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### Taxing Wealth in an Uncertain World

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# **TAXING WEALTH IN AN UNCERTAIN WORLD**

Daniel Hemel

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*An annual wealth tax, a mark-to-market income tax, and a retrospective capital gains tax are three approaches to capital taxation that yield roughly equivalent outcomes under certain conditions. The three approaches differ starkly, however, in their exposure to uncertainty of various types. This essay seeks to highlight the effect of uncertainty on the implementation and operation of alternative capital taxation regimes. An annual wealth tax is highly vulnerable to valuation uncertainty and constitutional uncertainty, but less so to political uncertainty. A retrospective capital gains tax, by contrast, minimizes valuation uncertainty and effectively eliminates constitutional uncertainty but remains highly exposed to political uncertainty. A mark-to-market regime falls somewhere between the two extremes on dimensions of political and constitutional uncertainty but shares in a wealth tax's exposure to valuation uncertainty. Ultimately, the choice among alternative capital taxation regimes reflects a tradeoff among uncertainties of different varieties.*

*Keywords: wealth tax, mark-to-market income tax, retrospective capital gains tax*

*JEL Codes: K34, H20, H21, H24*

## I. INTRODUCTION

Wealth taxation is an age-old idea that has drawn renewed attention in an era of widening inequality (e.g., II Kings 23:35; Piketty, 2013). U.S. Senator Elizabeth Warren, a Massachusetts Democrat who is seeking her party's presidential nomination, has injected the issue into the 2020 race with her proposal for a 2% annual tax on household net worth above \$50 million, rising to 3% above \$1 billion.<sup>1</sup> Her proposal came just weeks before U.S. Senator Ron Wyden, the ranking Democratic member of the Senate Finance Committee, announced a separate plan to tax unrealized capital gains on a mark-to-market basis at ordinary income rates.<sup>2</sup> While neither plan stands much of a chance of becoming law until after the November 2020 general election (at the earliest), the competing proposals have sparked the beginnings of a debate about wealth taxation versus mark-to-market taxation as alternative means of raising revenue and reducing economic inequality.<sup>3</sup>

Economists and tax law scholars have long understood that a wealth tax and a mark-to-market income tax are different ways of describing largely equivalent levies on the same base (see Weisbach (2004) for further discussion). A third approach that achieves similar results is a “retrospective capital gains tax” (Auerbach, 1991; Auerbach and Bradford, 2004), or “retrospective wealth tax” (Kwak, 2015), which in its simplest form leaves taxpayers just as well off in the long run as they would have been if the government had imposed an annual wealth tax

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<sup>1</sup> Stein, Jeff, and Christopher Ingraham, “Elizabeth Warren to propose new ‘wealth tax’ on very rich Americans, economist says,” *Washington Post*, January 24, 2019, <https://www.washingtonpost.com/business/2019/01/24/elizabeth-warren-propose-new-wealth-tax-very-rich-americans-economist-says>.

<sup>2</sup> Rubin, Gabriel T., and Richard Rubin, “Top Democrat Proposes Annual Tax on Unrealized Capital Gains,” *Wall Street Journal*, April 2, 2019, <https://www.wsj.com/articles/top-democrat-proposes-annual-tax-on-unrealized-capital-gains-11554217383>.

<sup>3</sup> Matthews, Dylan, “How to tax the rich, explained,” *Vox*, May 19, 2019, <https://www.vox.com/2019/3/19/18240377/estate-tax-wealth-tax-70-percent-warren-sanders-aoc>.

or mark-to-market income tax and their portfolios had appreciated at the risk-free rate. The rough equivalence comes with well-known qualifications concerning taxpayer liquidity, the treatment of abnormal returns, and the allocation of risk across the private and public sectors. These qualifications do not, however, significantly undermine the overall observation of rough economic equivalence across all three regimes.

The three regimes of capital taxation nonetheless differ meaningfully—perhaps most meaningfully—in the way they interact with uncertainty of various sorts. More precisely, the three regimes—an annual wealth tax, a mark-to-market income tax, and a retrospective capital gains tax—all represent different approaches to valuation uncertainty, political uncertainty, and constitutional uncertainty. “Valuation uncertainty” refers to uncertainty regarding the fair market value of thinly traded assets. “Political uncertainty” refers to lack of foreknowledge regarding legislative changes to tax rules and rates. “Constitutional uncertainty” refers to the possibility that the U.S. Supreme Court or another federal court will hold that the capital taxation regime in question lies beyond Congress’s constitutional authority.

“Uncertainty” is, to be sure, not a quantity that can be measured on a single scale. One cannot, for example, say that an annual wealth tax has  $x$  units of valuation uncertainty,  $y$  units of political uncertainty, and  $z$  units of constitutional uncertainty. Still, thinking about these regimes in terms of their exposure to uncertainty can yield useful insights about the advantages and disadvantages of each. By “exposure to uncertainty,” I refer to the extent to which valuation uncertainty, political uncertainty, or constitutional uncertainty interferes with the operation and revenue-raising potential of each tax. Framed this way, an annual wealth tax entails a low level of exposure to political uncertainty, a high level of exposure to valuation uncertainty, and high exposure to constitutional uncertainty. A mark-to-market income tax involves low (but nonzero)

exposure to constitutional uncertainty, intermediate exposure to political uncertainty, and high exposure to valuation uncertainty. A retrospective capital gains tax, for its part, entails low exposure to valuation uncertainty and low (essentially zero) exposure to constitutional uncertainty but high exposure to political uncertainty. Table 1 summarizes these claims:

**Table 1. Capital Taxation and Exposure to Uncertainty**

	<b>Valuation Uncertainty</b>	<b>Political Uncertainty</b>	<b>Constitutional Uncertainty</b>
<b>Annual wealth tax</b>	HIGH	LOW	HIGH
<b>Mark-to-market income tax</b>	HIGH	INTERMEDIATE	LOW (>0)
<b>Retrospective capital gains tax</b>	LOW	HIGH	LOW (~0)

These characterizations are, to be sure, relative and subjective, and the three types of uncertainty are not necessarily commensurable. It would thus be a fallacy to conclude that a retrospective capital gains tax is preferable to its alternatives simply because it has the lowest “uncertainty average” of the three. Still, the choice among an annual wealth tax, a mark-to-market income tax, and a retrospective capital gains tax amounts in large part to a tradeoff among uncertainties of different types.

