a percent of income under each use of funds and for both proposals. Under either assumption about the use of funds, both proposals would deliver meaningful increases in living standards for the overwhelming majority of Americans and would be accompanied by declines in living standards for the wealthiest Americans.

#### TABLE 3.

# Burden Estimates with Spending

	Wealth tax				Accrual tax				
Wealth class	Per capita spending		Proportional to income spending		Per capita spending		Proportional to income spending		
	Average net transfer change	Change in after- tax income	Average net transfer change	Change in after-tax income	Average net transfer change	Change in after- tax income	Average net transfer change	Change in after-tax income	
Bottom quintile	\$1,691	6.1%	\$443	1.6%	\$1,697	6.2%	\$444	1.6%	
Second quintile	\$1,941	4.2%	\$800	1.7%	\$1,948	4.2%	\$803	1.7%	
Middle quintile	\$2,026	3.2%	\$1,124	1.8%	\$2,033	3.2%	\$1,128	1.8%	
Fourth quintile	\$2,114	2.4%	\$1,566	1.8%	\$2,121	2.4%	\$1,572	1.8%	
80th– 90th percent	\$2,258	1.6%	\$2,564	1.8%	\$2,266	1.6%	\$2,573	1.8%	
90th– 95th percent	\$2,367	1.2%	\$3,769	1.8%	\$2,375	1.2%	\$3,783	1.8%	
95th– 99th percent	\$2,340	0.6%	\$8,127	1.9%	\$1,228	0.3%	\$7,036	1.7%	
Top 1 percent	-\$334,531	-14.5%	-\$292,510	-12.7%	\$276,887	-12.0%	-\$234,711	-10.2%	
All	-\$1,340	-1.2%	-\$1,340	-1.2%	-\$801	-0.7%	-\$801	-0.7%	
Top 0.1 percent	\$2,589,193	-30.6%	\$2,436,117	-28.8%	\$1,775,196	-21.0%	\$1,621,558	-19.2%	

Source: Author's calculations.

Note: Due to rounding of the thresholds for each tax, the revenues raised by the two proposals do not match exactly and thus transfers to low-income families do not match exactly.

# HAMILTON BROOKINGS

# ASSESSING THE ECONOMIC IMPACTS THROUGH THE LENS OF EFFICIENCY

An assessment of the proposals in terms of efficiency amounts to the aggregation of the welfare impact of the proposals (in dollar values) across taxpayers, assuming that revenues are returned to individuals through government spending valued at cost or lump-sum tax rebates. In other words, the efficiency impact of each proposal is the arithmetic sum of the dollar-value impacts presented in table 3, shown in the row labeled "All," plus compliance costs.<sup>38</sup>

This analysis indicates that these proposals, when combined with lumpsum spending of the resulting funds, are examples of equity-increasing and efficiency-decreasing policies. Of course, this analysis, like most tax analyses, assumes that the spending has no spillover benefits. Were the spending to have such benefits, as many public programs do, these proposals could increase both equity and efficiency (Hendren and Sprung-Keyser 2019).

However, just as the traditional distribution analysis must be modified for the analysis of these taxes, this efficiency analysis also requires modification. Notably, both the reductions in burden attributable to inframarginal benefits from tax avoidance and the reduction in burden attributable to reduced costs of avoidance of existing taxes (in cases where these avoidance opportunities are no longer valuable after the proposal is implemented) would serve to reduce the costs borne by affected taxpayers. The increase and acceleration in charitable giving that would result from the proposal would deliver additional benefits.<sup>39</sup> Just as the increase in burden shown in tables 1 and 2 above is likely conservative, in the sense of slightly overstating the increase in burden, the reduction in efficiency implicit in table 3 is also likely conservative, in the sense of slightly overstating the reduction in efficiency.

#### COMPARING WEALTH-BASED APPROACHES AND INCOME-BASED APPROACHES

Wealth taxes and accrual taxation of investment income are similar on many dimensions. They would both raise substantial revenues, overwhelmingly from the wealthiest Americans. And they would both reduce the reliance on realization under the current tax system. This section reviews some of the differences between the two approaches in more detail.

As proposed above—and consistent with most proposals in the public debate—the wealth tax is an add-on tax that is imposed in addition to the

income tax, and accrual taxation is a reform to the existing income tax. Although this difference is not fundamental to the two approaches, it is responsible for some of the major differences in the impacts of the two proposals on the revenue and burden effects presented above.

The wealth tax collects revenues from all assets while the accrual tax collects revenues only from those assets that are taxed relatively more lightly under the existing income tax and only to the extent they are lightly taxed. Thus, adopting an accrual tax would result in little or no tax increase on holders of debt securities and consumer goods such as vehicles and yachts. Debt securities are typically fully taxable, at least when held by taxable investors, and consumer goods generate untaxed consumption and rarely appreciate in price. On the other hand, an accrual tax would result in substantial revenues from publicly traded equities, which are lightly taxed at present, and some revenues from privately held businesses and rental real estate. The increase in tax on the latter two classes of assets would be moderated by the fact that they generate income that is already taxed under the income tax.

Suppose, for example, that publicly traded equities will return 8 percent and a work of art will experience 4 percent nominal appreciation while generating a 4 percent return in the form of consumption. Because the value of the work of art reflects the value of the consumption, a wealth tax will impose the same proportionate tax increase on the two assets, while an accrual tax will impose a larger tax increase on the equities than on the work of art.

These differences between the wealth tax and accrual tax presented here explain why—to raise the same revenue—the exemption for the accrual tax proposal is smaller than for the wealth tax. At the same time, the more modest increase in rates under an accrual tax is partially responsible for the higher ratio of revenues to aggregate burden under the accrual tax proposal. Of course, alternative policy designs are also possible. An accrual tax rate could raise additional revenues from those at the very top of the income distribution. A lower-rate wealth tax could be applied beginning at a lower wealth threshold to more closely approximate the distribution of the burden under an accrual tax.

Because the accrual tax is proposed as a reform to the existing income tax, it allows for more seamless integration with the existing income tax. Under this approach policymakers can align the rates on labor and nonlabor income more closely, which may offer advantages in reducing certain types of avoidance since it is often not possible for taxation authorities to perfectly distinguish between the two types of income. (However, the need to value businesses independent of the human capital of the owner-employee means this type of issue will remain a challenge under both tax reforms.)

The fundamental economic difference between wealth taxation and accrual taxation is the treatment of risky or uncertain returns. Income taxes adjust in response to higher- or lower-than-expected returns, and thus implicitly share risk between the taxpayer and the government, while wealth taxes do not adjust in response to variation in (contemporaneous) returns. However, to the extent wealth taxes are paid out of wealth—consistent with the assumption made in the estimates presented above—the future wealth tax base would reflect the history of uncertain past returns.

This variation in returns could reflect both general market risk and implicit labor income reflected in asset values. Guvenen et al. (2019) argue that a wealth tax based on the book value of assets is efficiency enhancing relative to a capital income tax because it shifts the tax burden from those who use wealth productively to those who use wealth unproductively. In contrast, Kopczuk (2019) argues that accrual taxation would place a relatively greater burden on rents than a wealth tax, and this would be a primary advantage of the accrual taxation approach. One interpretation of the differences between these two arguments is that the authors are making different assumptions about the source of excess returns and the responsiveness of those returns to taxation, with correspondingly different implications for the relative merits of the two approaches to taxation.<sup>40</sup>

As a result of the different treatment of uncertainty, the income tax approach would generate more volatile tax payments. For the wealthy taxpayers who would be affected by taxes like those proposed in this chapter, simple volatility is of relatively little economic importance, given those taxpayers' ready access to financial markets to borrow and lend. However, volatility may have more significant effects for the political viability and sustainability of the tax. In addition, to the extent states conform to the federal income tax base, the increased volatility of revenues may have implications for their budgeting processes.

