ARE THERE DIFFERENCES BETWEEN WEALTH AND INCOME TAXATION? YES, BUT LESS THAN WE THINK

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Abstract

The debate between wealth and capital income taxation has raged for the past decade, recently growing in intensity at both the academic and political level. Rather than engage directly in that debate, this Article asks more preliminary but fundamental questions regarding the extent of differences and similarities between wealth and income taxes. It is found that wealth and income taxation are almost completely equivalent such that both can be structured in ways that will put the government and taxpayers in the same after-tax position. The only difference comes in a slight increase in demand for risky assets under an income tax as compared to an otherwise equivalent wealth tax. Both taxes can thus be used to impose the same tax burden and achieve the same level of fairness and redistribution, however those terms may be defined. This has direct implications for everything from theoretical definitions of wealth, to optimal taxation, to the very constitutionality of a wealth tax. The question of wealth versus income taxation is argued to have been used as a smokescreen for another debate of paramount importance, that between accrual and realization-based taxation. Although wealth taxes have served as the quintessential accrual-based tax and the income tax as an example of realization, both can be structured as either equivalent accrual-based taxes, or equivalent realization-based taxes. The meaningful discussion is not between wealth or income taxation, but between accrual and realization.

Introduction

The debate between wealth and capital income taxation has been framed as being between two diametrically opposed ways of taxing accumulated savings. The first option, notably promoted by Emmanuel Saez and Gabriel Zucman, argues that the effective taxation of capital and savings requires the introduction of a levy on wealth in the form of a wealth tax.[1] The second, which has the support of Natasha Sarin and Lawrence Summers, responds that a wealth tax would be ineffective and that Congress should instead focus on eliminating the key flaws of the capital income tax.[2] The issue is far more than academic in nature and has garnered extensive public and political attention, partly because of attention-grabbing headlines as to how the nation's wealthiest pay less in taxes compared to the average American.[3] This embedded premise, that the current capital gains regime diverges from commonly accepted notions of efficiency and fairness, is accepted by every serious student of tax policy.[4] Yet disagreement on how best to reform the

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[1] Emmanuel Saez & Gabriel Zucman, *Progressive Wealth Taxation*, 2019 BROOKINGS PAPERS ON ECONOMIC ACTIVITY 437 (2019). *See also* David Gamage, *The Case For Taxing Labor Income, Consumption, Capital Income, And Wealth*, 68 TAX LAW REVIEW 355 (2015). In what may have become the most read popular discussion of taxes in recent memory, Thomas Piketty proposed wealth taxation in THOMAS PIKETTY, CAPITAL IN THE TWENTY-FIRST CENTURY (2014).

[2] Natasha Sarin et al., *Rethinking How We Score Capital Gains Tax Reform* (Nat'l Bureau of Econ. Research, Working Paper No. 28362, 2021); Lawrence H. Summers, *Would a Wealth Tax Help Combat Inequality?*, *in* COMBATING INEQUALITY: RETHINKING GOVERNMENT'S ROLE 141 (Olivier Blanchard & Dani Rodrik eds., 2021). *See also* Wojciech Kopczuk, *Comments and Discussion*, BROOKINGS PAPERS ON ECONOMIC ACTIVITY 512 (2019) (direct reply to Saez and Zucman); Florian Scheuer & Joel Slemrod, *Taxing Our Wealth*, 35 THE JOURNAL OF ECONOMIC PERSPECTIVES 207 (2021) (for a more neutral discussion).

[3] The most famous example of this is Warren Buffett saying that he pays less in taxes compared to his secretary: *see* Chris Isidore, *Buffett Says He's Still Paying Lower Tax Rates Than his Secretary*, CNN Money (March 4, 2013), https://money.cnn.com/2013/03/04/news/economy/buffett-secretary-taxes/index.html. *See also* Beverly Moran, *Wealth Redistribution and the Income Tax*, 53 HOWARD LAW JOURNAL 319 (2010). For reports in the media about wealth concentration and effective rates *see e.g.* Aimee Picchi, *Richest 25 Americans Have a "True Tax Rate" of Almost Nothing: Report*, CBS News (June 9, 2021), https://www.cbsnews.com/news/income-tax-wealthy-bezos-buffett; Christopher Ingraham, *For the First Time in History, U.S. Billionaires Paid a Lower Tax Rate Than the Working Class Last Year*, Washington Post (Oct. 8, 2019), https://www.washingtonpost.com/business/2019/10/08/first-time-history-us-billionaires-paid-lower-tax-rate-than-working-class-last-year; Richard Rubin & Rachel Louise Ensign, *Is the Income-Tax Rate on the Rich 8%, or 23%? Depends on Whose Math You Use*, the Wall Street Journal (Oct. 10, 2021), https://www.wsj.com/articles/is-the-income-tax-rate-on-the-rich-8-or-23-depends-on-whose-math-you-use-11633874400. *See also See* Jeff Larrimore et al., *Recent Trends in U.S. Top Income Shares in Tax Record Data Using More Comprehensive Measures of Income Including Accrued Capital Gains* (Nat'l Bureau of Econ. Research, Working Paper No. 23007, 2017).

[4] There are substantial divergences between the Internal Revenue Code's treatment of capital and the theory of optimal capital taxation. A discussion of the theory of public economics and optimal taxation can be found in LOUIS KAPLOW, THE THEORY OF TAXATION AND PUBLIC ECONOMICS (2008); ALAN AUERBACH, HANDBOOK OF PUBLIC ECONOMICS. VOLUME 5 (1st ed. 2013); JOSÉ LUIS GÓMEZ-BARROSO, PUBLIC ECONOMICS: A CONCISE INTRODUCTION (2021); WILLIAM S. VICKREY, PUBLIC ECONOMICS: SELECTED PAPERS BY WILLIAM VICKREY (1994). For how systems are important, *see* Joel Slemrod, *Optimal Taxation and Optimal Tax Systems*, 4 THE JOURNAL OF ECONOMIC PERSPECTIVES 157 (1990). Finally, analysis of the current system and how it differs from the above discussions of optimal taxation can be found in *e.g.* Sarin et al., *supra* note 2; JOEL SLEMROD, TAX SYSTEMS (2014); Lawrence H. Summers, *Would a Wealth Tax Help Combat Inequality?*, *in* COMBATING INEQUALITY: RETHINKING GOVERNMENT'S ROLE 141 (Olivier Blanchard & Dani Rodrik eds., 2021); HENRY J. AARON, LEONARD BURMAN & C. EUGENE STEUERLE, TAXING CAPITAL INCOME (2007). *See also* Alvin C. Warren, *US Income Taxation Of New Financial Products*, 88 JOURNAL OF PUBLIC ECONOMICS 899 (2004); Michael P. Donohoe, *The economic effects of financial derivatives on corporate tax avoidance*, 59 JOURNAL OF ACCOUNTING & ECONOMICS 1 (2015); Eric D. Chason, *Naked and covered in Monte Carlo:*

system has been fierce, at the academic level,[5] the political level,[6] both at home and abroad.[7] Rather than directly advocating for either side of the debate, the Article asks a much more fundamental question – just how different are wealth taxes from capital income taxes? It is found that distinctions between wealth and capital income taxes have been dramatically overstated such that the discussion has largely been a debate of semantics rather than one of substance. The two taxes are almost completely equivalent.

There are considerable differences between wealth tax proposals and the current capital income tax, but not because of their nature as levies on wealth or income. The comparison between the present capital income tax and a hypothetical annual wealth tax is misleading since it is not a comparison between apples to apples. Rather, the framing of the debate as one between wealth and income taxes masks the real argument being made between accrual and realization-based taxation. The current capital income tax is realization-based (*i.e.* taxpayers are taxed only when they choose to sell an asset, and only on the gain or loss of said asset). This leads to multiple well-known problems, notably the incentive for taxpayers to accelerate losses and defer the realization of gains.[8] In contrast, wealth taxation is a particular subset of accrual-based taxation, which sees

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a Reappraisal Of Option Taxation, 27 VIRGINIA TAX REVIEW 135 (2007); Del Wright, *Financial Alchemy: How Tax Shelter Promoters Use Financial Products To Bedevil the IRS (and how the IRS helps them)*, 45 ARIZONA STATE LAW JOURNAL 611 (2013). For a discussion regarding the conversion of interest income into capital gains *see* Jeff Strnad, *The taxation of bonds: the tax trading dimension*, 81 VIRGINIA LAW REVIEW 47 (1995).