## **II. THREE CAPITAL TAX REGIMES**

### **A. The Mechanics**

An annual wealth tax and a mark-to-market income tax are, administratively, quite similar in their operation. An annual wealth tax would require taxpayers to estimate the value of all of their assets each year and pay a tax equal to a percentage of that value (perhaps after subtracting the value of liabilities). A mark-to-market income tax would likewise require taxpayers to estimate the value of all their assets each year and (in the case of assets held year to

year) pay a tax based on the value of those assets minus their value a year before. The informational requirements of a mark-to-market income tax are modestly higher than those of an annual wealth tax, however, for three reasons. First, a mark-to-market income tax would require taxpayers to track sales during the course of the year. By contrast, an annual wealth tax would not require taxpayers to account for assets sold during the year if the proceeds were consumed before the next valuation date. Second, a mark-to-market income tax would require taxpayers to track purchases during the course of the year. For example, if a taxpayer bought an asset on June 30 and held it until December 31, a mark-to-market regime would require the taxpayer to pay tax on the change in value over that six-month period. All that matters for an annual wealth tax, again, is the value of a taxpayer's assets on the valuation date. Third, and relatedly, a mark-to-market income tax would require year-to-year recordkeeping, while an annual wealth tax would rely only on a point-in-time snapshot of net worth. These additional informational requirements are not trivial, but nor are they enormous. Most taxpayers will have data on their own purchases and sales over the past twelve months near at hand, and most will maintain their tax records from the previous year as a matter of course. (Indeed, federal tax law requires year-to-year record retention already.<sup>4</sup>)

A retrospective capital gains tax differs dramatically from the other two regimes in that it does not require annual valuation. No tax would be due until a taxpayer sells or exchanges an asset in an arms-length transaction—that is, until a realization event occurs. In the simplest version (Auerbach, 1991), the tax at the time of realization would be based on the realized value of the asset, the date that the taxpayer acquired the asset, and an assumed rate of return over the taxpayer's holding period (which, for reasons discussed below, should likely be set equal to the

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<sup>4</sup> Treas. Reg. § 1.6001-1.

risk-free rate). The tax due would be equal to the amount necessary to leave the taxpayer in the same position that she would be in if the asset had appreciated at the assumed rate of return over the holding period, ending with a value equal to the realized value, and the taxpayer had paid tax each year on a mark-to-market basis.

To illustrate, imagine that the assumed rate of return is 5%, that the capital gains tax rate is 21%, and that a taxpayer sells an asset in an arm's-length transaction on December 31, 2021 for \$110.25. Imagine, moreover, that the taxpayer acquired the asset in question on January 1, 2020. To determine the retrospective capital gains tax due, the taxpayer would engage in a three-step process:

—*First*, the taxpayer would compute the trajectory that the asset's value would have taken if the asset had appreciated at the assumed rate over the course of the holding period, ending with a value of \$110.25. Here, the asset would have appreciated from \$100 to \$105 in 2020 and from \$105 to \$110.25 in 2021.

—*Second*, the taxpayer would compute the tax that would have been due if a mark-to-market income tax regime had applied to the taxpayer throughout the holding period. Here, the tax due under a mark-to-market regime would have been \$1.05 for 2020 (i.e.,  $21\% \times (\$105 - \$100)$ ) and \$1.10 for 2021 (i.e.,  $21\% \times (\$110.25 - \$105)$ ).

—*Third*, to account for the benefit of deferring the \$1.05 tax that would have been due in 2020 until 2021, the taxpayer would compute the interest charge that she would have paid if she had borrowed \$1.05 at the assumed rate at the end of 2020. Here, the interest charge would have been approximately \$0.05 and the taxpayer would have been entitled to an interest deduction worth approximately \$0.01.

The resulting retrospective capital gains tax liability would be \$2.19 (i.e., \$1.05 + 1.10 + \$0.05 – \$0.01) and the taxpayer would be left with \$108.06 (i.e., \$110.25 – \$2.19). The same result is (not coincidentally) obtained by applying the following formula:

$$T = A \left[ 1 - \left( \frac{1+r(1-t)}{1+r} \right)^h \right] \quad (1)$$

where  $T$  is the tax liability,  $A$  is the amount realized,  $r$  is the assumed rate of return,  $t$  is the tax rate, and  $h$  is the holding period (Auerbach and Bradford, 2004, p. 960).

As noted, the retrospective capital gains tax proposed by Auerbach (1991) is designed to leave the taxpayer as well off as she would have been under a mark-to-market regime if her portfolio had grown at the assumed rate. Note as well that an annual wealth tax can be constructed to yield the same result. To illustrate: Imagine an annual wealth tax of 1% assessed on January 1 of each year.<sup>5</sup> A taxpayer with \$100 as of January 1, 2020, would therefore pay \$1 in tax and have \$99 to invest. If she invested in an asset that appreciated at the assumed rate of 5%, then she would have \$99 x 1.05 = \$103.95 at the end of 2020. She would again be assessed a wealth tax on January 1, 2021, this time amounting to 1% x \$103.95 ≈ \$1.04. If she reinvested the remaining \$102.91 in an asset that grew at the assumed rate, she would be left with approximately \$108.06 at the end of 2021—the same after-tax result as under the retrospective capital gains tax.

Another common feature of all three taxes—at least in the absence of the uncertainties discussed in the next section—is that they do not distort the timing of realization (provided that the assumed rate of return for the retrospective capital gains tax is the risk-free rate). Under a realization-based capital gains tax without a deferral charge, a taxpayer has an incentive to delay

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<sup>5</sup> The annual wealth tax rate that achieves parity with the retrospective capital gains tax in equation (1) is  $rt/(1+r)$ .



the sale of an appreciated asset even if the expected rate of return is somewhat less than the risk-free rate (a phenomenon familiarly known as “lock-in”) and to accelerate the sale of an asset with unrealized losses (a phenomenon sometimes known as “lock-out”). Annual wealth taxes and mark-to-market taxes eliminate unrealized gains and losses and so eliminate the worry about lock-in and lock-out. So too, under a retrospective capital gains tax, a taxpayer obtains no advantage from accelerating or delaying the sale of an asset unless she expects the asset to grow faster than the risk-free rate. Otherwise, she would be better off selling the asset today and moving her money to a risk-free investment.

An annual wealth tax is usually envisioned as an add-on to the existing income tax system, which already taxes flow income from assets (e.g., dividends and interest). By contrast, a mark-to-market income tax or a retrospective capital gains tax would be embedded within the existing income tax system. Thus an annual wealth tax would result in a double burden on the risk-free return from assets that generate flow income. Note, though, that the double-burden aspect of an annual wealth tax alongside the existing flow-income tax could be mitigated by allowing taxpayers to deduct the risk-free return from their flow-income tax liabilities.<sup>6</sup>

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<sup>6</sup> To elaborate: Imagine a fixed-income asset with a value of \$100 that pays interest at the risk-free rate (again assumed to be 5%). Under a 1% annual wealth tax assessed on January 1, the taxpayer would pay a \$1 tax on that date, and her remaining \$99 would generate interest of \$4.95. That \$4.95 in interest income, however, would be subject to an additional tax under our existing flow-income tax system. If the flow-income tax rate is 21%, the taxpayer’s end-of-year wealth would be  $\$99 + (1 - 0.21)\$4.95 \approx \$102.91$ . Put differently, the annual wealth tax would leave in place the existing income tax system’s bias against flow-income-generating assets.