The wealth tax approach is more naturally applied only to the extremely wealthy through a simple exemption, while accrual taxation requires a more complicated phase in if it is to be limited to the extremely wealthy. That said, an exemption from the accrual tax could be structured as an exemption on lifetime or annual gains, which would mitigate this advantage of the wealth tax, although such approaches do not rule out the possibility of a taxpayer of more modest wealth paying the tax. Finally, as discussed in greater detail below, the income tax approach would be clearly constitutional whereas the wealth tax approach would face greater risk of being declared unconstitutional. Though not an economic distinction between the two approaches, this is potentially the most important difference for policymakers.

# COMPARING VALUATION-BASED APPROACHES AND REALIZATION-BASED APPROACHES

Perhaps the most common criticism of wealth taxation and accrual taxation, apart from those criticisms grounded in opposition to increased taxation of the wealthy, is that valuation poses an insurmountable problem. As described above, if valuation is a chief concern, it is possible to impose both a wealth tax and an accrual taxation of investment income on a realization basis.

Valuation-based approaches, if successful, provide more accurate income measurement and thus deliver a more robust tax base that is less subject to avoidance and evasion. Realization-based approaches, if successful, reduce the frequency of required valuations and the associated cost without opening the door to excessive rates of avoidance or evasion.

The choice between the valuation-based approach and the realization-based approach thus depends primarily on the cost of the required valuations, the avoidance under a valuation-based system, the avoidance under a realization-based system, the costs of actions taken to avoid tax under a realization-based system, and the costs of litigation under both systems.

The realization-based approach avoids the costs of conducting valuations and eliminates the cost of litigation associated with valuation disputes. However, it does so by creating additional opportunities for tax avoidance. In this case, tax avoidance seeks to exploit the differences between the values resulting from annual valuations and the pattern of imputed values resulting from a deferral charge. Taxpayers might aim to artificially inflate basis shortly before a non-traded asset is sold to defer the timing of income, for example. Moreover, rules to prevent these types of avoidance would come with their own attendant compliance costs.

If the required valuations are expensive and costly to litigate and the realization-based system offers limited scope for avoidance, the latter would be preferable. If, on the other hand, the realization-based system would result in substantial tax avoidance, especially though not exclusively if the costs of that avoidance are also high, the valuation-based system would be preferable.

As discussed above, a back-of-the-envelope estimate of the compliance costs of the valuation-based versions of the tax is about 0.2 percent of wealth. The realization-based versions potentially could offer lower costs. In evaluating this trade-off, it is important to keep in mind the incidence of the changes. The reduction in compliance costs is a benefit for the taxpayers who would otherwise incur them. The reduction in revenue resulting from increased avoidance is borne by the beneficiaries of the spending that no longer occurs or the taxpayers who bear the burden of other taxes increased to offset the loss.

Thus, absent any offsetting policy changes, the shift from valuation-based approaches to realization-based approaches almost certainly benefits the wealthy, who face lower compliance costs and do not bear the burden of the resulting reduction in spending. If instead top income tax rates are increased to compensate for the potential revenue loss, a key question becomes how the compliance costs for the valuation-based version of the tax compare to the burden imposed by the higher tax rates under the realization-based version.

In addition to the core issues around valuations, the choice between valuation and realization raises a couple of more modest issues. First, any hybrid system that applies a realization-based approach to certain assets and a valuation-based approach to other assets would require rules to police this boundary.

Second, realization-based systems increase the scope for tax avoidance based on conjectures about future policy changes. Although all policy regimes are temporary, the possibility that a realization-based regime could be repealed, or the tax rates reduced substantially, would create a potentially strong incentive for wealthy taxpayers to hold on to assets under such a regime. The proposals described here would apply the tax rate in effect in each year to the gains accrued in that year, moderating this impact. However, policymakers could still change this provision itself when enacting future legislation.

# Questions and Concerns

# 1. Will illiquid taxpayers be able to pay taxes on wealth?

A wealth tax or accrual tax on investment income would require taxpayers to pay tax in years where they may not realize substantial income. However, for taxpayers who are affected by the approaches to reform described in this chapter, this is not a significant concern. These approaches apply only to taxpayers with at least \$16.5 million in gross assets (\$8.25 million for single taxpayers) and such taxpayers have ready access to financial markets to finance the tax payments. However, were this concern to be judged to be more significant, the realization-based versions of both taxes would align the timing of tax with the realization of income on non-traded assets. In addition, whereas the approaches in this chapter do not provide taxpayers with the opportunity to defer payment of tax with interest, such a provision could be added should policymakers deem it desirable.<sup>41</sup>

# 2. Will volatile asset prices impose too costly a burden under accrual taxation?

A related concern is that asset prices are volatile, and thus taxpayers may find themselves with high incomes in certain years and negative incomes in other years under accrual taxation of investment income. If taxpayers are liquidity constrained, they may not be able to manage the resulting swings in tax liabilities. However, the practical relevance of this concern is limited for approaches like those detailed in this chapter that apply only to relatively wealthy taxpayers for the same reason that the liquidity constrained. To the affected taxpayers generally are not liquidity constrained. To the extent volatile tax liabilities matter, it may be more for the political viability of the tax than for the economic viability.

On the other hand, volatile tax collections have the potential to be a more significant concern for state governments to the extent that they conform to the federal income tax base. However, to the extent this is a concern for state governments, they could adopt a smoothing provision either for taxpayers in computing tax payments or in government accounts, such as through increased use of rainy-day funds or inclusion of only a portion of the accrued gains in income each year.<sup>42</sup>

# 3. How does taxing wealth compare to increased taxation of business income at the entity level?

Corporate profits are an important source of the capital gains and dividends received by individuals. Thus, one alternative to taxing wealth at the investor level would be to increase the taxation of business income at the entity level. In this sense, an increase in the corporate tax rate could be viewed as an alternative way to increase taxes on wealth.

Taxing wealth owners has several advantages relative to increased taxation of business income. First, although corporate taxes are highly progressive, targeted investor-level taxes are likely superior in focusing the burden more precisely on the wealthy and limiting the shifting to other actors, as noted in the discussion of the economic incidence of taxes on savers and firms above. Second, addressing tax avoidance strategies at the individual level requires reforms to taxation at that level, such as reforming the taxation of wealth as discussed here. Third, corporate equity is only one source of capital gains. Capital gains can also arise from pass-through property, real estate, and other assets. Finally, corporate taxes raise their own challenges with avoidance via profit shifting (though these could in turn be addressed, at least to some extent, with other reform proposals).

Notwithstanding these advantages of investor-level taxation of wealth, there is a strong case for further increasing taxes on business income at the entity level, which could be combined with a shift to cash-flow taxation, to limit the extent to which income escapes taxation due to tax preferences at the investor level or because it is attributable to foreign investors.

# 4. Why not increase estate and gift taxes in lieu of taxing wealth?

The income tax is the primary source of federal revenues and the major driver of the progressivity of the federal tax system. However, the existing income tax fails to tax the income of the wealthy in an effective manner. As outlined in this chapter, taxing wealth through either a wealth tax or accrual taxation of investment income serves to address the limitations of the existing income tax, strengthening the income tax base. Reforms to estate and gift taxes could raise substantial revenues from a similarly wealthy population—and are merited in their own right—but they would not substitute for an effort to strengthen the income tax base.

# 5. Should the income tax be indexed for inflation under the accrual tax?

Though many provisions of the income tax, such as the tax brackets, are adjusted annually for inflation, the tax code makes no attempt to adjust the measurement of capital income for inflation. As a result, the capital income tax base is nominal income rather than real income. In principle, real income provides a superior measure of ability to pay. However, the technical challenges of comprehensively adjusting income flows for inflation across the entire tax code have traditionally discouraged any attempt to implement such adjustments.