[5] *See* notes 1-2, *supra*; Robin Morgan, *Valuation: Measuring Wealth under a Wealth Tax* (May 2022) (unpublished S.J.D. dissertation, Harvard University) (on file with the Harvard Law School library, Harvard University) ("*Morgan Valuation*"); Robin Morgan, *The Impact of Wealth Taxes on Cash Flows and Investor Behaviour* (May 2022) (unpublished S.J.D. dissertation, Harvard University) (on file with the Harvard Law School library, Harvard University) ("*Morgan Cash Flows*"); Deborah H. Schenk, *Saving The Income Tax With A Wealth Tax*, 53 TAX LAW REVIEW 423 (2000); Eric Rakowski, *Can Wealth Taxes be Justified?*, 53 TAX LAW REVIEW 263 (2000); David Shakow & Reed Shuldiner, *A Comprehensive Wealth Tax*, 53 TAX LAW REVIEW 499 (2000); Moris Lehner, *The European Experience with a Wealth tax: a Comparative Discussion*, 53 TAX LAW REVIEW 615 (2000); Victor Thuronyi, *The European Experience with a Wealth Tax*, 53 TAX LAW REVIEW 693 (2000).

[6] In addition to wealth taxes, during the 2020 Democratic Primaries Senator Warren proposed a mark-to-market system for capital, set gains tax rates equal to ordinary income rates, making the baseline rate 39.6%: Team Warren, *Ending the Stranglehold of Health Care Costs on American Families*, https://medium.com/@teamwarren/ending-the-stranglehold-of-health-care-costs-on-american-families-bf8286b13086 (last visited March 6, 2020). For Senator Sanders' proposal, see *Tax on Extreme Wealth*, https://berniesanders.com/issues/tax-extreme-wealth/ (last visited Apr 4, 2020). For legislative bills *see* the Ultra-Millionaire Tax Act of 2021, H.R. 1459, 117th Cong (2021) [hereinafter the "Ultra-Millionaire Tax Act"] (at the federal level; note Senators Warren and Sanders as co-sponsors); AB-310, 2021-2022 Gen. Assemb. Reg. Sess. (Ca. 2021) (at the state level); and *see* NY Senate Bill S4482 (introduced Feb 2021) (note this is a mark-to-market accrual-based capital income tax). For press coverage, *see* Robert Frank, Billionaires in New York could pay $5.5 billion a year under new tax (CNBC Jul. 21 2020), https://www.cnbc.com/2020/07/21/billionaires-in-new-york-could-pay-5point5-billion-a-year-under-new-tax.html (reporting on the NY Senate Bill).

[7] In 2020 the United Kingdom's Wealth Tax Commission released a final report regarding the potential application and desirability of annual and one-time wealth taxes: Arun Advani, Emma Chamberlain & Andy Summers. *A Wealth Tax for the UK: Wealth Tax Commission Final Report. Wealth Tax Commission* (2020), https://www.wealthandpolicy.com (background papers available as well).

[8] *See e.g.* Daniel I. Halperin, *Interest in Disguise: Taxing the Time Value of Money*, 95 YALE L.J. 506 (1985); Daniel I. Halperin & Alvin C. Jr. Warren, *Understanding Income Tax Deferral*, 67 TAX L. REV. 317 (2013); Thomas J. Brennan & Alvin C. Warren, *Realization And Lock-In When Interest Rates Are Low.(Response to Yair Listokin, Tax Notes, p. 959, May 16, 2016)*, 152 TAX NOTES 1151 (2016); Charles C. Holt & John P. Shelton, *The Lock-In Effect Of The Capital Gains Tax*, 15 NATIONAL TAX JOURNAL 337 (1962).

taxpayers account annually for the value of their assets.[9] Accrual-based capital income taxes, which have typically been the focus of accrual tax proposals, are levies on the change in asset values in a given period while wealth taxes are levies on the entire amount of an asset's value.[10] Realization differs from accrual by being a product of tax pragmatism, such that comparing wealth taxes to realization-based capital income taxes obfuscates underlying differences between tax theory and optimal tax administration.[11] Accordingly, to compare a realization-based tax with an accrual-based tax is to compare two fundamentally different things. In this article the focus is on engaging in a proper comparison between the accrual-based capital income tax and the annual wealth tax.

Such an apples-to-apples comparison is exactly what took place in the late 20th century regarding the consumption tax. Following Bill Andrews' seminal articles in 1973 and 1974 many in the United States came to view the consumption tax as a popular alternative to the income tax.[12] In fact, a variant of the cash flow consumption tax proposed by David Bradford, known as the X-Tax, almost became law not once but twice during the George W. Bush Presidency and again in the mid 2010s.[13] As scholarship began to accumulate a consensus formed that there was much less difference between taxing money at the time it is withdrawn for consumption compared to taxing income as it is earned than was initially thought. Aside from the risk-free rate being exempt under a consumption tax, most of the differences came in administration: such foundational knowledge is largely missing regarding wealth taxation. The development of the preliminary understanding that exists for income and consumption taxes, but not wealth taxation, is the goal of this paper.

To date most of the literature on wealth taxes has either focussed on inequality or on empirical studies of taxpayer responses to existing wealth taxes, primarily those in Europe.[14] To

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[9] David J. Shakow, *Taxation without Realization: A Proposal for Accrual Taxation*, 134 UNIVERSITY OF PENNSYLVANIA LAW REVIEW 1111 (1986) (for a discussion of accrual taxation specifically in the context of an accrual-based capital income tax).

[10] Formally, one can take a wealth tax as an accrual-based capital income tax where the asset's annual starting value is assumed to be zero. Suppose an asset changes in value from $100 to $110. Under an accrual-based capital income that difference, $110 - $100 = $10, would be taxed. Under a wealth tax we would assume that the original value was not $100, but $0, such that the tax would be levied on $110 - $0 = $110. Under the current realization-based capital income tax the taxpayer would only be taxed on the $10 difference following a realization event, like a sale, hence it is qualitatively different.

[11] *See e.g.* Robin Morgan, *Flawed Foundations: a Re-Examination of the Reason and Purpose Behind the Capital Gains Tax Preference*, 18(2) NYU J. of L. & Bus. (2022) (discussing the centrality of pragmatism in the early income tax); Daniel N. Shaviro, *An Efficiency Analysis Of Realization And Recognition Rules Under The Federal Income Tax*, 48 TAX LAW REVIEW 1 (1992); Deborah H. Schenk, *An Efficiency Approach To Reforming A Realization-Based Tax*, 57 TAX LAW REVIEW 503 (2004).

[12] The seminal articles are William D. Andrews, *A Consumption-Type Or Cash Flow Personal Income Tax*, 87 HARV. L. REV. 1113 (1973) (hereinafter "Andrews 73"); Alvin C. Warren Jr., *Fairness and a consumption-type or cash flows personal income tax*, 88 HARVARD LAW REVIEW 931 (1975); William D. Andrews, *Fairness and the Personal Income Tax: A Reply to Professor Warren Comments*, 88 HARV. L. REV. 947 (1974) (hereinafter "Andrews 74"). *See also* Joseph Bankman & David A. Weisbach, *The Superiority of an Ideal Consumption Tax over an Ideal Income Tax*, 58 STANFORD LAW REVIEW 1413–1456 (2006).

[13] DAVID F. BRADFORD, THE X TAX IN THE WORLD ECONOMY: GOING GLOBAL WITH A SIMPLE, PROGRESSIVE TAX (2004). For a discussion of the politics *see* David A. Weisbach, *A Guide to The GOP Tax Plan -- The Way To A Better Way*, 8 COLUMBIA JOURNAL OF TAX LAW 171 (2017).

[14] *See* note 1, *supra*. For empirical work *see e.g.* Jose M. Duran-Cabre & Alejandro Esteller More, *A Quantitative Assessment of the Net Wealth Tax: The Spanish Experience*, 67 CESIFO ECONOMIC STUDIES 488 (2021); José Ma

be sure, questions of fairness, equity, and social welfare are paramount when discussing taxation. Likewise, knowing how taxpayers will respond (and have responded) to wealth taxes provides critical insight into optimal system design and enforcement. Administration is of first-order importance in any tax system, and a wealth tax is no different.[15] Yet these queries, as important as they may be, must rest within a conceptual framework.

There are three key lessons in this article with direct application to current policy debates. The first and most important takeaway is that there are virtually no differences between income and wealth taxation. This means that the growing debate on whether to tax wealth or income is by and large irrelevant. It may have value in terms of galvanizing the public and generating the necessary political capital for wholesale legal reform, but it is a triviality as a matter of tax policy.

Second, but intimately related, is that the wealth versus income tax debate is really a smokescreen for another debate: accrual versus realization-based taxation.[16] Wealth and income taxes can either take the form of broadly equivalent accrual-based taxes or broadly equivalent realization-based taxes. What Saez and Zucman are advocating for is accrual-based capital taxation that just happens to take the form of a wealth tax, while Sarin and Summers advocate for the retention of the realization-based system that takes the form of an income tax.[17] There are two mutually exclusive axes of the debate: wealth versus income taxation, and accrual versus realization. The first axis (wealth versus income) is largely meaningless, as shown here, but has received a disproportionate amount of attention. The second is a core design feature of a tax system which merits explicit contemporary consideration, and which is where the real contemporary discussion should be happening.