By contrast, under a mark-to-market income tax, no tax would be due on the change in the value of an asset that began and ended the year with a value of \$100. Only the interest component would be subject to flow-income taxation. Again assuming a risk-free rate of 5% and a flow-income tax rate of 21%, the taxpayer’s end-of-year wealth would be  $\$100 + (1 - 0.21)\$5 = \$103.95$ . There would be no advantage or disadvantage to holding flow-income-generating assets.

Note that this double-burden aspect of an annual wealth tax could be resolved by allowing a deduction from the flow-income tax for the risk-free return. Thus, the taxpayer in the first paragraph of this footnote would pay \$1 in wealth tax on January 1 but would owe no additional flow-income tax at the end of the year (unless the asset paid interest at a rate greater than the risk-free rate).

A retrospective capital gains tax in its most basic form would impose a double tax burden on flow-income-generating assets similar (though not identical) to an annual wealth tax. That is, a taxpayer who purchased a fixed-income asset for \$100, earned interest at a risk-free rate of 5%, and sold the asset at the end of the year for \$100 would owe a retrospective capital gains tax of \$1 under the formula in equation (1), on top of a flow-income tax of

## B. Qualifications

The basic equivalence across the three capital taxation regimes considered here is subject to a number of well-known qualifications. The significance of these qualifications is easily exaggerated, however, and they do not weigh uniformly in favor of one regime over the others.

### 1. Liquidity

Perhaps the most obvious nonequivalence across the three regimes concerns taxpayer liquidity. An annual wealth tax and a mark-to-market income tax impose payment obligations upon taxpayers that may not be commensurate with liquid resources. A retrospective capital gains tax, by contrast, imposes payment obligations only upon realization, which generally (though not always) occurs when assets are exchanged for cash or its near-substitutes.

While this liquidity differential is a qualification to the rough equivalence across the three tax regimes, the qualification comes with qualifications of its own. First, for many assets (e.g., publicly traded securities), liquidity concerns are attenuated, as taxpayers can satisfy payment obligations by selling off a portion of their holdings without incurring substantial transaction costs. Second, even for less liquid assets (e.g., real estate or closely held businesses), taxpayers can obtain cash to pay wealth taxes or mark-to-market income taxes by taking out loans secured by those assets (or taking on other debt).<sup>7</sup> Third, once an annual wealth tax or mark-to-market income tax has been in place for some time, taxpayers will likely adjust to liquidity demands, just as homebuyers today anticipate property tax liabilities when making financial decisions (Schenck, 2004). Fourth and finally, insofar as liquidity constraints persist, the government can

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0.21(\$5) = \$1.05, resulting in after-tax wealth of \$102.95. This double-burden aspect of the retrospective capital gains tax could be resolved by adopting the modification explained in note 10.

<sup>7</sup> Few borrowers have access to capital on the same terms as the U.S. Treasury, and so the interest rate on a secured loan will almost certainly be higher than  $r$ . Note, though, that taxpayers who hold Treasury bonds in their portfolio can accomplish the equivalent of borrowing at the risk-free rate by selling off a portion of their Treasury bond holdings.

step in as a secured lender of last resort to taxpayers whose immediate payment obligations exceed their liquid wealth (Andreoni, 1992).<sup>8</sup>

## 2. *Abnormal Returns*

The basic equivalence across all three conditions also breaks down in the presence of abnormal returns. The return on capital can be separated into three components: the risk-free return, the return to risk-taking, and an abnormal return that may reflect economic rents, entrepreneurial labor, or asset-picking skill. As a general matter, an annual wealth tax imposes a lighter burden on abnormal returns than does a retrospective capital gains tax along the lines suggested in Auerbach (1991), which, in turn, imposes a lighter burden on abnormal returns than does a mark-to-market income tax.

To illustrate: Consider two individuals who both had a net worth of approximately \$11 billion in 2018—publishing heir Donald Newhouse and Facebook co-founder Dustin Moskovitz. In 2003, Newhouse’s net worth was an estimated \$7.7 billion while Moskovitz, who was finishing up his first year of college, had a net worth near zero.<sup>9</sup> Under an annual wealth tax, Newhouse would have paid more than Moskovitz over the last 15 years because Newhouse had a higher net worth through most of that time. Under a mark-to-market income tax, Moskovitz would have paid much more than Newhouse over the last 15 years because Moskovitz’s mark-to-market income was roughly \$11 billion over that period while Newhouse’s was less than a third of that. A retrospective capital gains along the lines suggested in Auerbach (1991) strikes a balance between the two extremes. Unlike an annual wealth tax, it does not give Moskovitz

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<sup>8</sup> Gamage (2019), writing concurrently to this paper, addresses liquidity concerns applicable to a wealth tax and arrives at conclusions broadly consistent with the discussion here.

<sup>9</sup> “The Forbes 400: The Richest People in America,” *Forbes.com*, Sept. 18, 2003; “Forbes 400: The Definitive Ranking of the Wealthiest Americans,” *Forbes.com*, Oct. 3, 2018.

“credit” for his low-net-worth years, but unlike a mark-to-market income tax, it does not charge him more than Newhouse on account of his extraordinary gains.

The normative implications of these observations are ambiguous. As an initial matter, it is not obvious whether the tax rate on abnormal returns should be equal to, higher than, or lower than the tax rate on wages or on the risk-free return to capital investment. Insofar as abnormal returns reflect compensation for entrepreneurial labor, a tax rate equal to the tax on wages will avoid distorting the allocation of labor between the larger firms, where workers will earn wages, and start-ups, where founders and early employees are likely to be compensated with equity that may later qualify for capital asset treatment (Poterba, 1989). Insofar as abnormal returns reflect profits from rent-seeking activity, then a higher rate on entrepreneurial labor is likely warranted (Rothschild and Scheuer, 2016).

A third possibility, suggested by Jones (2019), is that abnormal returns—or at least a portion thereof—reflect rewards for successful innovations that generate positive externalities. For example, the billions of dollars reaped by Travis Kalanick and other Uber founders in the company’s 2019 initial public offering might be thought of as compensation for the idea of peer-to-peer ride-sharing on a mobile platform. However, Kalanick and his co-founders cannot capture the full social value of their idea due to the limits of intellectual property protection and competition from later entrants such as Lyft, Via, and Juno. A reduced tax rate on Kalanick’s abnormal returns might function as a sort of second-best Pigouvian subsidy for innovative activities that are difficult to target directly.