As long as inflation remains low, the potential benefits of adjusting the tax code for inflation are modest. Such adjustment would reduce tax rates on investment income and potentially reallocate tax burdens from borrowers to lenders. However, especially under the approaches to reform set forth here, which apply only to the tail of the wealth distribution, indexing investment gains would be a costly, regressive tax cut (absent other offsetting policy changes). There is little reason to incur significant fiscal costs for that purpose.

# 6. What constitutional issues are raised by taxing wealth?

The U.S. Constitution grants to Congress a broad taxing power. It also requires that direct taxes be apportioned according to population, meaning that the revenues collected from each state must be proportional to the population of that state. However, the Constitution does not itself define what a direct tax is. Famously, during the Constitutional Convention a delegate asked what the precise meaning of direct taxation was, and no one answered (Ackerman 1999).

In 1895 the Supreme Court declared the United States' second federal income tax to be unconstitutional as an unapportioned direct tax. The country's first federal income tax had been upheld 15 years earlier, though the legal issues raised in that case had been somewhat different. Subsequently, Congress passed, and the states ratified, the 16th Amendment, granting Congress the power to create an income tax.

If enacted, a federal wealth tax would certainly be challenged in the courts as an unapportioned direct tax. Among other arguments, opponents of a wealth tax would likely argue that a tax on real property is a direct tax and thus a tax on wealth is a direct tax because it embeds a tax on real property. Proponents would argue that a wealth tax is not a direct tax and, potentially, that a wealth tax is an income tax (the motivation for the proposal in this chapter). There is case law that both proponents and opponents could point to as supporting their view, and the resolution of such a case would likely depend on the makeup of the Court at the time the case is heard.

Mark-to-market taxation would likewise almost certainly be challenged before the Supreme Court, but the case for constitutionality here is unambiguous (Miller 2016b). The 16th Amendment gave Congress the power to tax incomes, and a mark-to-market income tax is clearly a tax on incomes. Indeed, provisions for mark-to-market taxation already exist in the Internal Revenue Code in a variety of places, including Section 475 (for securities dealers), Section 1256 (for certain types of financial contracts), Section 877A (for certain expatriates), and Sections 1272 and 1273 (original issue discount for debt securities), among others.

Arguments for the unconstitutionality of mark-to-market taxation typically assert that realization is a constitutional requirement, not merely an administrative convenience. The Supreme Court upheld this reasoning in a 1920 decision (Eisner v. Macomber), ruling that a stock dividend in which the taxpayer did not receive cash was not income under the 16th Amendment. However, the Court has contradicted or limited this reasoning in subsequent cases at least four times (Miller 2016b) and has never applied it to any existing provision of the tax code that imposes accrual taxation.

# Conclusion

To keep past promises and finance new spending that meets the needs of the moment, the federal government will eventually need to collect more revenue. In light of high and rising inequality in both income and wealth, as well as the structural weaknesses of the tax system as it applies to the wealthy today, reforms to the taxation of wealth are a natural part of the solution. Four approaches to taxing wealth could all raise substantial sums from the wealthiest Americans: an annual wealth tax, a realization-based wealth tax, accrual taxation, and accrual taxation of publicly traded assets combined with realization-based taxation of non-traded assets.

# Appendix A. Taxation of Wealth and Investment Income Today

Understanding how wealth and investment income are taxed requires an understanding of the legal forms used to conduct business in the United States. Business activity is generally conducted in one of two forms: a traditional C corporation or a pass-through business, such as an S corporation, partnership, or sole proprietorship.

Traditional C corporations are responsible for paying an entity-level corporate income tax at a rate of 21 percent. Corporate taxable income consists of business receipts and investment income less the cost of goods, current expenses, interest payments, and depreciation of capital investments.

Dividends paid by C corporations are subject to investor-level dividend taxes, generally at preferential rates of 0, 15, or 20 percent (depending on income level). Dividends not eligible for these preferential rates are taxed according to the ordinary rate schedule, up to a maximum of 37 percent. In addition, dividends are also subject to the net investment income tax of 3.8 percent for married taxpayers with incomes above \$250,000 (\$200,000 for single taxpayers).

Although the income of C corporations is potentially subject to tax at both the entity level and the investor level, empirical estimates suggest that double taxation is more the exception than the norm, and income is likely taxed less than once in many cases. Only about one-quarter of corporate stock is held by taxable investors (Burman, Clausing, and Austin 2017; Rosenthal and Austin 2016). Tax-exempt investors include pension funds, nonprofits, and foreign investors. Moreover, about 40 percent of corporate investment is debt-financed, which largely escapes taxation at the entity level. Finally,

businesses have been able to deduct 50 percent or more of the value of equipment investment since 2008 and are able to deduct 100 percent of the value of equipment investment placed in service after September 27, 2017, and before January 1, 2023.

Pass-through businesses are not subject to an entity-level tax. Instead, the items of income, gain, deduction, and credit are passed through to the owners, who include those items on their individual income tax returns. These items are taxed under the same rules that apply to other sources of income, subject to certain exceptions, and thus are subject to progressive tax rates up to a maximum of 37 percent in the case of ordinary income. Capital gains and dividend income received by a pass-through business are passed through to the owner and taxed at the preferential rates that would apply had those forms of income been received by the taxpayers themselves. Income from a pass-through business may be subject to the net investment income tax of 3.8 percent. In addition, income from a pass-through business may be eligible for a deduction of up to 20 percent that reduces the top income tax rate to 29.6 percent (33.4 percent including the net investment income tax).

In contrast to C corporations, distributions from pass-through businesses are generally exempt from tax. S corporation shareholders' and partners' basis increases in accordance with income passed through from the business and decreases with distributions from the business. These adjustments in basis prevent double taxation of income retained in the pass-through business when a pass-through business is sold.

C corporations and S corporations are required to pay reasonable compensation to employee owners, whereas owners of other types of pass-through businesses are not required to distinguish between labor income and capital income. Profits from these types of businesses thus reflect a mix of both labor and capital income.

Historically, C corporations accounted for the vast majority of business activity, but pass-throughs have grown markedly since the early 1980s and now account for 40 percent of all business receipts (appendix figure A1).

As noted above, businesses may deduct interest paid from their taxable income. Individuals pay tax on interest income at ordinary tax rates, up to a maximum of 37 percent plus the net investment income tax of 3.8 percent. Taxpayers who own debt securities that do not pay interest on an annual basis but pay implicit interest (because their price is less than face value) must include imputed interest in their income each year.

BROOKINGS

Owners of any asset, whether stock in a C or S corporation, a partnership interest, personal use property, or otherwise, are potentially subject to capital gains taxes when they sell the asset. The capital gain is the excess of the sales proceeds over the basis. The basis of an asset is the purchase price adjusted for certain subsequent transactions, such as further investments in the asset. Long-term capital gains, defined as gains resulting from assets held for more than one year, are typically subject to preferential rates of 0, 15, or 20 percent (depending on income level). Short-term capital gains, defined as gains on assets held for one year or less, are taxed at ordinary rates. Capital gains are also subject to the 3.8 percent net investment income tax for taxpayers with incomes above \$250,000 (\$200,000 for single taxpayers). As noted above, a capital gain is said to be realized when the asset is sold. Thus, capital gains are said to be taxed on a realization basis.<sup>43</sup>

The tax code offers an array of preferences for investment income. Employer retirement plans and individual retirement accounts provide taxpayers with the opportunity to avoid paying tax on their investment income. Retirement accounts are one of two types: traditional or Roth. In a traditional account, taxpayers receive a deduction for contributions, pay no tax on accruing income within the account, and pay tax at ordinary rates on distributions. In a Roth account, taxpayers receive no deduction for contributions and pay no tax on both income accruing within the account and distributions.