The third and final takeaway is that a wealth tax, because of its equivalence to an income tax, can be structured in a way that minimizes the chance of it being struck down as unconstitutional. Following the recently issued but underdiscussed *PPL Corp* case, the Supreme Court made it clear that it will assess the nature of a tax (*e.g.* whether it is sufficiently similar to an income tax to be classified as such) according to its economic substance and effect.[18] This has direct implications for the Constitutional validity of a wealth tax since, if structured correctly, it can be broadly equivalent to the familiar fixed-rate income tax which is protected under the Sixteenth Amendment.

The Article is divided into four Parts. The first Part examines the concepts of what is wealth, what is a wealth tax, and what is the ideal wealth tax base, relative to the familiar Haig-

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Duran-Cabré, Alejandro Esteller-Moré & Mariona Mas-Montserrat, *Behavioural Responses to the (Re)Introduction of Wealth Taxes. Evidence From Spain*, SSRN ELECTRONIC JOURNAL [hereinafter cited as *Spanish Wealth Tax Avoidance*]; Marius Brülhart et al., BEHAVIORAL RESPONSES TO WEALTH TAXES: EVIDENCE FROM SWITZERLAND (2019); David Seim, *Behavioral Responses to Wealth Taxes: Evidence from Sweden*, 9 AMERICAN ECONOMIC JOURNAL. ECONOMIC POLICY 395 (2017).

[15] An extensive discussion can be found in JOEL SLEMROD & CHRISTIAN GILLITZER, TAX SYSTEMS (2014). For the administration of a wealth tax, *see e.g. Morgan Valuation*, *supra* note 5; Advani, Chamberlain, & Summers, *supra* note 7.

[16] The discussion is outlined in Shakow, *supra* note 9.

[17] Sarin et al., *supra* note 2, are more explicit in their discussion of realization.

[18] *PPL Corp. v. Comm'r of Internal Revenue*, 569 U.S. 329 (2013).

Simons definition of income. Wealth is typically treated as an intuitive concept, but the discussion suggests that legal and economic definitions of wealth are more complicated than has been recognized. The second Part assesses equivalences between capital income taxes and wealth taxes. It is found that wealth taxes are almost completely equivalent to capital income taxes, which has direct implications for the constitutionality of a wealth tax. Contrary to frequently raised arguments advanced against wealth taxation, a wealth tax encourages less private risk taking and lowers demand for risky assets compared to an otherwise equivalent income tax. The third Part analyzes the wealth-income tax debate in relation to accrual and realization, with a focus on administrative constraints, notably valuation under accrual-based taxes. The fourth Part concludes by discussing systems that combine many of the elements of both accrual and realization, known as retrospective taxes, which can likewise be fashioned as either wealth or income taxes.

I. Defining Wealth and Wealth Taxation

I.A. *The Relation of Income and Consumption to Wealth*

Despite burgeoning scholarship on wealth taxation, "wealth" generally escapes definition.[19] We can define it by borrowing from the voluminous income tax literature, where the ubiquitous starting point is the Haig-Simons definition of accretion income:

> Personal income may be defined as the algebraic sum of (1) the market value of rights exercised in consumption and (2) the change in the value of the store of property rights between the beginning and end of the period in question. In other words, it is merely the "wealth" at the end of the period and then subtracting "wealth" at the beginning.[20]

As remarked by Al Warren, the Haig-Simons definition has dominated policy analysis in the United States (and abroad) for more than eighty years despite the availability of other definitions and the Supreme Court adopting a different standard in *Commissioner v. Glenshaw Glass Co*.[21] Note that the emphasis on changes in value of the store of property rights means that income, as defined here, is taken to be accrual (accretion) and not realization-based. Thus, the change in value happens regardless of whether the taxpayer disposes of the asset.

The Haig-Simons definition allows for the seamless transition between concepts of wealth, income, and consumption. This is done in a stylized and simplistic way – Henry Simons himself

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[19] The definition that is given is typically along the lines of wealth equals aggregate assets less aggregate liabilities: *see e.g.* Saez & Zucman, *supra* note 1; Advani, Chamberlain, & Summers, *supra* note 7 (though their discussion likewise engages with he familiar ability-to-pay normative framework). While intuitive and helpful on a base level, this provides limited insight for tax administration and policy.

[20] HENRY C. SIMONS, PERSONAL INCOME TAXATION: THE DEFINITION OF INCOME AS A PROBLEM OF FISCAL POLICY 50 (1938) (Simons built on work by Robert Haig, who in turn built on work by Georg von Schanz). *See* ROBERT MURRAY HAIG, THE FEDERAL INCOME TAX (1921); Georg Schanz, *Der Einkommensbegriff und die Einkommensteuergesetze*, 13 FINANZARCHIV 1 (1896).

[21] Alvin Warren, *Would a Consumption Tax be Fairer Than an Income Tax*, 89 YALE L.J. 1081, 1083-1085 (1979). The original definition of income comes from *Eisner v. Macomber*, 252 U.S. 189 (1920), where the Majority opinion written by Justice Pitney defined income as "the gain derived from capital, from labor, or from both combined, including profit gained through sale or conversion of capital." This was overruled in *Commissioner v. Glenshaw Glass Co*., 348 U.S. 426 (1955), which broadened the definition of income to be "gains or profits and income derived from any source whatever."

described it being little more than an accounting or arithmetic definition, useful as it may be.[22] Wealth, under Haig-Simons, becomes everything that is and has been earned but not consumed: it is a taxpayer's total resources during a period which can be put towards current consumption. A dollar earned from wages or as a return from investment can all be spent just as readily. Leaving aside debt for now, consumption is capped at a taxpayer's income for a given period plus their starting wealth, with income being the change in wealth plus any amount consumed.

Under this formulation wealth is not defined as the potential for future consumption, but is instead a taxpayer's maximum amount of present consumption that could be financed from lifetime income that has not been consumed. Future consumption ultimately depends on a taxpayer's investment portfolio (capital income), wage income, and consumption habits. For example, ignore wage income and suppose that we take the case of a taxpayer that invests their entire wealth of $1000 in highly risky, but liquid, lottery tickets. The fair market value is $1000 at the time of their purchase. If the taxpayer's spouse scolds them for such irresponsible behaviour and realizing their folly the taxpayer immediately resells the tickets, they would be able to finance exactly $1000 in present consumption. Suppose, however, that had the tickets been held they would pay off $5000 after two years.[23] Even if the taxpayer would have a magic crystal ball allowing them to know that the tickets are now worth the discounted present value of $5000 two years from now, the taxpayer would not be able to access that value since the market price of the tickets is $1000. The fact that two years from now the taxpayer would be able to consume $5000 worth of goods is irrelevant to what the taxpayer can presently consume: an asset's intrinsic value is irrelevant to Haig-Simons wealth unless it is reflected in market prices. Paper prices, not intrinsic prices, are what matter.

Another important point derived from Haig-Simons is that a wealth tax is an incomplete tax on consumption. Taken over a lifetime, a consumption tax and an income tax are analogs since a taxpayer's lifetime consumption is capped on their lifetime income.[24] This is not the case for a tax on wealth as, which leaves wage income untaxed if it is immediately consumed. Consider the case of a taxpayer who earns $100 in wages and then immediately spends it. A tax on consumption and a tax on income would both see that $100 dollars taxed, but a wealth tax would levy nothing since the taxpayer has no wealth. This outcome would be different if human capital were subject to taxation which some commentators (notably Louis Kaplow) have argued should be the case.[25] Hence, a wealth tax is only directly comparable to a capital income tax, though would be comparable to a more general income tax if paired with a wage tax.[26]

I.B. Debt's Relationship to Wealth

Over multiple periods wealth is simply the accumulation of all Haig-Simons income that has not been spent on lifetime consumption and, under this framework, debt takes on special

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[22] Simons, *supra* note 20, at 51, 78.
[23] This mimics the growth in bitcoin from 2020 to 2022. *See BTC Historical Data*, NASDAQ, https://www.nasdaq.com/market-activity/cryptocurrency/btc/historical.
[24] This assumes that a taxpayer's bequests are included in consumption and inheritances are treated as income.
[25] Louis Kaplow, *Human Capital under an Ideal Income Tax*, 80 VA. L. REV. 1477–1514 (1994); Louis Kaplow, *On the Divergence Between "Ideal" and Conventional Income-Tax Treatment of Human Capital*, 86 THE AMERICAN ECONOMIC REVIEW 347–352 (1996). *But see* Saez & Zucman, *supra* note 1, at 442 ("It is only in slave societies that human capital can constitute marketable wealth").
[26] *See* Kaplow, *infra* note 49, who assumes such a pairing in his equivalence model.

properties.[27] A taxpayer who takes out a loan has increased the amount of dollars they have to presently consume, but at the cost of an active obligation to reduce future consumption since the principal must be paid back with interest. Mirroring the approach to how debt is treated under cash flow and income taxes, there are at least two different ways in which debt could be included in wealth, depending on how this obligation is treated.[28] First, the loan can be bifurcated into the present dollar amount available to the taxpayer to consume (the borrowed amount) and the future obligation to repay. The future obligation reduces future consumption, but not present consumption. For example, suppose a taxpayer takes out a loan of $100, payable with $10 of interest in the following year. The $100 that the taxpayer borrows would be treated as wealth in the first year. Conversely, the $110 obligation to repay would only be taken into account in the second year since it does not directly reduce consumption in the first year. The reasoning here is that the taxpayer could, in theory, immediately consume the $100 and then declare bankruptcy, avoiding a reduction of consumption based on the obligation to repay the principal and any interest. This would be similar to the approach under a cash flow consumption tax.[29]

The second approach allows future obligations to reduce present stated wealth. In this way the amount that a taxpayer has borrowed must be netted against the future obligation to repay. In our stylized example, this would mean that the $100 increase in current consumption is offset against the $110 repayment obligation, payable in the second year. The debt instrument is treated as a negative asset held by the taxpayer which, if liquidated, would result in a payment. Similarly, the loan proceeds would be treated as cash insofar as they are not consumed.