Yet even if one rejects this last argument and favors a higher tax rate on abnormal returns, this does not lead ineluctably to support for a mark-to-market income tax. First, abnormal returns are captured in the base of a consumption tax (see Bankman and Weisbach

(2006) for a discussion), so the objective of taxing abnormal returns could be accomplished by adopting a consumption tax in addition to a wealth tax. Second, the retrospective capital gains tax can be modified to capture abnormal returns directly. One way to accomplish this result would be to set the tax upon realization such that the taxpayer is in the same position as she would have been under a mark-to-market income tax if all abnormal gains or losses had occurred immediately after acquisition and the asset had grown at the risk-free rate thereafter (Auerbach and Bradford, 2004).<sup>10</sup> A taxpayer selling an asset that had appreciated faster than the risk-free rate would then owe an additional amount upon realization (reflecting a tax on the abnormal return backdated to the acquisition date plus deductible interest), while a taxpayer selling an asset that had fallen in value or appreciated slower than the risk-free rate would claim a corresponding loss (likewise backdated to the acquisition date, plus taxable interest). With modifications along these lines, policymakers could choose a tax rate on abnormal returns that differs (in either direction) from the tax rate on the risk-free return, all while concentrating payment obligations at the time of realization.

### *3. Allocation of Risk*

A third qualification to the claim of rough equivalence among the three regimes concerns the allocation of risk across the private and public sectors. A classic result in the public finance literature is that a single-rate mark-to-market income tax with full loss offsets imposes no burden

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<sup>10</sup> Upon realization, the taxpayer's liability would be the amount calculated according to equation (1) plus an additional charge of  $gB[1 + (1 - t)r]^h$ , where  $g$  is the tax rate on abnormal returns,  $B$  is the difference between the starting price assumed in Auerbach (1991) and the taxpayer's actual basis,  $t$  is the tax on the risk-free return,  $r$  is the risk-free rate of return, and  $h$  is the holding period (Auerbach and Bradford, 2004). This approach has the virtue of preserving the holding period neutrality result in Auerbach (1991). If  $g$  is set equal to the tax rate on wages, this approach also levels the playing field between labor as an employee and entrepreneurial labor supplied at the start of the holding period for new enterprises. On first glance, it might appear to create a disadvantage for entrepreneurial labor supplied after the acquisition date for new-enterprise assets, because taxpayers will face an interest charge dating back to the acquisition date. Entrepreneurs can offset this disadvantage, however, by paying themselves wages instead of taking their compensation in the form of asset appreciation.

on risk-taking (Domar and Musgrave, 1944). Consider a taxpayer who would have placed a \$100 bet on a particular outcome in a world without taxes. With a 50% mark-to-market income tax and full loss offsets, the taxpayer can replicate her previous position by placing a \$200 bet on the same outcome. If she prevails, her after-tax gain will again be \$100; if she loses, her after-tax loss will again be \$100. A similar result holds for an annual wealth tax and a retrospective capital gains tax (see Kaplow (1994) for further discussion).

The Domar-Musgrave result comes with caveats. For one, Domar and Musgrave envision that investors will adjust their portfolios so as to negate the effect of taxes on risky returns. The necessary adjustment will generally be larger for a mark-to-market income tax than for an annual wealth tax. To illustrate: Imagine an individual who—absent taxes—would have placed a \$100 bet on an outcome materializing within a year. To replicate that bet with a mark-to-market income tax rate of 21%, she will need to scale up her bet to \$126.58.<sup>11</sup> To replicate the bet with a 1% wealth tax (assessed at the start of the following year), she need only scale up the bet to \$101.01.<sup>12</sup> The requisite scaling-up under a retrospective capital gains tax, meanwhile, will depend on whether the retrospective capital gains tax is or is not modified to capture abnormal returns. If so, then the taxpayer must make a larger adjustment (similar to an income tax); if not, then the taxpayer need only make a small adjustment (similar to a wealth tax).

Portfolio adjustment is more likely in some contexts than others. Sophisticated high-net worth individuals are perhaps likely to rebalance their holdings of lower-risk fixed-income assets and higher-risk equities in response to tax changes. It is less likely, though, that a middle-income

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<sup>11</sup> If she wins the bet, her after-tax gain will be  $(1 - 0.21)(\$126.58) \approx \$100.00$ . If she loses, her after-tax loss will be  $(1 - 0.21)(-\$126.58) \approx -\$100.00$

<sup>12</sup> If she wins the bet, her wealth as of the following January 1 will increase by \$101.01, reduced by  $(0.01)(\$101.01) \approx \$1.01$  on account of the 1% wealth tax. If she loses the bet, her wealth will decrease by \$101.01, but she will save \$1.01 in wealth tax liability.

household whose wealth lies primarily in owner-occupied real estate will scale up from, say, one home to 1.2658 homes in response to a 21% mark-to-market income tax. Note, though, that no clear normative implication follows from the fact that portfolio adjustments will be costly or unlikely for some taxpayers. In some cases, a higher tax rate on the risky return will prevent taxpayers from achieving their desired level of risk exposure. In other cases, a higher tax rate on the risky return may provide taxpayers with an insurance policy that they desire but otherwise would not be able to purchase (see Varian (1980) and Gentry and Hubbard (2000) for related discussions).

The flip side of the fact that income taxes reduce private-sector risk-bearing is that they shift risk to the public sector. Thus, a mark-to-market income tax will generally give the government a larger share of private-sector gains and losses than an annual wealth tax (though this of course depends upon the tax rate). Regardless of the tax regime, though, the government can adjust its own portfolio position through market transactions (Kaplow, 1994). For example, if the government adopts a mark-to-market income tax but desires the lower-risk portfolio position associated with an annual wealth tax, it can sell synthetic securities that replicate risky-asset cash flows. If it adopts an annual wealth tax but desires the higher-risk portfolio position associated with a mark-to-market income tax, it can purchase shares in private-sector enterprises.

Explicit government interventions—whether on the sell side or the buy side—may face serious political objections from those who see this as the state meddling too much in markets. If tax is the only way for the government to achieve its preferred portfolio position, then the different allocations of risk under an annual wealth tax, a mark-to-market income tax, and a retrospective capital gains tax may indeed affect the choice among capital tax regimes. For example, a mark-to-market income tax with full loss offsets will be a more effective automatic

stabilizer than either of the other regimes. Note, though, that this automatic-stabilizer effect depends upon the government's willingness to allow loss offsets—including, potentially, large refunds to high-net-worth taxpayers in a recession. Popular resistance to the idea of the federal government cutting large refund checks to high-net-worth investors during a downturn may interfere with a policy of full loss offsets. It is thus not immediately obvious that mark-to-market income taxation offers a more politically palatable way for the government to implement an automatic-stabilizer policy than, say, an annual wealth tax or retrospective capital gains tax combined with direct asset purchases.