# APPENDIX FIGURE A1. Share of Business Receipts by Entity Type, 1980–2013

Owner-occupied housing is also tax preferred. Taxpayers pay no tax on imputed rent (i.e., the rent the taxpayer would have received had they rented out the house rather than live in it themselves) but may deduct mortgage interest. Taxpayers may also exclude the first \$500,000 of capital gains on the sale of a primary residence (\$250,000 for single individuals).

Unrealized capital gains on assets held by a taxpayer at death are exempt from tax under the provision for step-up in basis at death. Under this provision, the basis of a taxpayer's assets is increased, or stepped up, to the market value at the time of death thus exempting such gains from income taxation. Heirs then pay tax only on gains that occur after the step-up in basis. Prior gains are wiped out for purposes of the income tax.

Owners of real estate may also swap one real-estate asset for another in what is known as a like-kind exchange. If this transaction meets certain restrictions, the swap is not treated as a sale and thus it does not result in capital gains taxes.

# Appendix B. Methodology for Revenue Estimates

Estimates of the revenue raised by reforms to the taxation of wealth rely on estimates of the value of wealth, the value of unrealized appreciation on investment assets, and the behavioral responses to the proposed reforms.<sup>44</sup> The United States does not presently have a wealth tax, so there is no existing administrative assessment of wealth. Estimates of wealth generally rely on one of three methods: survey data on wealth, inferences about wealth from estate tax data, and inferences about wealth from income tax data (Batchelder and Kamin 2019; Bricker et al 2016; Kopczuk and Saez 2004; Saez and Zucman 2016, 2019; Smith, Zidar, and Zwick 2019; Zucman 2019). The estimates presented here rely on the Survey of Consumer Finances (Board of Governors of the Federal Reserve System [Federal Reserve Board] 2016), augmented with information from the 2018 Forbes 400.<sup>45</sup>

In estimating wealth tax revenues, I first reduce the value of private business wealth by 16 percent as an estimate of tax evasion based on estimated evasion rates under the income tax for the income of S corporations and partnerships (Dubois et al. 2016).

To reflect tax avoidance, I further reduce the value of all wealth (including the already reduced private business wealth) by 16 percent. This estimate reflects an underlying assumed semi-elasticity of avoidance of 8 percent with respect to the wealth tax rate. This estimate of avoidance includes responses such as charitable giving, expatriation, increased consumption spending, and any form of legal tax planning.<sup>46</sup>

I assume both the wealth tax and private compliance costs of the wealth tax are paid out of wealth. Although limited evidence is available on the consumption spending of the very wealthy, the evidence that does exist suggests the ratio of consumption spending to wealth is small (Fisher et al. 2018). The assumption that the tax is paid entirely out of wealth would be slightly conservative—in the sense that it underestimates tax revenues—relative to an assumption that a portion was paid out of consumption spending. The assumption that the tax is paid out of wealth not only has a direct effect on future wealth tax liabilities, but also reduces future income tax liabilities resulting from current-law taxes on investment income.

I compute revenue estimates for the 2021–30 period using the revenue estimates for 2021 and a simplified off-model calculation rather than an explicit panel tax model. I inflate the net-of-avoidance 2021 wealth tax revenues by a factor of 11.9, reflecting a baseline wealth growth rate of 6 percent reduced by the 2 percent wealth tax rate and the 0.2 percent ratio of compliance costs to wealth, compounded over nine years.<sup>47</sup> I then subtract an income tax offset equal to 0.70 times 2021 revenues reflecting erosion of the income tax base due to the wealth tax payments and to compliance costs.<sup>48</sup>

Under these assumptions, the absolute wealth of the affected population would continue to grow without limit. However, as a share of baseline wealth, it would decrease geometrically. In part, this reflects the absence of any churn in the affected population, including the absence of any explicit role for mortality, savings, or entrepreneurship in the evolution of wealth. The exclusion of these factors would likely result in a modest understatement of revenues in the first decade. These factors would be essential in the development of longer-term revenue estimates.

Estimates of the revenue raised from accrual taxation rely on the same estimates of wealth. This analysis focuses on three types of assets that likely account for the majority of potential revenues under such an approach: (1) publicly traded equities, (2) private business, and (3) real estate. Publicly traded equities are assumed to return 8 percent. Private businesses are assumed to generate nominal capital gains of about 3 percent. This capital gain is in addition to the ordinary income that flows through to the owner on schedules C, E, and F on the tax return. The return assumption is based on the nominal gains on real estate assets held by nonfinancial noncorporate businesses in the Integrated Macroeconomic Accounts. Finally, directly held real estate assets are assumed to generate nominal capital gains of 3.8 percent based on the rate of return on household real estate holdings in the Integrated Macroeconomic Accounts. As under the wealth tax, I reduce mark-to-market incomes to reflect evasion and avoidance. I reduce the estimate of accrual income from private businesses by 16 percent to account for evasion, parallel to the reduction in private business wealth under the wealth tax. I then reduce the three sources of accruing investment income (corporate equities, private businesses, and real estate) by between 8 and 18 percent. To achieve greater internal consistency between the wealth tax and accrual taxation revenue estimates, I compute a wealth-tax-equivalent rate for the accrual tax for each of the three covered asset types and apply the same 8 percent semielasticity of avoidance used for the wealth tax estimate.<sup>49</sup>

Based on the assumed levels of wealth and income, income tax revenues are calculated using the National Bureau of Economic Research (NBER) Internet TAXSIM model (NBER 2019). I convert the 2021 revenue estimate for the accrual tax to an estimate of revenues for the 2021–30 period using the same methods used for the wealth tax above. As with the wealth tax, I assume that the increased tax liabilities and compliance costs are paid out of wealth, and that these reductions in future wealth have a corresponding effect on income tax revenues.<sup>50</sup>

These revenue estimates are intended to correspond to conventional revenue estimates in the sense of the term used by the congressional JCT. Conventional revenue estimates are estimated under an assumption that GNP does not change. Conventional revenue estimates thus reflect avoidance and evasion responses that cause income to shift across tax bases or outside the tax base entirely, but do not reflect responses that cause total income to change and, through that channel, cause the tax base to change.

Under a fixed GNP approach, any reduction in capital income among those affected by the wealth tax or the accrual tax must be offset by an increase in capital income among those unaffected by the proposals. Because this income would, at least potentially, be subject to income taxes, this could reduce the revenue losses attributable to avoidance in a conventional revenue estimate. However, the revenue estimates above do not include an estimate of this potential offsetting effect motivated by the evidence suggesting that the majority of C corporation equity is held by tax-exempt investors, and thus that the average effective tax rate on capital at the investor-level is low (Burman, Clausing, and Austin 2017; Rosenthal and Austin 2016).<sup>51</sup>

Dynamic revenue estimates relax the assumption that GNP is unchanged. However, there would be little difference between the conventional revenue estimates presented above and a dynamic revenue estimate. To the extent foreign investors would become a more important source of financing for domestic investment under these proposals, analysis under the fixed GNP assumption might overstate the increase in capital income received by domestic investors that results from these reforms and understate the increase in capital income by foreign investors. However, since the estimate above assumed the increase in capital income received by domestic investors was unaffected by the wealth tax and the accrual tax generated no additional revenues, any shift from domestic investors to foreign investors would have no effect on the estimate.<sup>52</sup>

The mark-to-market system would raise additional transitional revenues from the realization of pre-enactment gains when assets are sold and from repealing stepped-up basis for past gains. These transitional revenues are excluded from the revenue estimates in the effort to put the wealth tax approaches and the income tax approaches on an even footing. Finally, the revenue estimates for the accrual proposal exclude the cost of the dividend imputation credit and some of the more narrowly targeted provisions, such as the limitation on retirement account balances, the effects of which would be modest relative to the overall revenue impact.