The Haig-Simons definition of income (and wealth) does not provide ready answers as to which treatment of debt is most appropriate. Wealth tax proposals seem to exclusively follow the second approach, which seems sensible. It largely mirrors the treatment of debt under the present income tax, where the principal goes untaxed either as income or as a deduction while interest is both includible to the lender and deductible to the borrower.[30] If taxpayers see future obligations as binding then their maximum present consumption would indeed be limited by the value of that debt. Moreover, since the debt instrument has positive value to the lender, tax symmetry would suggest that the borrower be allowed to claim that the repayment obligation reduces wealth. It would otherwise likely be an unacceptable policy outcome to allow taxpayers to only include debt as the obligation becomes payable rather than when it accrues, since doing so may clash with

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[27] Under *Glenshaw Glass Co*, *supra* note 21, a similar statement would read: all dollar amounts that a taxpayer has earned, found, or otherwise come in lawful title of, including increases in the value of any property, and which the taxpayer has not yet included in lifetime consumption.

[28] *See e.g.* Joseph M. Dodge, *Exploring the Income Tax Treatment of Borrowing and Liabilities, or Why the Accrual Method Should be Eliminated*, 26 VIRGINIA TAX REVIEW 245 (2006); Charlotte Crane, *Loan Proceeds as Income: a Response to Professor Dodge*, 27 VIRGINIA TAX REVIEW 563 (2008).

[29] This would be the case under a cash flow tax that imposes a levy on real and financial flows. If only real flows are taxed, loans would be excluded altogether. If financial flows are also taxed, then loan proceeds would be includible as income upon receipt and deductible as they are paid back. This is called an "R+F" tax and was first presented by the Meade Commission. The Structure and Reform of Direct Taxation, INST. FOR FISCAL STUDIES (1978); *see also* Weisbach, *supra* note 13, at 177-78.

[30] Note that the principal would be taxed under the wealth tax. David Garlock's treatise on the taxation of debt remains the most comprehensive and deep outline of the rules and policy dimensions: DAVID C. GARLOCK, FEDERAL INCOME TAXATION OF DEBT INSTRUMENTS (6th ed. 2010).

conceptions of ability to pay.[31] While Haig-Simons provides relatively little insight here, it gives just enough to indicate that there are several ways of conceptualizing debt's relation to wealth.

I.C. Haig-Simons and the Theoretical Wealth Tax Base

A wealth tax is thus a levy on the hypothetical maximum amount of present consumption that a taxpayer could finance by selling all of their assets at the time it is levied. The implications of this for defining the wealth tax base are larger than they may seem. Different asset classes can take on different financial characteristics depending on the amount of said asset that is owned, and when their value is measured.[32] While in practice these would be very difficult to account for, Haig-Simons understandings of wealth suggest that they are included within the theoretical framework since they impact the hypothetical maximum amount of a taxpayer's present consumption. Three that are particularly noteworthy are control premiums, large batch-sale discounts, and liquidity discounts. These all apply to shares in private and public companies, though liquidity discounts affect more asset classes than just equity.

Controlling stakes in public or private businesses is a well-known issue for a wealth tax and received dedicated analysis by the U.K.'s Wealth Tax Commission.[33] It can be seen through a quick example. Consider a publicly traded company with 100 shares, each worth $1. If a shareholder has a single share, then they could sell that share and consume $1 worth of goods. Instead suppose the shareholder holds 60 shares – a controlling stake. That control brings with it several benefits. More insidious is the shareholder's ability to siphon off corporate assets for their own benefit, which is a bigger problem in countries with weak minority shareholder protection, while less insidious things are reputational benefits and the reasonable ability to dictate the firm's affairs and business strategy.[34] Regardless, the benefits brought by control have value as well: should the shareholder sell the entirety of their stock then they are selling $60 worth of shares plus that control, which fetches a premium. Control is widely recognized as something to be included in the wealth tax base, and it does indeed fall under Haig-Simons definitions of wealth.[35]

Less obvious is the issue of large batch-sale discounts.[36] To date, this does not seem to have received significant attention by either academics or policymakers.[37] The idea behind batch-

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[31] Again, this would be the case under a cash-flow consumption tax, which has broad support: *see supra* note 29.

[32] *See Morgan Valuation*, *supra* note 5.

[33] Advani, Chamberlain, & Summers, *supra* note 7.

[34] *See e.g.* Alexander Dyck & Luigi Zingales, Private Benefits of Control: An International Comparison, 59 The Journal of finance (New York) 537 (2004) (the most cutting edge and expansive study to date); Michael C. Jensen & William H. Meckling, *Theory of the firm: Managerial behavior, agency costs and ownership structure*, 3 JOURNAL OF FINANCIAL ECONOMICS 305 (1976) (the foundational theoretical work); LUCIAN A. BEBCHUK, A RENT-PROTECTION THEORY OF CORPORATE OWNERSHIP AND CONTROL (1999).

[35] In addition to Advani, Chamberlain, & Summers, *supra* note 7, this point seems to be accepted by Saez & Zucman, *supra* note 1, at 490-94 in their discussion of taxing the control of wealth. Their point is broader and clearly designed to target wealth tax avoidance, but logically includes the benefits of being a controlling shareholder in a corporation since it includes the benefits of controlling charities and foundations.

[36] *See e.g.* ASWATH DAMODARAN, *Marketability and Value: Measuring the Illiquidity Discount*, (2005), https://papers.ssrn.com/abstract=841484; LAURA SPIERDIJK, THEO NIJMAN & ARTHUR VAN SOEST, *The Price Impact of Trades in Infrequently Traded Stocks in Periods of High and Low Market Activity*, (2002), https://papers.ssrn.com/abstract=301833; Louis KC Chan & Josef Lakonishok, *Institutional trades and intraday stock price behavior*, 33 JOURNAL OF FINANCIAL ECONOMICS 173 (1993); G. Saar, *Price Impact Asymmetry of Block Trades: An Institutional Trading Explanation*, 14 THE REVIEW OF FINANCIAL STUDIES 1153 (2001).

[37] This is distinct, but related, to the point regarding control which has received attention as discussed previously.

sales discounts is that a shareholder with large holdings of a particular stock (for example, a controlling shareholder) who decides to sell a large fraction of said holdings both increases the amount of assets for sale, thereby lowering price, and sends a signal to the market that the shares may be overvalued.[38] Ignoring control premiums, if a taxpayer engages in a large batch sale of stock their ultimate proceeds would therefore be less than the number of shares multiplied by their market value. Imagine, for example, Mark Zuckerberg selling off his stake of Facebook (now Meta) – market prices would fall immediately.[39] This would reduce the amount of present consumption that a taxpayer could obtain from liquidating their holdings, hence would have to be taken into consideration under a comprehensive definition of wealth.

Similarly, liquidity discounts encumber assets such that market prices are lower compared to fundamental value. Illiquidity results where there are relatively few market participants, with there typically being more sellers than there are buyers. Because such assets trade infrequently, investors who hold illiquid assets are exposed to liquidity risk since there may not be anyone willing to buy the asset when they need to sell. Andrew Ang recounts the story of a particularly shocking case involving the entity that manages Harvard's endowment, Harvard Management Company (HMC), during the 2008 financial crisis.[40] As markets began to collapse, HMC found itself in a precarious position with about 55% of assets under management being tied up in hedge funds, private equity, real estate, and infrastructure: all classic cases of illiquid assets.[41] As HMC tried to offload these investments a fund manager approached the CIO of HMC, Jane Mendillo:

> FUNDS MANAGER: Hey look, I'll buy it back from you. I'll buy my interest back.
> MENDILLO: Great.
> FUNDS MANAGER: Here, I think it's worth you know, today the value is a dollar, so I'll pay you 50 cents.
> MENDILLO: Then why would I sell it?
> FUNDS MANAGER: Well, why are you? I don't know. You're the one who wants to sell, not me. If you guys want to sell, I'm happy to rip your lungs out. If you are desperate, I'm a buyer.[42]

This story is a particularly egregious case, but it does show the seriousness of the issue especially since empirical analysis suggests a majority of assets held by the wealthiest Americans are indeed illiquid.[43]

Haig-Simons provides us with yet one final, crucial insight into how to define the wealth tax base. Since Harry Markowitz revolutionized portfolio theory in 1952 by proving that diversifying investments is strictly beneficial, diversification has become one of the bedrocks of

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[38] Another way of phrasing this is that the selling of large batches of stock leads to market movements which reduce the value of said stock. If a taxpayer has n stock with a market price of $100, a sale of all n stock may have to happen at an average price of $90, hence the taxpayer does not have n times $100 of wealth. In terms of the informational content of trades *see* Chan & Lakonishok, *supra* note 36.