### **III. THREE TYPES OF UNCERTAINTY**

The analysis above emphasizes the rough equivalence across the three capital taxation regimes as well as a number of subtle differences. A much starker contrast emerges once uncertainty<sup>13</sup> enters the picture. This section explores three types of uncertainty: valuation uncertainty, political uncertainty, and constitutional uncertainty.

#### **A. Valuation Uncertainty**

Valuation uncertainty, as the term suggests, refers to uncertainty about the value of assets that do not have readily determinable market prices. In some cases, valuation uncertainty reflects information asymmetries between taxpayers and tax authorities (e.g., the taxpayer knows that her painting is a Picasso but tells the tax authority that it was the work of a little-known artist). In other cases, the lack of price-relevant information is symmetrical (e.g., neither the taxpayer nor the tax authority knows how much Picasso would sell for at auction). Whether asymmetric or

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<sup>13</sup> Asset price risk, discussed above, can be thought of as a type of uncertainty as well. Note again, though, that unlike the uncertainties discussed in this section, asset price risk does not have clear normative implications for the choice among an annual wealth tax, a mark-to-market income tax, and a retrospective capital gains tax.



symmetric, valuation uncertainty has important implications for the choice among capital taxation regimes.

Valuation uncertainty is often cited as a serious obstacle to a wealth tax (e.g., Repetti, 2000). The vulnerability of a wealth tax to valuation uncertainty is exacerbated if—as with Warren’s proposal—the tax incorporates a large per-taxpayer exemption. To illustrate: If a household has a “true” net worth of \$100 million but reports a net worth of \$70 million to tax authorities, the government loses 30% of wealth tax revenue from that household on account of undervaluation. Under the Warren proposal, with a \$50 million per-household exemption, the revenue loss would be 60%. Intuitively, the fraction of revenue lost to undervaluation will be greater than the fraction of wealth that is hidden from tax authorities if the wealth tax incorporates an exemption amount.<sup>14</sup>

Revenue loss is, to be sure, not the only potentially undesirable consequence of valuation uncertainty. The costs of appraising property without an easily determinable market value (and of auditing some or all of those appraisals) are social costs that ought to be added to welfare analysis of a wealth tax. These costs are likely to be small relative to revenue, however. The Treasury Department and the Office of Management and Budget estimate that Schedules A through F and K of the Form 706 federal estate tax return, which record the value of assets and debts, consume approximately 567,000 person-hours per year (Office of Information and

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<sup>14</sup> Saez and Zucman (2019, pp. 1-2) appear to overlook this point when they write that:

[A]bsent tax avoidance, the [Warren] wealth tax would raise \$250 billion in 2019. . . . Based on the four published academic studies of wealth taxes abroad, we assumed that the rich would shelter 15% of their wealth, leading to our \$212 billion revenue estimate.

Note that \$212 billion is 85% of \$250 billion. Either the authors are overestimating the amount that would be raised after the rich shelter 15% of their wealth or they are underestimating the amount that would be raised absent tax avoidance, because the former figure will necessarily be less than 85% of the latter (given a \$50 million exemption for the 2% wealth tax and a \$1 billion exemption from the 1% surtax).

Regulatory Affairs, 2019). Considering that Warren’s wealth tax would apply to approximately six times as many taxpayers as the number who file federal estate tax returns each year (Saez and Zucman, 2019), this would suggest that valuation activities associated with a wealth tax on households with a net worth of \$50 million or more would impose a compliance burden of approximately 3.4 million person-hours per year, or slightly more than 45 hours per return. Even at a rate of \$100 per hour (nearly four times the average hourly pay for appraisers and assessors of real estate; see Bureau of Labor Statistics, 2019), this would amount to a total cost of \$340 million per year—less than 0.2% of the \$212 billion in revenue that Saez and Zucman (2019) estimate the tax would raise, and still well below 2% of the \$25 billion low-end revenue estimate suggested by Lawrence Summers and Natasha Sarin.<sup>15</sup> Audit costs will add to this total, but only modestly.

Beyond these valuation-related costs, the interaction between a wealth tax and valuation uncertainty will likely generate allocative inefficiencies due to differential observability of price across asset types. Investors in privately held enterprises may be able to undervalue their holdings for wealth tax purposes, while shareholders of publicly traded companies may not be. The effective wealth tax rate on public companies thus may be higher than the effective rate on private ones. The gap in effective tax rates due to differential observability may then distort firms’ financing decisions. For example, a firm like Uber might decide not to offer its shares on public equity markets—even if a public offering would be the most efficient means of raising capital—because a more transparent valuation will lead to a larger wealth tax bill for shareholders. For similar reasons, a wealth tax may encourage high-net-worth households to shift

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<sup>15</sup> Summers, Laurence H., and Natasha Sarin, “A ‘wealth tax’ presents a revenue estimation puzzle,” *Washington Post*, April 4, 2019, <https://www.washingtonpost.com/opinions/2019/04/04/wealth-tax-presents-revenue-estimation-puzzle>.

their portfolios (inefficiently) towards real estate, artwork, and other hard-to-value asset types,<sup>16</sup> or to make their holdings more complex so that valuation becomes more difficult.

Like an annual wealth tax, a mark-to-market income tax is highly vulnerable to valuation uncertainty. A relatively small deviation between the reported value and the true value of an asset will have a correspondingly small effect on wealth tax revenues but could reverse the sign of mark-to-market income tax revenues. For example, if an asset with an initial value of \$100 rises in value to \$105 but the taxpayer (intentionally or unintentionally) misreports the value as \$95, the effect on revenue under a 1% annual wealth tax will be modest: the government will raise \$0.95 instead of \$1.05. Under a mark-to-market income tax with full loss offsets at a 21% rate, the effect of the same undervaluation is dramatic: a tax liability of \$1.05 turns into a tax refund of \$1.05. In other words, the same undervaluation would reduce revenue by less than 10% under an annual wealth tax but by 200% under a mark-to-market income tax.

Weighing in the other direction, a mark-to-market income tax incorporates a backstop against undervaluation: the tax benefit from undervaluation is recaptured at the time of an arm's-length sale. If the risk-free interest rate is zero, then a mark-to-market income tax will recapture at the time of sale all of the benefit that a taxpayer derives from interim undervaluations. When interest rates are positive (as they generally are), however, recapture will not be complete: a taxpayer who undervalues an asset under a mark-to-market income tax will then gain a time-value-of-money advantage even though the nominal benefit from undervaluation is recaptured at realization.

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<sup>16</sup> In theory, the distortion could go in the opposite direction: If aggressive audits and the threat of substantial penalties cause taxpayers to overstate the value of illiquid assets for wealth tax purposes, a wealth tax may lead to an inefficient reallocation of capital away from hard-to-value assets and toward publicly traded securities.