# SOURCES OF UNCERTAINTY

The estimates presented above are highly uncertain. The value of wealth, the value of unrealized appreciation on investment assets, and the behavioral responses to the proposed taxes are all subject to substantial uncertainty. In addition, this chapter relies on the publicly available Survey of Consumer Finances (Federal Reserve Board 2016), which provides a high-quality and internally consistent set of income and wealth information for U.S. households. However, this data differs in some respects from the income data collected in the administration of the income tax.

An additional source of uncertainty in the revenue estimates is the potential for asset price effects resulting from the increased taxation of wealth. To the extent that the marginal investor is subject to higher taxes on their asset holdings, their willingness to pay for an asset may fall. In addition, taxpayers who are subject to the tax would have reduced demand for asset holdings resulting from their direct tax payments and, potentially, from their avoidance strategies depending on what those avoidance strategies are. (Assets shifted from a taxable investor to an exempt foundation would not necessarily reduce overall asset demand, whereas assets sold to finance increased consumption spending would.)

A decline in asset prices would have different impacts on the wealth taxes and the accrual taxes. Since the wealth taxes are based on asset values, a decline in assets prices would reduce revenues. However, since the accrual taxes are based on the return, a decline in asset prices associated with higher returns (to offset taxes) would result in increased revenues. The benchmark estimates above assume no immediate asset price effects since the proposal applies to only a small portion of domestic investors. This decision to assume no asset price effects could overstate wealth tax revenues and understate accrual taxation revenues.

An additional set of uncertainties in the revenue estimates is those that relate to the more nuanced differences in the potential for avoidance and evasion under a wealth tax and an accrual tax. At present, this analysis assumes that avoidance under the two systems is broadly similar. Indeed, one contribution of this analysis lies in the attempt to generate internally consistent estimates of the revenues that would result from a wealth tax and accrual taxation of investment income. However, there are some important reasons that the two regimes might be different.

First, and perhaps most importantly, the wealth tax does not vary with variation in investment returns whereas the income tax owed under accrual taxation of investment income does. In other words, under the accrual tax the taxpayer and the government share investment risk, and under the wealth tax the taxpayer bears all of the risk. Thus, for a given expected tax payment, the cost of the wealth tax payment may exceed the cost of the income tax payment. As a result, taxpayers' wealth holdings may be more sensitive to a given level of payments under the wealth tax than under the income tax. This difference might affect not just investors' portfolio and savings decisions, but also labor supply and other decisions like those relevant for the taxation of rents under the two systems.

Second, although the principles underlying the determination of tax liabilities in an accrual tax and a wealth tax are similar in many respects—including relying on valuations of potentially hard-to-value assets—the computation of tax would be quite different. Notably, a portion of the income accruing to pass-through owners under the income tax would remain a measure of profits as under current law. Only a residual would be taxed as a change in market values, reflecting changes in expectations of future profits and unrealized capital gains held by the pass-through entity. The continued reliance on income to impose tax may facilitate higher compliance.

Third, under the accrual proposals taxpayers who earn no return on their assets will pay no tax. This raises the possibility that taxpayers, even for what is economically a similar tax, will be more inclined to retain assets in their possession than to shift them into tax-preferred entities, such as a nonprofit or a relative in a lower tax bracket.

# REVENUE ESTIMATES FOR THE REALIZATION-BASED WEALTH AND ACCRUAL TAXES

Separate estimates of the revenues raised by the realization-based versions of each tax are not presented in this chapter due to the limited evidence on which to base an estimate of the differences between the valuationbased approaches and the realization-based approaches. The primary consideration in estimating the difference in the revenues raised under the valuation-based approaches and under the realization-based approaches is the differential ability to avoid tax under the two. To the extent the realization-based approaches allow taxpayers to exploit the precise structure of the deferred tax computation to avoid tax, these approaches could raise less revenue. To the extent they would reduce the scope for taxpayers to understate asset values or gains and thus avoid tax, they would increase revenues.

# Acknowledgments

I thank Jay Shambaugh, Ryan Nunn, and Jimmy O'Donnell at The Hamilton Project for advice and support throughout the preparation of this chapter, and I thank participants at the author's conference for valuable feedback. Comments from Josh Bivens, Heather Boushey, Matt Fiedler, Jane Gravelle, Laura Kawano, John Sabelhaus, Natasha Sarin, Alex Thornton, Eric Toder, Alan Viard, Steve Wamhoff, Danny Yagan, and Eric Zwick are also gratefully acknowledged. All remaining errors are my own.

# Endnotes

- 1. Throughout this chapter, maximum tax rates include the 3.8 percent additional Medicare tax and the 3.8 percent net investment income tax when appropriate.
- 2. The estimates presented here rely on the Survey of Consumer Finances (Federal Reserve Board 2016) and thus report the distribution by households rather than by tax units. An analysis by tax units, as is standard in tax analysis, would show each proposal to be more concentrated among the wealthiest and highest-income families since there are more low-income tax units than there are low-income households.
- 3. Proposals for wealth taxes have been set out by Shakow and Shuldiner (2000), Piketty (2014), Shakow (2016), and Saez and Zucman (2019), among others. Proposals for accrual taxation, some of which rely on realization and some of which do not, include Shakow (1986), Glogower (2016), Grubert and Altshuler (2016), and Miller (2016a). Auerbach (1991) proposes retrospective taxation of capital gains, though, in the terminology of this chapter, his proposal is more closely related to the realization-based wealth tax than it is to the realization-based accrual tax. Batchelder and Kamin (2019) provide a recent review of proposals to tax high-income and high-wealth households.
- 4. A like-kind exchange allows a taxpayer to exclude from income the gain on the sale of the asset that would otherwise be taxable. The taxpayer's basis in the newly acquired asset is set equal to their basis in the original asset. The provision therefore allows a deferral of tax but not an exemption from tax unless it is combined with other planning strategies.
- The revenue estimate for the Obama administration's proposal to tax gains at death was only about \$200 billion (Treasury 2016). However, in large part this difference reflects a lag in the timing of

revenues collected under this proposal following enactment, though it also reflects a shift in the budget window, a modest exemption, and some avoidance through charitable giving, because gains on assets donated to charitable organizations would not have been taxed under the proposal. Since the shortfall in revenues relative to the tax expenditure is substantially due to timing, the revenue estimate would rise closer to the tax expenditure estimate in later years.