[39] Something similar has been documented to happen when key employees leave the firm. *See e.g.* Ryan D. Israelsen & Scott E. Yonker, *Key Human Capital*, 52 JOURNAL OF FINANCIAL AND QUANTITATIVE ANALYSIS 175 (2017); XIN LIU & XIAORAN NI, *Key Talent Outflow and Stock Price Crash Risk: Evidence from the Rejection of the Inevitable Disclosure Doctrine*, (2021), https://papers.ssrn.com/abstract=3492463.

[40] ANDREW ANG, ASSET MANAGEMENT: A SYSTEMATIC APPROACH TO FACTOR INVESTING 410 (2014).

[41] *Id.* at 410-11.

[42] *Id.* at 411-12 quoting Nina Munk, *Rich Harvard, Poor Harvard*, VANITY FAIR, Aug. 2009.

[43] *Morgan Valuation*, *supra* note 5.

modern finance.[44] "Diversification" is an intuitive, well-known concept, but it's application to Haig-Simons is far from intuitive or well-known. Suppose that a taxpayer has $100 and can choose to invest in two equivalent Assets, A and B, both of which are fair coin flips. A and B have the same payoff and risk, each asset paying out either 1.5 times the amount of the bet or only half the initial bet, each with a probability of 50%. More concretely, if $100 is invested in Asset A or B, the taxpayer will either receive $150 or $50, each with a probability of 50%. If we accept Markowitz's point that diversification has value because it reduces risk then the investor would choose to pay more for the less risky bundle of assets compared to the riskier one, provided they both have the same expected payoff.

Consider a first case to be where the taxpayer invests all of her $100 in either Asset A or asset B, such that she has paid $100 for a fifty-fifty shot at either getting $150 or $50. Now consider a second case where the taxpayer invests half of her wealth ($50) in Asset A, and another half in Asset B. A $50 investment cuts the payoff in half, such that she either earns $75 or $25 on each asset. We have four scenarios: heads-heads (HH), tails-tails (TT), heads-tails (HT), and tails-heads (TH), where each one has a 25% chance of happening. If both coins land on heads (HH), then she earns $150. If both coins land on tails (TT), then she earns $50. Finally, if one coin lands on heads and the other lands on tails (TH or HT, a 50% chance) then she has walked away with $100.[45]

In both cases the expected payoff is $100. However, the second case has less risk compared to the first, and again, from Markowitz we know that this has value to a risk-averse taxpayer. This is the benefit of diversification, where diversified portfolios are worth more in terms of utility (money) to a taxpayer. Hence, the second diversified portfolio is worth more, in monetary terms, than the first even if they both have the same expected payoff of $100. Another way of thinking about this is a consumer shopping for goods at a hardware store. If the consumer would normally have to travel to two stores to buy two separate goods, she must spend money and time on transit. But if she could buy the two items at the same store, she would be willing to pay more than the price of both items, provided that the extra price markup is lower than her transit costs.

Crucial to the Haig-Simons definition of capital income is the capture of the change in the value of property rights between the beginning and end of a period. The question is whether this change in value is in the total value of all assets as a bundle (*e.g.* a taxpayer sells their house, car, and XCo stock to one buyer as a combined bundle) or the sum of the change in all values taken separately (the taxpayer sells their house, car, and XCo stock separately to three different buyers, and then we add the separate sales prices to get to the total). Diversification shows us that the two ways of measuring wealth are not the same – all assets sold as a bundle will be worth more than the sum of each asset sold individually. Recalling that we defined wealth under Haig-Simons as the maximum amount of present consumption that could be financed from prior earnings that have not been consumed, then the maximum amount of present consumption must include the diversification benefit, hence the proper measure of taxpayer wealth is the hypothetical price that

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[44] Harry Markowitz, *Portfolio Selection*, 7 JOURNAL OF FINANCE 77 (1952).

[45] The expected payoff of each coin is 50% multiplied by $75 + 50% multiplied by $25 = $50. For two coins, the expected payoff would be 2*$50 = $100.

all of a taxpayer's assets bundled together into one portfolio would fetch on the market. Note that this extends to the Haig-Simons concept of income as well.[46]

Of course, such a definition would be totally inoperable and we can see the usefulness of Haig-Simons starts to break down. For one, it would be effectively impossible to value such a bundle and we would run into the same issue of liquidity discounts discussed above, or have to assume them away. It is well known that the Haig-Simons definition of income (and hence wealth) has serious limitations and drawbacks which render its rote application to tax policy undesirable, and this is where we hit our limit for wealth taxes.[47] Nevertheless, it does provide a more nuanced understanding of wealth than the common definition of assets less debt, and the actionable takeaway is that bundling will be required for certain assets or even asset classes to prevent serious leakage of the tax base.[48] Haig-Simons further shoes that capital income and wealth are closely related, and it further reveals that a wealth tax is a partial tax on present consumption and not a comprehensive tax on consumption. Unlike an income tax which includes wage income, a wealth tax must therefore be compared to a disaggregated (from wages) capital income tax.

II. Equivalences Between Capital Income Taxes and Wealth Taxes

II.A. Single Period Equivalences in Tax Receipts and After-Tax Returns

The starting point to assessing equivalence is Louis Kaplow's 1994 article, which showed that a one-period capital income tax can be made equivalent to an ex-ante wealth tax, provided certain requirements are met.[49] Before beginning it is best to define the concept of equivalence. We will use a more general formulation than that used by Kaplow for reasons explored in Part II.C. Because our definition is broader two tax systems will be described as generally, otherwise, or broadly equivalent (as opposed to equivalent) if

1) The taxpayer's after-tax returns for a given period are the same under the two systems, and
2) The government's tax receipts for a given period are the same.[50]

This means that, in monetary terms, the government and taxpayer will be equally situated under two broadly equivalent tax systems. For simplicity we ignore wages such that we only compare

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[46] Recall capital income is the "change in the value of the store of property rights between the beginning and end of the period in question" Simons, *supra* note 20, at 50.

[47] *See e.g.* James Alm, IS THE HAIG–SIMONS STANDARD DEAD? THE UNEASY CASE FOR A COMPREHENSIVE INCOME TAX, 71 NATIONAL TAX JOURNAL 379 (2018); R. A. Musgrave, *In Defense of an Income Concept*, 81 HARVARD LAW REVIEW 44 (1967). Boris I. Bittker, *A "Comprehensive Tax Base" as a Goal of Income Tax Reform*, 80 HARVARD LAW REVIEW 925 (1967).

[48] *Morgan Valuation*, *supra* note 5 (explaining that, at least, such bundling will be required to prevent tax avoidance).

[49] Louis Kaplow, *Taxation and Risk Taking: A General Equilibrium Perspective*, 47 NATIONAL TAX JOURNAL 789 (1994). For related works making similar points, *see* Schenk, *supra* note 5; Shakow & Shuldiner, *supra* note 5; Alan Auerbach & William G. Gale, *Tax Policy Design with Low Interest Rates*, SSRN ELECTRONIC JOURNAL 7-9 2021.

[50] Kaplow introduces a third criteria which is that "the total investment in each asset in [the period] is the same under both regimes." Kaplow, *supra* note 49, at 791. This criteria does not hold since aggregate risk-taking is lower under a wealth tax, *see* Part II.C., *infra*.

wealth to capital income taxation, though the findings would still hold if we compared a general income tax to a wealth tax coupled with a wage tax.[51]

To develop some intuition as to why capital income taxes and wealth taxes are broadly equivalent, imagine some arbitrary year where a taxpayer can invest in risky and riskless assets. At the end of that year, however much the taxpayer earns, the government will collect some percentage under an accrual-based capital income tax. If instead of the capital income tax the government imposes an ex-ante wealth tax, then it can effectively split the investment with the taxpayer by taking a certain portion of that investment from them. With exemption of the proceeds of those assets from taxation everyone is just as well off (or badly off) as they were under the accrual tax. The single period finding is best seen through an example.