To a first approximation, the benefit to a taxpayer of undervaluation is the same across otherwise-equivalent annual wealth and mark-to-market taxes. If a taxpayer under an annual wealth tax at rate of  $w$  assessed on January 1 of each year persuades the tax authority that an asset is worth \$5 less than it is, she will save \$5 $w$  at the start of each year—or \$5 $w(1 + r)$  at the end of the year—until the asset is sold and its true value is revealed. If a taxpayer under a mark-to-market income tax persuades the tax authority that she has suffered a \$5 loss when in fact she has not, she will derive a benefit equal to the receipt of an interest-free loan of \$5 $t$  that is repaid upon realization. Not coincidentally, these two benefits are equal if  $w(1 + r) = rt$ , or  $w = rt/(1 + r)$ , as we have assumed is the case.<sup>17</sup> Importantly, though, the equivalence between the tax benefits of undervaluation in a mark-to-market income tax and an interest-free loan repaid at the end of the holding period presumes that the tax remains in place at the time that the asset in question is sold. If the tax is repealed, then the interest-free loan is effectively forgiven. If the tax rate is reduced, then forgiveness is partial. In this respect, valuation uncertainty and political uncertainty have compounding effects under a mark-to-market regime.<sup>18</sup>

Retrospective capital gains taxation addresses valuation uncertainty by delaying taxation until the time of an arm's-length transaction, at which point the sale price serves as a relatively reliable approximation of value. Valuation difficulties still may arise in the context of asset swaps, though these are likely to be less frequent than asset sales for which the purchase price is paid in cash. A retrospective capital gains tax that treats death as a realization event reintroduces many of the valuation challenges discussed above, but to a much lesser extent: the task of assigning values to illiquid assets once per lifetime is not nearly as daunting as the challenge of

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<sup>17</sup> See *supra* note 5.

<sup>18</sup> Undervaluation also has the potential to destroy holding period neutrality under an annual wealth tax or a mark-to-market income tax. A taxpayer may be reluctant to exchange an asset for cash if the asset has been persistently undervalued.

annual valuation (Kopczuk, 2013). For these reasons, the reduction of valuation uncertainty is often cited as a key advantage of a retrospective capital gains tax over its alternatives—and rightly so (Auerbach, 1991; Auerbach and Bradford, 2004; Kwak, 2015).<sup>19</sup>

## **B. Political Uncertainty**

Political uncertainty refers to uncertainty about the durability of a tax regime due to the possibility of future amendment or repeal. Any of the three capital taxation regimes evaluated here would be of inevitably uncertain duration. Knowledge that the tax in question may be ephemeral will affect the way that taxpayers respond.

The effect of political uncertainty on the operation of an annual wealth tax is relatively muted. A taxpayer who believes that an annual wealth tax will be repealed a year from now still must assess the value of her assets this year and pay tax accordingly. Of course, if and when an annual wealth tax is repealed, it ceases to play any revenue-raising or redistributive function. But until it is repealed, the shadow of repeal does not significantly undermine the tax's operation. If anything, the likelihood of repeal in the near term reduces a taxpayer's incentive to take actions that hide the value of assets from tax authorities, because the benefits from hiding value will accrue for only a few more years. For example, an annual wealth tax that is certain to persist may

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<sup>19</sup> Relatedly, since a retrospective capital gains tax would not require any more information than taxpayers already report and would not raise significant illiquidity concerns, the tax could be applied relatively easily to the entire population. Taxpayers presumably could rely on software solutions to perform the calculation in equation (1).

For an annual wealth tax or a mark-to-market income tax, liquidity and valuation-related challenges may counsel in favor of a large exemption that spares low- and middle-income households from having to wrestle with these issues. For an annual wealth tax, however, a large exemption would increase exposure to valuation uncertainty (see text accompanying note 14) and, moreover, would open the door to a number of avoidance opportunities, such as transfers among extended family members so as to reduce the amount of wealth above the exemption amount held by any one household.

Incorporating an exemption into a mark-to-market income tax raises additional challenges. While an exemption for taxpayers with income below a certain threshold might reduce some valuation-related administrative and compliance costs, it would also create additional administrative and compliance costs because taxpayers and tax authorities would have to keep careful track, year to year, of which changes in value have been accounted for under the mark-to-market system and which changes await taxation at realization. Asset-specific exemptions (e.g., for owner-occupied homes or for personal consumer items such as jewelry) would potentially distort investment and consumption decisions. For further discussion of exemptions under a mark-to-market regime, see Miller (2016).

cause a publicly traded firm to go private, but an annual wealth tax that is likely to be repealed in just a few years might not.

The interaction between political uncertainty and a mark-to-market income tax is more complicated. As noted above, recapture of unreported gain at the time of sale serves as a backstop against undervaluation in a mark-to-market income tax regime, especially when interest rates are low, but this backstop recedes if the tax is likely to be rescinded. Political uncertainty also may affect the willingness of policymakers to allow refunds in the event of a recession. A mark-to-market income tax with full loss offsets could be a net revenue loser if implemented shortly before a recession and repealed shortly after. The effects of political uncertainty may be more salubrious if uncertainty discourages costly avoidance. As with an annual wealth tax, uncertainty as to the duration of a mark-to-market income tax may deter taxpayers from taking actions that render asset values more opaque (e.g., taking a publicly traded company private).

The effect of political uncertainty is most pronounced in the case of a retrospective capital gains tax. Anticipation of repeal or of a rate reduction will reintroduce the holding-period distortion that retrospective capital gains taxation would otherwise eliminate (Kamin and Oh, 2019). At the extreme, if everyone expects that a retrospective capital gains tax will be repealed in the near future, then everyone has an incentive to delay realization (and thus taxpaying) until after repeal. A retrospective capital gains tax that lasts for a few years and then is repealed could raise little revenue while distorting the allocation of capital.

The problem that political uncertainty poses for a retrospective capital gains tax has no easy solution. One possibility is to encourage taxpayers to “prepay” their retrospective capital gains tax and to impose a penalty interest rate on those who do not. For example, if a taxpayer held an asset for two years and sold it for \$110.25 at the end of 2021, the expectation would be

that the taxpayer would have pre-paid \$1.05 at the end of 2020, with an additional \$1.10 due at the end of 2021 (assuming again a 5% rate of return and a 21% tax rate). If the taxpayer paid less than \$1.05 at the end of 2020, she would face a penalty over and above the existing deferral charge. The hope would be that prepayments would not be returned in the event of repeal, and thus the retrospective capital gains tax would be a revenue-raiser regardless of its duration (so long as the penalty were set high enough to induce prepayment). Even a prepayment system would be exposed to political uncertainty, however, as a future government might choose to return prepayments when the retrospective capital gains tax is repealed. Ultimately, then, the only way to effectively manage political uncertainty under a retrospective capital gains tax may be to build a broad and durable coalition in support of the policy.