- 6. A modest but noticeable fraction of the revenues raised by this package of incremental options would come from families with incomes outside the top 5 percent of families. To the extent that policymakers exempt these families (or even more families) from the incremental reform packages, the revenues raised would be further reduced.
- 7. Additional gift taxes on high-income taxpayers who are not subject to the wealth tax may be appropriate to discourage taxpayers who anticipate paying the wealth tax in future years from giving during the years just before they would otherwise become subject to the tax. These taxes should be based on information collected on current income and gift tax returns.
- 8. In the case of dependents who could potentially be claimed by multiple taxpayers, the dependent would be assigned to the return with the highest taxable wealth. In addition, if a dependent's wealth exceeds \$1 million, that dependent's support (including cumulative gifts and inheritances) comes from another tax unit, and that tax unit has higher wealth, then the dependent would be included in that tax unit for wealth tax purposes.
- 9. The federal income tax applies to all resident aliens. The proposed wealth tax applies to a somewhat narrower base to avoid imposing the compliance costs associated with valuations on taxpayers whose wealth has been accumulated outside the United States and who would not be subject to the tax on an ongoing basis.
- 10. Defined benefit pension entitlements would be valued based on actuarial assumptions prescribed by the Treasury and IRS. Funded status would not be considered in determining the value of pension entitlements.
- 11. The fair market value of the interest would be computed using discount rates that reasonably reflect any risk of nonpayment for future payments.
- 12. See Dodge (2016) for an alternative approach that seeks to address some of the same underlying issues.
- 13. Pension entitlements would be included in the wealth tax base as assets of the participant or beneficiary as noted above.
- 14. See Galle (2019) for additional discussion of the treatment of nonprofits under a wealth tax.
- 15. No allowance for consumption would be provided. The assumed inflationary rate of return and the absence of allowance for consumption together aim to balance the goal of taxing wealth owners on the present value of their wealth at the time they expatriate. The Treasury and the IRS would prescribe the mortality assumptions.
- 16. In the case of a business with substantially identical ownership stakes, such as an S corporation with a single class of stock or a C corporation with a limited number of classes of stock, these valuations may be expressed in terms of the value of each class of stock.
- 17. Business entities required to file an information return would be required to disclose to the IRS if they receive an information return from a subsidiary that is substantially inconsistent with the valuation that they report to the IRS. This requirement would not apply to publicly traded entities who receive such inconsistent returns.
- 18. This realization-based wealth tax is motivated by the proposal for retrospective capital income taxes of Auerbach (1991). In the spirit of that proposal, the proposed approach depends on an assumed return rather than on the observed return, and the tax depends on the holding period. In contrast to the Auerbach proposal, it is a tax based on wealth rather than income. If the wealth tax rate is set equal to the income tax rate multiplied by the assumed return, this proposal would be equivalent to one formulation of the retrospective income tax proposal.
- 19. For purposes of computing this realization-based wealth tax liability, a taxpayer would be treated as if they held the asset for the entire year if they held the asset on the date at which it would have been valued for wealth tax purposes according to their accounting methods. In other words, if a taxpayer invests in a non-traded asset on December 1 and the asset would be valued on December 31, they would be treated as having held the non-traded asset for the entire year.
- 20. An important design challenge for the realization-based wealth tax is the determination of the

holding period for self-created assets. One potential approach would be to value the labor invested in creating such assets and use the value of those investments to create a series of notional assets with different holding periods. Further development of the rules specific to the case of self-created assets is an important area for additional work. (A similar challenge applies to the realization-based accrual tax.)

- 21. Note, however, that this challenge is not entirely new to the tax code. Determining reasonable compensation for C and S corporation owners under the existing income tax poses a related challenge, albeit one with much lower stakes.
- 22. This definition is motivated by the definition proposed in Miller (2005) and is intended to follow the same general idea, recognizing that the referenced regulations were substantially modified in the interim.
- 23. An alternative approach would exempt a specific quantity of lifetime gains, rather than rely on asset thresholds. The lifetime exemption approach avoids the need to value assets and eliminates the possibility that taxpayers would enter and exit the mark-to-market regime multiple times but does not guarantee an asset level below which taxpayers are not subject to the tax.
- 24. Additional rules to deal with publicly traded companies in which a dominant set of shareholders or owner-employees own a substantial majority of shares may be appropriate.
- 25. Sole proprietors (and owners of other disregarded entities) could elect to mark all assets and liabilities of the sole proprietorship to market rather than treat the sole proprietorship itself as an asset. Arguably, a proposal like this one amounts to a new concept of what an entity is for tax purposes. Further refinement of this concept would be a valuable area for additional work.
- 26. In principle, it would be desirable to limit the exclusion of post-transition gains from income to the quantity of appreciation previously included in income. However, doing so would create challenges in tracking these inclusions across owners.
- 27. Outside basis would adjust according to the sum of pass-through income and the net appreciation of the ownership interest.
- 28. The tax rate applied to pass-through income and the net appreciation of the pass-through interest would be the same, but taxpayers might still seek to convert income from the former form to the latter if it is easier to understate the latter form of income.
- 29. Current law rules for the depreciation of business-use property would continue to apply for businesses that are not required to use mark-to-market accounting (i.e., nonfinancial businesses). For a business financed entirely with equity and that is owned exclusively by investors subject to the accrual system, the accrual proposal would effectively repeal accelerated depreciation. This would occur even though accelerated depreciation would remain in effect for purposes of computing the business' taxable income. Accelerated depreciation would remain economically relevant for businesses with a more diverse ownership base and for businesses in which entity-level decision-making does not fully incorporate investor-level incentives.
- 30. Outside basis would adjust in accordance with pass-through income and realized gains on sales from assets held by the pass-through entity. The deferral charge itself would not affect outside basis. Inside basis could be adjusted for changes in outside basis under procedures modeled on those of Section 754. Additional refinement of the procedures for aligning inside basis and outside basis would be a valuable area for future work. Since distributions to pass-through owners reduce the owners' basis, there is not the same need for an additional tax on distributions under the realization-based accrual tax to reduce the incentive for taxpayers to use distributions to reduce the value of a non-traded asset shortly before sale as there is under the realization-based wealth tax.
- 31. An alternative to the hybrid approach under which certain assets are taxed annually on a mark-to-market basis and other assets are taxed when sold with a deferral charge is a uniform system in which all taxes are imposed when assets are sold. Glogower (2016) outlines such a system. An advantage of this approach is that it eliminates any inconsistencies in the treatment of different assets. A disadvantage is that it increases the sensitivity of taxes to legislative changes and thus increases the option value of deferral.
- 32. The revenue estimates presented here rely on the National Bureau of Economic Research's (NBER) taxsim27 program (NBER 2019), and thus implicitly assume 199A has been repealed. Impacts are measured relative to current policy (i.e., they assumed the 2017 tax cuts have been made permanent). Estimates are on a calendar year basis. Fiscal year estimates would be slightly lower.

The estimates also exclude some of the more narrowly targeted provisions, such as the limitation on retirement account balances under the accrual taxation approaches, the effects of which would be modest relative to the overall revenue impact.