Suppose a taxpayer invests her entire wealth into an apple orchard consisting of ten apple trees. These trees grow uniquely quickly, and each tree produces five apples. Suppose the government wants to introduce a new tax on apples and is considering two competing proposals. The first proposal would see it implementing an ex-ante wealth tax thereby levying a certain number of apple trees and transferring ownership of the trees (and their product) to the state. Alternatively, it can introduce an income tax on apples. Thus, the government's two choices are between taxing the trees directly (wealth), or taxing the apples that are produced by those trees (the product of wealth, being income).

We can begin by looking at the impact of the taxes on the government. Under the first wealth tax option the government imposes a 10% wealth tax and collects one tree, which produces five apples. The taxpayer's nine trees produce a total of forty-five apples. Let us assume that the taxpayer chooses to replant one of the apples, thereby spending one apple (leaving her with forty-four) to regrow a tree (leaving her with ten). Hence the government has one tree and five apples, while the taxpayer has ten trees and forty-four apples. Under the second income tax option the government does not collect any trees. Instead, it directly imposes a 12% income tax, thereby collecting six apples from the taxpayer once the trees have borne fruit. Now let us assume that the government, not the taxpayer, chooses to plant one apple and hence convert that apple into a tree. Just as before, the government thus ends the period with one tree and five apples, with the taxpayer having ten trees and forty-four apples. Under both the wealth tax and the income tax the government and the taxpayer are equally well off – the two taxes are broadly equivalent.

Kaplow pinpoints the exact formula required to find the ex-ante wealth tax rate that would be equivalent to the capital income tax rate.[52] The keystone of the equivalence between a wealth tax and a capital income tax is the risk-free rate, or the rate of apple production in the above example.[53] In other words, if we want to set a wealth tax to be equivalent to some income tax rate, then the applicable wealth tax rate would be a function of both that income tax rate and the prevailing short-term risk-free rate. This means that there are two ways of setting a wealth tax. The first is the common way of doing it, having been used in Europe and proposed in Congress, which

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[51] *Id.* Here, we can ignore wages for simplicity.

[52] The most general formula can be written as $\tau_W = \frac{\tau_{inc} r(t,t+1)}{1+r(t,t+1)}$, where τ_W is the wealth tax rate, τ_{inc} the accrual capital income tax rate, and $r(t, t + 1)$ is the risk-free rate between period t and $t + 1$ (effectively the one-year interest rate if a year is taken as the relevant period).

[53] The three relevant variables are the wealth tax rate, the accrual capital income tax rate, and the risk-free rate.

sets some fixed tax rate. For example, a wealth tax could be an annual tax which levies a fixed 2% rate on taxpayers' net wealth. A fixed rate wealth tax is equivalent to a floating rate capital income tax by virtue of the formula, with the floating nature of the equivalent rate coming from the fluctuation of the short-term risk-free rate. The second is a floating (or variable) tax rate on wealth, which is equivalent to a fixed rate income tax. The two, taken together, show that the fixed rate of one tax equals the floating rate of another. Conversely, a fixed-rate wealth tax is not equivalent to a fixed-rate accrual-based capital income tax unless the riskless rate is constant across time.[54] A floating wealth tax rate requires annual adjustment of the applicable wealth tax rate depending on the prevailing risk-free rate.[55] An example of a floating wealth tax rate schedule for fictionalized years is presented in Table 1.

Table 1:
Wealth Tax Rate Equivalent to Fixed Income Tax Rate

Year	Risk-free Rate (1y)	Inc. Tax Rate	Equiv. Wealth Tax Rate
1	6%	50%	2.83%
2	5%	50%	2.38%
3	10%	50%	4.55%
4	5%	50%	2.38%
5	9%	50%	4.13%
6	3%	50%	1.46%

While the Haig-Simons discussion of income and wealth is helpful in determining whether there was a relationship between income and wealth, Kaplow's 1994 article identifies that the growth rate is the key mechanism through which the two are related. A critical assumption is that the government can, and does, readjusts its own behaviour relative to the tax. For example, in the above apple orchard discussion, if the government does not choose to plant one of the apples that it collects under the income tax then the two taxes would not be broadly equivalent. A direct implication of this is that all taxes on capital are merely taxes on riskless returns, which is Kaplow's main result.[56]

II.B. Multiple Period Equivalences in Tax Receipts and After-Tax Returns

The single period broad equivalence between a wealth tax and a capital income tax holds for multiple periods as well.[57] To see this, let us re-examine the apple orchard problem from where

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[54] The reason for this being that fixing both the wealth tax and the capital income tax rate means that the rates are no longer a function of the risk-free rate: s*ee* the discussion in *Morgan Cash Flows*, *supra* note 5.

[55] It should probably use one-year since that is what the system assumes. But, arguably, it could be other rates too: *see generally Morgan Cash Flows*, *supra* note 5.

[56] Kaplow, *supra* note 49, at 792-793.

[57] For a different discussion of this point *see Morgan Cash Flows*, *supra* note 5.

we left off. Recall that the taxpayer ended the period with ten trees and forty-four apples, while the government had one tree and five apples. Now, let us look at the following year. For simplicity we can take the case where the government consumes its holdings, and the taxpayer consumes its apples, such that the government has zero apples, zero trees, while the taxpayer has only ten trees left. Notice this is exactly what we started with. If the rate of apple production stays the same, and we re-impose either of the two single-period taxes, then we have the exact same situation as above where the two taxes were found to be broadly equivalent. A multiple period wealth tax is therefore broadly equivalent to a multiple period capital income tax. In other words, an annual wealth tax is broadly equivalent to a capital income tax levied annually.

Accordingly, an ex-ante wealth tax is generally equivalent to an ex-post wealth tax. The only case where this will not be true is at the end points: namely, the first and last year that a wealth tax is collected. The reason is simple. Suppose that we look at two consecutive years, 2022 and 2023, and that Congress had adopted a wealth tax that measures and taxes wealth on January 1st. Under an ex-post wealth tax the taxpayer's wealth would be measured and taxed on January 1st of 2023 and 2024, with 2024 falling just outside of our analysis. Under an ex-ante wealth tax, wealth would be measured and taxed on January 1st of 2022 and 2023. We can see that the end points are different, so much so that the ex-ante wealth tax is triggered twice while the ex-post tax is only levied once. However, regardless of the system, the taxpayer is taxed on her wealth on January 1st of 2023. Under a perennial wealth tax there would be hence no difference between an ex-ante wealth tax and an ex-post wealth tax. Since an ex-ante wealth tax is broadly equivalent to a capital income tax, an ex-post wealth tax is broadly equivalent to a capital income tax as well.

II.C. The Impact of Wealth Taxation on Risk Taking

It has been said that wealth taxation causes taxpayers to engage in riskier investment behaviour.[58] The argument goes as follows, and ignores valuation-related concerns. Since a wealth tax imposes a burden on invested capital and not just on gains or losses, taxpayers are incentivized to risk more of what they have. The general argument is mostly predicated on a wealth tax being a more onerous burden on capital than just an income tax since it taxes the underlying capital investment as well as the return to investment which, as just seen, is incorrect. A taxpayer and the revenue authority can be in the exact same after-tax position with respect to their finances under either a capital income tax or a wealth tax if they are calibrated properly. However, despite the intuition being wrong, there is a difference in aggregate risk-taking under a wealth tax compared to an otherwise equivalent capital income tax. Rather than encourage risk-taking, a wealth tax would instead result in less aggregate risk-taking compared to the capital income tax.[59] However, in terms of private after-tax risk-taking there is no effect under a symmetrical tax, which applies to both capital income and wealth taxation.

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[58] *See e.g.* OECD, OECD TAX POLICY STUDIES THE ROLE AND DESIGN OF NET WEALTH TAXES IN THE OECD 65-66 (2018); Åsa Hansson, *Is the wealth tax harmful to economic growth?*, 2 WORLD TAX JOURNAL : WTJ 19-34, 22-23 (2010) (for a more neutral discussion); Joseph E. Stiglitz, *The Effects of Income, Wealth, and Capital Gains Taxation on Risk-Taking*, 83 THE QUARTERLY JOURNAL OF ECONOMICS 263 (1969) (finding that a wealth tax can, but does not necessarily, result in lower risk-taking).

[59] More narrow result presented in Sitglitz, *supra* note 58.