### **C. Constitutional Uncertainty**

Constitutional uncertainty refers to the possibility that a capital taxation regime will be invalidated by the courts. Of the three regimes, an annual wealth tax is the one for which constitutional uncertainty is highest. Constitutional uncertainty surrounding a mark-to-market income tax is low (though not entirely absent), and constitutional uncertainty regarding a retrospective capital gains tax is fairly rounded to zero.

The constitutional concern with an annual wealth tax pertains to two provisions: Article I, Section 2, Clause 3, and Article I, Section 9, Clause 4. The former clause provides that “[r]epresentatives and direct taxes shall be apportioned among the several states . . . according to their respective numbers.”<sup>20</sup> The latter says that “[n]o capitation, or other direct, tax shall be laid, unless in proportion to the census or enumeration herein before directed to be taken.”

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<sup>20</sup> The rest of the clause specifies that, for purposes of apportionment, a state’s population includes the whole number of “free persons” and “three fifths of all other Persons” (i.e., slaves). Section 2 of the Fourteenth Amendment explicitly overrides the three-fifths provision with respect to the apportionment of representatives but does not address direct taxation.

Apportionment in this context means that revenue must be prorated among the states on the basis of population (e.g., if California constitutes one-sixth of the U.S. population, it must supply one-sixth of the direct tax revenue—neither more nor less). These provisions present the challenge of determining what, if anything, is a “direct tax” subject to the apportionment requirement.

Supreme Court case law on the subject is relatively thin. In the 1795 case of *Hylton v. United States*, the Court ruled that a yearly \$16 tax on carriages was not a direct tax subject to apportionment. In the days before the Court issued majority opinions, Justice Samuel Chase—writing only for himself—said that “[t]he rule of apportionment is only to be adopted in such cases where it can reasonably apply,” and not where it would result in “very great inequality and injustice.”<sup>21</sup> Justice Chase’s view would seem to support the constitutionality of an unapportioned wealth tax, because apportionment of the wealth tax would lead to large disparities between richer and poorer states.

Alas, Justice Chase’s solo opinion in *Hylton* is not the last word on the subject. In a trio of cases from 1869 to 1880, the Court clearly stated that the category of direct taxes includes taxes on the value of real property.<sup>22</sup> The Court went several steps further in the 1895 case *Pollock v. Farmers’ Loan and Trust Co.*, when it held that taxes on real and personal property—as well as taxes on the income from real and personal property—were direct taxes.<sup>23</sup> The holding of *Pollock* was repudiated by the Sixteenth Amendment, ratified in 1913, which provides that

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<sup>21</sup> *Hylton v. United States*, 3 U.S. (3 Dall.) 171, 174 (1796).

<sup>22</sup> See *Veazie Bank v. Fenno*, 75 U.S. (8 Wall.) 533, 544 (1869) (“It may be rightly affirmed, therefore, that in the practical construction of the Constitution by Congress, direct taxes have been limited to taxes on land and appurtenances, and taxes on polls, or capitation taxes.”); *Scholey v. Rew*, 90 U.S. (23 Wall.) 331, 347 (1874) (“Taxes on lands, houses, and other permanent real estate have always been deemed to be direct taxes, and capitation taxes, by the express words of the Constitution, are within the same category, but it never has been decided that any other legal exactions for the support of the Federal government fall within the [direct tax category.]”); *Springer v. United States*, 102 U.S. 586, 602 (1880) (“[D]irect taxes, within the meaning of the Constitution, are only capitation taxes . . . and taxes on real estate.”).

<sup>23</sup> *Pollock v. Farmers’ Loan & Trust Co.*, 157 U.S. 429, 558 (1895).



“taxes on incomes, from whatever source derived,” are exempt from the apportionment requirement. The Sixteenth Amendment did not, however, explicitly repeal the direct tax clauses. Indeed, during the Senate debate over the Sixteenth Amendment, Senator Anselm McLaurin of Mississippi proposed that the references to “direct taxes” in Article I be stricken entirely, but Senator Norris Brown, who proposed the initial version of the amendment, specifically rejected that suggestion (Jensen, 2002).

A federal tax on the value of real property could potentially be reconciled with the apportionment requirement if revenues from each state were rebated to residents from that state on a per-capita basis. The tax on real estate would then be “apportioned among the several states . . . according to their respective numbers”: net revenue from each state would be equal to its population multiplied by zero. State-to-state disparities would be nontrivial, but not enormous: a 2% wealth tax on households with a net worth above \$5 million—with revenues from real assets rebated to state residents—would result in a rebate of approximately \$274 per person in Connecticut and \$2 per person in West Virginia. Absolute disparities would be even smaller if, as under Warren’s proposal, the exemption were set at \$50 million rather than \$5 million. Rebating the real property portion of wealth tax collections would reduce net revenue, but not hugely: according to IRS data, real property constitutes 14% of total assets for households with net worth above \$5 million and 7% of total assets for households with net worth above \$50 million.<sup>24</sup>

Most worryingly for wealth tax proponents, a series of post-Sixteenth Amendment decisions have suggested that the category of direct taxes includes not only taxes on the value of real property but also taxes on the value of personal property. In the 1920 case *Eisner v.*

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<sup>24</sup> All of these calculations are based on the IRS Statistics of Income Division’s Personal Wealth Statistics for 2013 (the most recent year for which personal wealth data is available from the Service).

*Macomber*, the Court stated that the Sixteenth Amendment did not “repeal or modify, except as applied to income, those provisions of the Constitution that require an apportionment according to population for direct taxes upon property, real and personal.”<sup>25</sup> Again in the 1945 case *Fernandez v. Wiener*, the Court said that “Congress may tax real estate or chattels *if the tax is apportioned . . .*”<sup>26</sup> Finally and most recently, in *National Federation of Independent Business v. Sebelius*, Chief Justice Roberts—in the course of upholding the Affordable Care Act’s individual mandate—said that even after the Sixteenth Amendment, “we continued to consider taxes on personal property to be direct taxes.”<sup>27</sup>

Leading legal scholars have argued in the years before and after *NFIB v. Sebelius* that the category of direct taxes does not include a national wealth tax, even if the wealth tax includes real property in its base (Ackerman, 1999; Johnsen & Dellinger, 2018). Whether or not one is persuaded by these scholars’ arguments, it is difficult to say with confidence that the Supreme Court as currently composed will find the arguments persuasive as well. An annual wealth tax would thus be clouded by constitutional uncertainty, at least until the Supreme Court resolved the question one way or the other.