- 33. The distribution analysis presented here relies on the Survey of Consumer Finances (Federal Reserve Board 2016) and thus reports the distribution by households rather than tax units. An analysis by tax units, as is standard in tax analysis, would show each proposal to be more concentrated among the wealthiest and highest-income families since there are more low-income tax units than lowincome households.
- 34. JCT (1993) developed this approach to distribution analysis in detail but has subsequently moved away from it in its official work.
- 35. Were revenues used for deficit reduction rather than spent, the increase in government savings could also substitute for wealth previously held by the wealthy.
- 36. A portion of the reduction in wealth resulting from the proposed taxes on wealth reflects the mechanical effect of increased tax payments. This reduction in wealth would be appropriately excluded from a traditional distribution analysis as well as the modified distribution analysis described here.
- 37. I assume these costs are not explicitly deductible under either the wealth tax or the accrual tax. However, they would be effectively deductible with a one-year lag since the costs incurred in one calendar year to pay the prior year's wealth tax would reduce wealth or investment income when the subsequent year's tax liability is determined, consistent with the assumption above that the tax liabilities are paid out of wealth. This effect is reflected in the estimates of revenue and burden above.
- 38. Notably, under the assumption that the spending is valued dollar for dollar, this aggregation means the assumption about the use of funds is unimportant.
- 39. See Chetty (2009) for a discussion of related issues.
- 40. Relatedly, as noted above, the wealth tax is better able to tax income generated by wealth in the form of services, such as the housing services provided by owner-occupied real estate and the enjoyment provided by works of art, yachts, and the like.
- 41. A similar provision for the deferral of tax payments exists under the estate tax.
- 42. As part of their proposal for mark-to-market taxation of publicly traded C corporation securities, Toder and Viard (2016) propose a smoothing mechanism that would include 20 percent of the cumulative quantity of accrued gains and losses each year.
- 43. Owners of business-use property are subject to tax if they dispose of that property at a gain. A complex set of rules determines whether the gains are subject to ordinary tax rates, the preferential capital gains tax rates noted above, or alternative tax rates.
- 44. For additional discussion of the revenue potential of a wealth tax in the United States see Saez and Zucman (2019) and Ricco, He, and Huntley (2019).
- 45. Incomes for the Forbes 400 are imputed using the estimates of Bourne et al. (2018).
- 46. I assume that half of this avoidance erodes the income tax base, as in the case of charitable contributions and expatriation, and half of this avoidance does not, as in the case of a transfer to another taxpayer in the top income tax bracket to whom the wealth tax does not apply. This estimate assumes that avoidance occurs immediately and is constant over time. To the extent that it takes time to develop or implement new planning strategies or to take advantage of avoidance opportunities, it may be that avoidance increases over time.
- 47. Among other factors, this calculation implicitly ignores the wealth tax threshold, which would likely cause the resulting estimate to slightly understate revenues, provided the threshold grows relatively slowly, such as if indexed to inflation.
- 48. I ignore the potential for an offset reflecting the increase in wealth from the reduction of income tax liabilities paid in the baseline and the potential for an offset of estate tax revenues. The former would likely cause the estimate presented here to slightly understate revenues and the latter to slightly overstate revenues.
- 49. For purposes of computing the phase in, I assume that private business wealth is reduced by the 16 percent evasion adjustment and the resulting value of net worth understated by an additional 8 percent.
- 50. This adjustment is arguably nonstandard in the analysis of changes in the taxation of capital gains.

However, such analyses would assume a realization elasticity much larger than the avoidance elasticities assumed here; that realization elasticity would swamp this effect and thus could be construed to tacitly include this effect.

- 51. One alternative approach to constructing conventional revenue estimates assumes that any change in tax results in a change in consumption. Under this approach, the wealth tax payments and compliance costs would not reduce future wealth, and thus the revenue estimate would be higher than the estimate presented here.
- 52. To the extent that revenues from taxes on wealth and investment income were not spent but instead were used to reduce the deficit, this could generate a small positive impact on revenues from reduced crowd out. However, for the present purposes I assume the revenue is spent.

# References

Ackerman, Bruce. 1999. "Taxation and the Constitution." Columbia Law Review 99 (1): 1-58.

- Auerbach, Alan J. 1991. "Retrospective Capital Gains Taxation." American Economic Review 81 (1): 167–78.
- Auten, Gerald, and David Splinter. 2019. "Income Inequality in the United States: Using Tax Data to Measure Long-Term Trends." Unpublished manuscript.
- Batchelder, Lily L., and David Kamin. 2019. *Taxing the Rich: Issues and Options*. Washington, DC: The Aspen Institute.
- Batty, Michael, Jesse Bricker, Joseph Briggs, Elizabeth Holmquist, Susan McIntosh, Kevin Moore, Eric Nielsen, Sarah Reber, Molly Shatto, Kamila Sommer, Tom Sweeney, and Alice Henriques Volz. 2019. "Introducing the Distributional Financial Accounts of the United States." Finance and Economics Discussion Series No. 2019-017, Board of Governors of the Federal Reserve System, Washington, DC.
- Board of Governors of the Federal Reserve System (Federal Reserve Board). 2016. "Survey of Consumer Finances." Board of Governors of the Federal Reserve System, Washington, DC.
- Bourne, Jenny, Eugene Steuerle, Brian Raub, Joseph Newcomb, and Ellen Steele. 2018. "More Than They Realize: The Income of the Wealthy." *National Tax Journal* 71 (2): 335–56.
- Bricker, Jesse, Alice Henriques, Jacob Krimmel, and John Sabelhaus. 2016. "Measuring Income and Wealth at the Top Using Administrative and Survey Data." *Brookings Papers on Economic Activity* (Spring): 261–331.
- Burman, Leonard E., Kimberly A. Clausing, and Lydia Austin. 2017. "Is U.S. Corporate Income Double Taxed?" *National Tax Journal* 70 (3): 675–706.
- Chetty, Raj. 2009. "Is the Taxable Income Elasticity Sufficient to Calculate Deadweight Loss? The Implications of Evasion and Avoidance." *American Economic Journal: Economic Policy* 1 (7): 31–52.
- Congressional Budget Office (CBO). 2018. Options for Reducing the Deficit: 2019 to 2028. Washington, DC: Congressional Budget Office.
- ————. 2019a. The Distribution of Household Income, 2016. Washington, DC: Congressional Budget Office.
- ———. 2019b. An Update to the Budget and Economic Outlook: 2019 to 2029. Washington, DC: Congressional Budget Office.
- Cronin, Julie-Anne. 1999. "U.S. Treasury Distributional Analysis Methodology." Office of Tax Analysis Paper No. 85, Office of Tax Analysis, U.S. Department of the Treasury, Washington, DC.
- Davenport, Charles, and Jay A. Soled. 1999. "Enlivening the Death-Tax Death-Talk." *Tax Notes* 84 (4): 591–630.
- Dodge, Joseph M. 2016. "Three Whacks at Wealth Transfer Tax Reform: Retained-Interest Transfers, Generation-Skipping Trusts, and FLP Valuation Discounts." *Boston College Law Review* 57 (3): 999–1035.