The starting point for any discussion of taxation and risk-taking is the so-called Domar-Musgrave model developed by Evsey Domar and Richard Musgrave in their famous 1944 article.[60] Domar-Musgrave compares an investor in two worlds: one where there is no tax, and one where there is a capital income tax. When choosing their investments, a taxpayer seeks to maximize expected return while minimizing risk. In a pre-tax world the taxpayer bears the full consequences with respect to both return and risk. Taking a coin flip as an example, suppose that the taxpayer pays 20$ to place a bet on a coin flip which earns 60$ on heads and nothing on tails. Thus the taxpayer either wins $40 or loses $20, both with a 50% chance (assuming the coin is fair). If we introduce a 20% capital income tax with symmetric treatment of losses, the taxpayer now has a 50% chance of having a $32 gain or a $16 capital loss. The core lesson of Domar-Musgrave is that the taxpayer can simply gross-up their risky holdings and in doing so return to their original pre-tax payoff. Suppose the taxpayer in the coinflip example ups the ante, betting $25 for a $75 payoff if the coin lands on heads. On a post-tax basis the taxpayer now has a 50% chance of having either a $40 gain[61] or a $20 loss,[62] thereby eliminating the effects of the tax – their expected return, and the riskiness of their investment, is the same as it would be without taxes.

The Domar-Musgrave gross-up works because the government shares a taxpayer's gains and losses under a symmetric capital income tax. A dollar of gain is taxed, while a dollar of loss is deducted. Accordingly, the taxpayer can eliminate the effect of the tax on their investment's risks and returns provided a riskier investment is available (which is not always the case). The consequence is that individual taxpayers invest in riskier assets, resulting in increased aggregate risk-taking compared to the no-tax baseline. The amount of the gross-up under the Domar-Musgrave model is exactly one divided by one less the applicable tax rate, such that a higher tax rate results in the taxpayer demanding a riskier asset since the government's share of the risk is greater.[63]

Perhaps unsurprisingly given the close relationship between capital income taxes and wealth taxes, Domar-Musgrave applies just as readily to wealth taxation.[64] The key to this finding is that, like a capital income tax, a wealth tax is symmetrical as well. An asset increasing in value by a dollar increases a taxpayer's wealth tax burden by that dollar multiplied by the applicable rate, while an asset falling in value by a dollar will decrease the burden by that dollar multiplied by the tax rate. To see this more intuitively, we can break down a wealth tax into a recurring levy on the underlying capital coupled with a capital income tax. The Domar-Musgrave gross-up is smaller precisely because the wealth tax is levied on the principal as well as the investment's return. Conversely, an income tax applies purely to that return. For the tax burden to be otherwise equivalent the income tax rate must be higher than the wealth tax rate, reducing both the expected return and the risk of a given asset or portfolio. Since the reduction in return and risk is greater

[60] Evsey D. Domar & Richard A. Musgrave, *Proportional Income Taxation and Risk-Taking*, 58 THE QUARTERLY JOURNAL OF ECONOMICS 388 (1944). *See also* Stiglitz, *supra* note 58.

[61] $(75 - 25)(1 - 0.2) = \$40$, which is the payoff less the cost of playing the game multiplied by the after-tax rate.

[62] $\$25(1 - 0.2) = \$20$, which is the cost of playing the game multiplied by the after-tax rate.

[63] If we denote the tax rate as τ and return as r, the taxpayer's after-tax return equals $(1 - \tau)r$. If the taxpayer grosses up by finding an asset with a return of $r/(1 - \tau)$, then the after-tax return equals $(1 - \tau)r/(1 - \tau)$ which simplifies to r.

[64] These are the findings of *Morgan Cash Flows*, *supra* note 5; Sitglitz, *supra* note 58.

under the income tax because the rate is higher, then it is not surprising that the gross-up is greater and hence investors subject to an income tax require riskier assets compared to those subject to a wealth tax.

At this point we run into a problem. Traditional Domar-Musgrave analysis deals with the rate of return rather than the post-tax payoff, which is a slight but important nuance. Again invoking our apple orchard example, a 10 apple tree investment with a 500% rate of return would give an ultimate payoff of 50 apples. Under classical analysis we begin by simply examining the magnitude of the Domar-Musgrave gross-up, which we can do by looking at returns (and leaving aside the original capital investment, for now). Recall that we have broken down a wealth tax into a recurring capital levy plus a capital income tax; further recall that the wealth tax rate is 10% and the equivalent capital income tax rate is 12%. If we only care about the rates of return – the production of apples – then after calculating and applying the gross-up, she would require a rate of return of 555.5% under the wealth tax, and 568.2% under the income tax.[65] Both returns become 500% after-tax, such that the returns are the same. Confirming our intuition, she needs to increase her return by less under the wealth tax than she does under the income tax. Since the gross-up under the wealth tax is smaller, so too is the riskiness of the asset demanded under the wealth tax compared to the income tax.

Focussing on expected returns ignores the impact of the wealth tax on capital (wealth). The benefit of a simple albeit slightly comical example like fruit-bearing trees is that we can clearly see that the gross up under the wealth tax does not put the taxpayer in the same after-tax position as they would be without taxes. One tree has been levied by the government, such that the taxpayer only has nine apple trees left. Accordingly, while the taxpayer has reached the same after-tax rate of return (500%), they are not in the same pre-tax position. The taxpayer would have to further increase the return to compensate for the levied wealth. The gross-up to bring the taxpayer back to their pre-tax financial performance would therefore have to be greater than that given under the return-based analysis – we can call this expanded concept the modified Domar-Musgrave gross-up.

The modified Domar-Musgrave gross-up under a wealth tax is still lower than the gross-up under an otherwise equivalent income tax. This will be true for all non-negative rates of return, and a mathematical proof is provided elsewhere.[66] The reasoning behind this finding is the same as under the rate-of-return analysis. Under a wealth tax the government takes a much smaller slice of the return precisely because it levies a tax on the underlying capital investment. To end the period with the same amount of funds on a pre-tax basis the taxpayer must accordingly compensate not only for the wealth tax's impact on the return but on the principal a well. The modified gross-up will be less for the same reason that the gross-up is less, namely, because the government shares

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[65] To see where the numbers come from, we can start with the wealth tax. After the imposition of the ex-ante wealth tax we have 9 trees which produce 5.56 apples each, for a total of 50 apples. Under the income tax, 10 trees producing 5.682 apples each produces 56.82 apples; less 12% of that 56.82, we have exactly 50 apples. Note that the two situations are not equivalent beyond the return (50 apples in each case), because under the ex-ante wealth tax the taxpayer has nine trees, whereas under the capital income tax the taxpayer has ten. This is the problem discussed in the following paragraphs.

[66] *Morgan Cash Flows*, *supra* note 5, at Appendix.

in a smaller amount of the risk and return. Going back to our apples, a modified gross-up would result in a rate of return of 566.6%, which is still lower than the 568.2% return needed under the income tax. As a quick proof, suppose we look at an ex-post wealth tax. A 566.6% return on 10 apple trees would yield 56.6 apples. A 10% wealth tax would levy: one tree from ten trees; 5.5 apples from 55.5 apples; and 0.1 apples from the remaining 1.1 apples. In total the taxpayer would then have 9 trees and 51 apples, such that replanting one apple would again yield 10 trees and 50 apples. The taxpayer has thus completely undone the effects of the wealth tax.

There are two consequences of this analysis. First, taxpayers can completely undo the private effects of wealth taxes by grossing-up their investments; in other words, seeking riskier returns. This is equally true under a capital income tax, which is the original conclusion of Domar and Musgrave. The second consequence is that aggregate risk-taking is lower under the wealth tax because the applicable gross-up, whether the return gross-up under Domar-Musgrave or the modified gross-up, is lower. Joseph Stiglitz found a similar but narrower result in 1969.[67] Indeed, a direct extension of Domar-Musgrave is that aggregate demand for risky assets rises with the tax rate, which causes the applicable gross-up to rise. To see this, note that the increase in return comes at the cost of increased risk. The greater the gross-up then the greater the risk. Since gross-ups are strictly less under a wealth tax as compared to an otherwise equivalent capital income tax,[68] this makes aggregate risk-taking lower under a wealth tax.

II.D. Comparing Progressivity under Wealth and Capital Income Taxation

Nothing prevents a wealth tax from being imposed at graduated rates. In fact, almost all wealth tax proposals do include graduated rates. The Ultra-Millionaire Tax Act, for example, would impose a 2% levy on wealth in excess of fifty million USD, with an additional 1% levy on all wealth in excess of one billion (for a total of 3%).[69] Note though that this is a fixed-rate wealth tax, which means that the equivalent capital income tax would be variable since it would be a function of the fixed rate and the short-term risk-free return. Regardless, the possibility of using a graduated tax schedule is an almost mechanical result of having shown that capital income and wealth taxes are equivalent except for their impact on risk-taking.

We can again use our apple orchard example to show this. Everything is as before except the government now imposes a graduated wealth tax: it collects 20% of a taxpayer's trees up until the fifth tree (inclusive), and then 40% on any excess. Since the taxpayer has ten trees, the government levies three (20% of five being one, and 40% of the remaining five being two). This results in an after-tax payoff of thirty-five apples, of which three can be replanted to leave the taxpayer with ten trees and thirty-two apples. Under the income tax, suppose the revenue authority imposes a 24% tax on the first apple up to the twenty-fifth, with a 48% tax thereafter. The taxpayer ends the period with thirty-two apples and 10 trees, as was the case under the progressive wealth tax.