Constitutional uncertainty with respect to a mark-to-market income tax is more muted. A mark-to-market income tax is, after all, an income tax, and the Sixteenth Amendment makes clear that income taxes need not be apportioned. What is not quite so clear is whether the word “incomes” in the Sixteenth Amendment includes unrealized gains. The worst case for mark-to-market income tax proponents is *Eisner v. Macomber*, which states—albeit in dicta—that “income” is “*not a gain accruing to capital, not a growth or increment of value in the investment;*

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<sup>25</sup> *Eisner v. Macomber*, 252 U.S. 189, 206 (1920).

<sup>26</sup> *Fernandez v. Wiener*, 326 U.S. 340, 352 (1945) (emphasis added).

<sup>27</sup> *National Federation of Independent Business v. Sebelius*, 132 S. Ct. 2566 (2012).

but a gain . . . severed from the capital.”<sup>28</sup> This language has led to suggestions that a tax on unrealized gains would not be an income tax for purposes of the Sixteenth Amendment’s exemption to the apportionment rule (e.g., Ordower, 1993).

*Eisner* is nearly a century old. In the years since, the Supreme Court has several times suggested that the constitutional category of income may be more capacious than *Eisner*’s conception.<sup>29</sup> Congress, for its part, has imposed a mark-to-market requirement for certain futures contracts and options in section 1256 (without apportionment), and the U.S. Court of Appeals for the Ninth Circuit has held that the provision lies “well within” Congress’s authority under the Sixteenth Amendment.<sup>30</sup> Even so, the Supreme Court’s refusal to repudiate *Eisner* in express terms allows some uncertainty about the constitutionality of an unapportioned mark-to-market income tax to linger.

A retrospective capital gains tax, by contrast, fits snugly within the Supreme Court’s definition of taxes that need not be apportioned among the states. Article I, Section 8, Clause 1 of the Constitution grants Congress “power to lay and collect taxes, duties, imposts and excises, to provide for the common defence and general welfare”—a phrase that presumes some category of revenue-raising measures that are not “taxes” and thus not “direct taxes.” The Court has said that a levy that arises on a “particular occasion”—such as the transfer of property by sale or exchange or at death—is a “duty or excise,” and thus not a “direct tax” subject to the apportionment requirement.<sup>31</sup> A retrospective capital gains tax—whether or not it treated death as a realization

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<sup>28</sup> *Eisner v. Macomber*, 252 U.S. 189, 207 (1920).

<sup>29</sup> See, e.g., *Commissioner v. Glenshaw Glass Co.*, 348 U.S. 426, 431 (1955) (*Eisner* “was not meant to provide a touchstone to all future gross income question”).

<sup>30</sup> *Murphy v. United States*, 992 F.2d 929, 931 (9th Cir. 1993). The Ninth Circuit in *Murphy* relied on the fact that the taxpayer, an investor in commodity futures contracts, had the right to withdraw gains daily. The court does not say whether it would have reached the same result if the mark-to-market requirement had been applied to a less liquid asset.

<sup>31</sup> See *Scholey v. Rew*, 90 U.S. 331 (1874); *Knowlton v. Moore*, 178 U.S. 41 (1900); *New York Trust Co. v. Eisner*, 256 U.S. 345 (1921); *Fernandez v. Wiener*, 326 U.S. 340 (1945).

event—would satisfy this criterion. Of course, a proposition that is widely accepted by lawyers at one moment can be rejected by a majority of the Supreme Court soon thereafter; consider, for example, the Commerce Clause challenge to the Affordable Care Act, which was initially dismissed as frivolous by legal experts but ultimately endorsed by five justices (Hyman, 2014). Subject to the caveat that nothing in constitutional law is absolutely certain, however, the constitutionality of a retrospective capital gains tax is not in serious doubt.

Constitutional uncertainty is an important consideration in tax system design. Constitutional uncertainty associated with an annual wealth tax may provide policymakers with a powerful reason to choose a mark-to-market income tax or retrospective capital gains tax instead. Note, though, that constitutional uncertainty is qualitatively different from the other uncertainty types in that it can be (more or less) resolved. If the Supreme Court were to uphold an annual wealth tax, then constitutional uncertainty would fast fade (though it would not disappear entirely, as *stare decisis* “is not an inexorable command”<sup>32</sup>). By contrast, the effects of valuation uncertainty and political uncertainty will linger as long as asset values are not readily verifiable and political winds are susceptible to shifts.

#### **IV. CONCLUSION**

Consistent with the theme of this 49th Annual Spring Symposium—“Certain Uncertainty”—this essay has sought to illustrate the important role that uncertainty will play in the implementation and operation of a comprehensive capital taxation regime, whether it be an annual wealth tax, a mark-to-market income tax, or a retrospective capital gains tax. An annual wealth tax can be understood as trading high exposure to valuation uncertainty and constitutional

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<sup>32</sup> *Payne v. Tennessee*, 501 U.S. 808, 828 (1991).

uncertainty for low exposure to political uncertainty. A retrospective capital gains tax does the opposite: it is highly vulnerable to political uncertainty but much less so to valuation uncertainty and constitutional uncertainty. A mark-to-market income tax, like an annual wealth tax, is highly vulnerable to valuation uncertainty, but unlike an annual wealth tax, it is also exposed to political uncertainty. And while a mark-to-market income tax is not as vulnerable to constitutional uncertainty as an annual wealth tax, it is also not as secure in this regard as a retrospective capital gains tax.

Importantly, the alternatives considered here are not mutually exclusive. Lawmakers concerned about the constitutional uncertainty surrounding an annual wealth tax but otherwise attracted to the idea might, for example, enact an annual wealth tax with a “fallback law” providing for a retrospective capital gains tax if the wealth tax is struck down by the Supreme Court (see Gamage (2019) for a discussion of wealth tax fallbacks and Dorf (2007) for an overview of “fallback” provisions in other contexts). Legislators attracted to a mark-to-market regime but concerned about valuation uncertainty might opt for a hybrid approach, with mark-to-market taxation of publicly traded securities and a retrospective capital gains tax for less liquid assets (see Miller (2016) for a similar proposal). Fallbacks can be disruptive, and different tax regimes for different asset types give rise to potential arbitrage opportunities (Weisbach, 1999). Constructing a capital taxation system that is either contingent upon court decisions or that differentiates among asset types will thus entail a set of difficult design challenges beyond those considered here.

Ultimately, the analysis in this essay does not yield a single “best” answer in light of the uncertainties limned above. What it does do, hopefully, is to highlight for policymakers some of the most salient considerations favoring each approach. If popular support appears to be strong

and durable, then a retrospective capital gains tax has significant advantages over the alternatives, as it minimizes valuation uncertainty and effectively eliminates constitutional uncertainty. But the success of a retrospective capital gains tax regime requires a broad consensus around an idea that, as yet, has been largely absent from the national tax policy debate.

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