- Dowd, Tim, Robert McClelland, and Jacob A. Mortenson. 2019. *Investor Responsiveness to Capital Gains Taxes During the Great Recession*. Washington, DC: Urban–Brookings Tax Policy Center.
- Dubois, Alain, Janice Hedemann, Theodore Black, John Guyton, Andrew Johns, Patrick Langetieg, Mark Payne, Alan Plumley, and Mary-Helen Risler. 2016. *Federal Tax Compliance Research: Tax Gap Estimates for Tax Years 2008-2010.* Washington, DC: Internal Revenue Service, U.S. Department of Treasury.
- Fisher, Jonathan, David Johnson, Timothy Smeeding, and Jeffrey Thompson. 2018. "Inequality in 3-D: Income, Consumption and Wealth." Finance and Economics Discussion Series No. 2018-001, Board of Governors of the Federal Reserve System, Washington, DC.
- Gale, William G., and Joel Slemrod. 2000. "Life and Death Questions About the Estate and Gift Tax." *National Tax Journal* 53 (4): 889–912.
- ———. 2001. "Rhetoric and Economics in the Estate Tax Debate." National Tax Journal 54 (3): 613–27.
- Galle, Brian. 2019, January 25. "Tax Exempt Entities Under a Wealth Tax." Medium.
- Glogower, Ari D. 2016. "Taxing Capital Appreciation." *New York University Tax Law Review* 70 (1): 111–76.
- Gravelle, Jane. 2019. Capital Gains Tax Options: Behavioral Responses and Revenues. Washington, DC: Congressional Research Service.
- Grubert, Harry, and Rosanne Altshuler. 2016. "Shifting the Burden of Taxation from the Corporate to the Personal Level and Getting the Corporate Tax Rate Down to 15 Percent." *National Tax Journal* 69 (3): 643–76.
- Guvenen, Fatih, Gueorgui Kambourov, Burhan Kuruscu, Sergio Ocampo, and Daphne Chen, 2019. "Use It or Lose It: Efficiency Gains from Wealth Taxation." Working Paper 26284, National Bureau of Economic Research, Cambridge, MA.
- Hendren, Nathaniel. 2019. "Efficient Welfare Weights." Working Paper 20351, National Bureau of Economic Research, Cambridge, MA.
- Hendren, Nathaniel, and Ben Sprung-Keyser. 2019. "A Unified Welfare Analysis of Government Policies." Working Paper, Harvard University, Cambridge, MA.
- Internal Revenue Service (IRS). 1980–2013. "Integrated Business Data." Internal Revenue Service, Department of the Treasury, Washington, DC.
- ———. 2019. Internal Revenue Service Data Book. Washington, DC: Internal Revenue Service, U.S. Department of Treasury.
- Joint Committee on Taxation (JCT). 1993. *Methodology and Issues in Measuring Changes in the Distribution of Tax Burdens*. Washington, DC: Joint Committee on Taxation.
- ———. 2013, October 16. Modeling the Distribution of Taxes on Business Income. Washington, DC: Joint Committee on Taxation.
- Kopczuk, Wojciech. 2019. "Comment on 'Progressive Wealth Taxation' by Saez and Zucman." Unpublished manuscript, Columbia University, New York, NY.
- Kopczuk, Wojciech, and Emmanuel Saez. 2004. "Top Wealth Shares in the United States, 1916–2000: Evidence from Estate Tax Returns." *National Tax Journal* 57 (2): 445–87.
- Leiserson, Greg. 2019. "Distribution Analysis as Welfare Analysis." Unpublished manuscript.
- Leiserson, Greg, and Adam Looney. 2018. *A Framework for Economic Analysis of Tax Regulations*. Washington, DC: The Brookings Institution.
- Marcuss, Rosemary, George Contos, John Guyton, Patrick Langetieg, Allen Lerman, Susan Nelson, Brenda Schafer, and Melissa Vigil . 2013. "Income Taxes and Compliance Costs: How Are They Related?" *National Tax Journal* 66 (4): 833–54.
- Miller, David S. 2005. "A Progressive System of Mark-to-Market Taxation." Tax Notes 109: 1048–79.
- ———. 2016a. "A Comprehensive Mark-to-Market Tax for the 0.1% Wealthiest and Highest-Earning Taxpayers." Available at SSRN online.
- —. 2016b. "Appendix 2. Constitutional Issues Raised by Mark-to-Market Taxation." In A Proposal to Reform the Taxation of Corporate Income, by Eric Toder and Alan Viard, 76–81.
  Washington, DC: Urban–Brookings Tax Policy Center.

- National Bureau of Economic Research (NBER). 2019. "Internet TAXSIM Version 27." National Bureau of Economic Research, Cambridge, MA.
- Pichet, Eric. 2007. "The Economic Consequences of the French Wealth Tax." *La Revue de Droit Fiscal* 14 (5): 1–25.
- Piketty, Thomas. 2014. *Capital in the Twenty-First Century*. Cambridge, MA: Harvard University Press.
- Piketty, Thomas, Emmanuel Saez, and Gabriel Zucman. 2018. "Distributional National Accounts: Methods and Estimates for the United States." *The Quarterly Journal of Economics* 133 (2): 553–609.
- Poterba, James M., and Andrew A. Samwick. 2003. "Taxation and Household Portfolio Composition: U.S. Evidence from the 1980s and 1990s." *Journal of Public Economics* 87 (1): 5–38.
- Ricco, John. 2019, December 4. "The Revenue-Maximizing Capital Gains Tax Rate: With and Without Stepped-up Basis at Death." Penn Wharton Budget Model (blog).
- Ricco, John, Zheli He, and Jon Huntley. 2019. "Senator Elizabeth Warren's Wealth Tax: Projected Budgetary and Economic Effects." Brief, Penn Wharton Budget Model, University of Pennsylvania, Philadelphia, PA.
- Robbins, Jacob. 2018. "Capital Gains and the Distribution of Income in the United States." Unpublished manuscript.
- Rosenthal, Steven M., and Lydia Austin. 2016. *The Dwindling Taxable Share of U.S. Corporate Stock*. Washington, DC: Urban–Brookings Tax Policy Center.
- Saez, Emmanuel, and Gabriel Zucman. 2016. "Wealth Inequality in the United States Since 1913: Evidence from Capitalized Income Tax Data." *The Quarterly Journal of Economics* 133 (2): 519–78.
- ———. 2019. "Progressive Wealth Taxation." Conference Draft, *Brookings Papers on Economic Activity*, Brookings Institution, Washington, DC.
- Sarin, Natasha, Lawrence Summers, and Joe Kupferberg. 2020. "Tax Reform for Progressivity: A Pragmatic Approach." In *Tackling the Tax Code: Efficient and Equitable Ways to Raise Revenue*, edited by Jay Shambaugh and Ryan Nunn. Washington, DC: The Hamilton Project.
- Schenk, Deborah. 2000. "Saving the Income Tax with a Wealth Tax." *Tax Law Review* 53 (3): 423–76.
- Schmalbeck, Richard. 2001. "Avoiding Federal Wealth Transfer Taxes." In *Rethinking Estate and Gift Taxation*, edited by Joel Slemrod, William G. Gale, and James R. Hines Jr., 103–54. Washington, DC: Brookings Institution Press.
- Shakow, David J. 1986. "Taxation Without Realization: A Proposal for Accrual Taxation." University of Pennsylvania Law Review 134 (5): 1111–205.
- Shakow, David J. 2016. "A Wealth Tax: Taxing the Estates of the Living." *Boston College Law Review* 57 (3): 947–78.
- Shakow, David J., and Reed Shuldiner. 2000. "A Comprehensive Wealth Tax." *Tax Law Review* 53 (3): 499–585.
- Simons, Henry. 1938. Personal Income Taxation: The Definition of Income as a Problem of Fiscal Policy. Chicago, IL: University of Chicago Press.
- Smith, Matthew, Danny Yagan, Owen Zidar, and Eric Zwick. 2019. "Capitalists in the Twenty-First Century." *The Quarterly Journal of Economics* 134 (4): 1675–745.
- Smith, Matthew, Owen Zidar, and Eric Zwick. 2019. "Top Wealth in the United States: New Estimates and Implications for Taxing the Rich." Unpublished manuscript.
- Soled, Jay. 1997. "Transfer Tax Valuation Issues, the Game Theory, and Final Offer Arbitration: A Modest Proposal for Reform." *Arizona Law Review* 39 (1): 283–310.
- Toder, Eric, and Alan D. Viard. 2016. *A Proposal to Reform the Taxation of Corporate Income*. Washington, DC: Urban–Brookings Tax Policy Center.
- U.S. Department of the Treasury (Treasury). 2015a. *General Explanations of the Administration's Fiscal Year 2016 Revenue Proposals*. Washington, DC: U.S. Department of the Treasury.

- ———. 2015b. *Treasury's Distribution Methodology and Results*. Washington, DC: U.S. Department of the Treasury.
- ———. 2016. General Explanations of the Administration's Fiscal Year 2017 Revenue Proposals. Washington, DC: U.S. Department of the Treasury.

-----. 2019. Tax Expenditures. Washington, DC: U.S. Department of the Treasury.

- Urban–Brookings Tax Policy Center. 2018. "T18-0183: Tax Benefit of the Preferential Rates on Long-Term Capital Gains and Qualified Dividends, Baseline: Current Law, Distribution of Federal Tax Change by Expanded Cash Income Percentile, 2018." Urban–Brookings Tax Policy Center, Washington, DC.
- Weisbach, David A. 2017. "Capital Gains Taxation and Corporate Investment." *National Tax Journal* 70 (3): 621–42.
- Yagan, Danny. 2015. "Capital Tax Reform and the Real Economy: The Effects of the 2003 Dividend Tax Cut." *American Economic Review* 105 (12): 3531–63.

Zucman, Gabriel. 2019. "Global Wealth Inequality." Annual Review of Economics 11:109-38.