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[67] Sitglitz, *supra* note 58.
[68] This will always be true for non-negative rates of return.
[69] Ultra-Millionaire Tax Act, *supra* note 6.

For the progressive wealth tax to be broadly equivalent to the progressive capital income tax capital income must be taxed on a separate schedule from wages. Thus, the equivalence of graduated schedules only holds for a capital income tax that is separate from a wage tax, which is not presently the case under the Internal Revenue Code. Under current law the tax rate applicable to interest income and capital gains is determined relative to aggregate income, which includes wages. Indeed, the rate on interest and short-term capital gains is exactly the applicable rate on wages, though the short-term capital rate is half of that rate.[70] For example, in 2021 all income above $523,600 is taxed at a 37% rate.[71] If a taxpayer has exactly $523,600 of wage income, then the next dollar of short-term capital gains will be taxed at 37%. Conversely, should a taxpayer have no wage income and only that dollar of short-term capital gain, it will instead be taxed at the 10% rate applicable on all income below $9,951. Recall from the Haig-Simons derived definition of wealth that a wealth tax is only directly comparable to a capital income tax and not a general income tax, so this result is unsurprising. Since wages can push the burden higher or lower, there is no parity between a wealth tax and a general income tax.

Progressivity is thus best achieved through something like the Nordic dual income tax model, which is discussed at length by James Banks and Peter Diamond in their contribution to the Mirrlees Review on taxation.[72] The Nordic model effectively has three types of income: wages and income from businesses, corporate income, and everything else. This last category includes such things as rent, interest, and capital gains.[73] Leaving aside corporate income, the separate taxation of wages and capital income is exactly the type of system to which a progressive wealth tax would be otherwise equivalent. The Nordic model creates two separate individual tax schedules, one for capital income, and another for wages and business income. Under such a system the tax can be applied according to a flat rate (as is the case in the Nordic countries) or under graduated rates.[74] While the merits of a Nordic-style dual income tax versus a more

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[70] The general regime regarding the taxation of capital gains and losses may be found in Subchapter P of the I.R.C. Interest is deductible under I.R.C. § 163 while it is includible in general income under I.R.C. § 61 (2017). If a capital asset held for less than the one year period is sold, it generates short term gains or losses which are includible or deductible at the taxpayer's ordinary rate: I.R.C. § 1222 (2017).

[71] *See* Rev Proc. 2021-45, online at https://www.irs.gov/newsroom/irs-provides-tax-inflation-adjustments-for-tax-year-2022.

[72] The "Nordic dual income tax" is treated here as something distinct from the "Nordic model" of capital taxation. The first creates two separate schedules for wage and capital income which can then be taxed and analyzed in isolation from each other. The second is the first plus a flat tax on any capital income. James Banks & Peter Diamond, *The Base for Direct Taxation*, *in* DIMENSIONS OF TAX DESIGN: THE MIRRLEES REVIEW 548 (Stuart Adam ed., 2010), at 550-553. *See also* Jukka Pirttilä & Håkan Selin, *Income Shifting within a Dual Income Tax System: Evidence from the Finnish Tax Reform of 1993*, 113 THE SCANDINAVIAN JOURNAL OF ECONOMICS 120 (2011); Peter Birch Sorensen, *Dual Income Taxation: Why and How?*, 61 FINANZARCHIV 559 (2005).

[73] Inkomstskattelag (Svensk författnings-samling 1999:1229) (Swed.).

[74] Banks & Diamond, *supra* note 72, at 581, specifically consider the Nordic model to have two core features: a separate schedule for capital income compared to wages, and a flat rate on such capital income. They remark

> Part of the case for the Nordic model is the political argument that base widening is more readily accepted along with lowering the tax rate on capital income—an important point given the efficiency costs of differential taxation of different sources of capital income.

The important part of the Nordic model for present purposes is the separate schedule rather than the flat rate, which would not be progressive. Whether capital should be taxed at all is a separate debate. The traditional review is that capital should not be taxed: *see e.g.* Anthony B. Atkinson & Joseph. E. Stiglitz, *The Design of Tax Structure: Direct Versus Indirect Taxation*, 6 JOURNAL OF PUBLIC ECONOMICS 55 (1976); Christophe Chamley, *Optimal Taxation of*

traditional U.S. general income tax are worth further study, we can leave that to future research and limit ourselves to a few comments relevant to wealth taxation. In the context of income versus consumption taxation, Al Warren has previously argued that wealth carries with it numerous personal benefits, like reputation, which merits being taxed in and of itself.[75] The imposition of a separate levy on capital may further appeal to tautological notions of fairness and merit, allowing for more tailored taxation of generational wealth stored in accumulated capital, or even more generous subsidization of capital for things like retirement. The merits or drawbacks of a Nordic dual income tax aside, a progressive wealth tax is only equivalent to a progressive capital income tax (besides issues of risk-taking) from which wages and business income is disaggregated.

II.E. Equivalence and the Constitutionality of a Wealth Tax

Much has been written about the constitutionality of wealth taxes. The main issue comes from the Direct Tax Clause of the First Article of the Constitution, also known as the Apportionment Clause, which requires that "direct taxes shall be apportioned among the several States which may be included within this Union, according to their respective Numbers."[76] This infamous provision was used to strike down the United States' first attempt at a comprehensive income tax in *Pollock v. Farmers' Loan & Trust Co*.[77] In a 5-4 split a majority of the Supreme Court held that certain portions of the 1894 omnibus Tax Act, specifically the tax on income derived from real estate and personal property, were direct taxes and hence must be apportioned.[78] Since the income tax could not be apportioned, it was struck down. Congress would respond by later enacting the Sixteenth Amendment in 1913, which explicitly allowed the creation of a federal income tax without the need for apportionment across the States.[79] Central to the question of whether a wealth tax is constitutional is the interpretation and deference that should be accorded to *Pollock*. This question, and others, has seen extensive debate in tax scholarship. Most authors see no possible world in which a wealth tax could ever fall afoul of Apportionment Clause,[80] while others are equally convinced that a wealth tax is without a doubt unconstitutional.[81] Some, like

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Capital Income in General Equilibrium with Infinite Lives, 54 ECONOMETRICA 607 (1986); Kenneth L. Judd, *Redistributive Taxation in A Simple Perfect Foresight Model*, 28 JOURNAL OF PUBLIC ECONOMICS 59 (1985). *But see* Emmanuel Saez & Stefanie Stantcheva, *A Simpler Theory of Optimal Capital Taxation*, 162 JOURNAL OF PUBLIC ECONOMICS 120 (2018); Banks & Diamond, *supra* note 72.

[75] Warren, *supra* note 12 at 1169; Warren, *supra* note 21, at 1122.

[76] U.S. CONST. art. I, § 2, cl. 3.

[77] *Pollock v. Farmers' Loan & Trust Co*., 157 U.S. 429 (1895).

[78] *Id*. at 573-583.

[79] U.S. CONST. amend. I, XVI. For a discussion, *see* Morgan, *supra* note 11; LAWRENCE ZELENAK, FIGURING OUT THE TAX: CONGRESS, TREASURY, AND THE DESIGN OF THE EARLY MODERN INCOME TAX (2018).

[80] *See e.g.* Dawn Johnsen & Walter Dellinger, *The Constitutionality of a National Wealth Tax*, 93 IND. L.J. 111, 111–14 (2018); Bruce Ackerman, Taxation and the Constitution, 99 COLUM. L. REV. 1, 56 (1999); Calvin H. Johnson, Purging Out Pollock: The Constitutionality of Federal Wealth or Sales Taxes, 97 TAX NOTES 1723, 1728–29, 1734 (2002).

[81] Erik Jensen has been the strongest critic of the constitutionality of a wealth tax. Erik M. Jensen, Interpreting the Sixteenth Amendment (By Way of the Direct-Tax Clauses), 21 Const. Comment. 355, 367 (2004); Erik M. Jensen, Taxation and the Constitution: How to Read the Direct Tax Clauses, 15 J.L. & POL. 687 (1999).

Daniel Hemel, take the more nuanced position that a wealth tax is theoretically permissible under the Constitution, but would be struck down by the Roberts court.[82]

To date, the discussion of the constitutionality of a wealth tax has focussed on a fixed-rate wealth tax. This makes sense; fixed-rate wealth taxes are what is being proposed. As seen above, a fixed-rate wealth tax is not equivalent to a fixed-rate capital income tax. Instead, a fixed-rate wealth tax is equivalent to a floating-rate capital income tax. The difference between the two can be striking: empirical analysis shows that a 3% wealth tax, the top marginal rate proposed by the Ultra Millionaire Tax Act, would have been equivalent to a 724.21% income tax on average between 2000 and 2021.[83] In 2021 alone, the wealth tax would have been equivalent in monetary terms to a capital income tax rate of 1748.78%. This means that Congress would have extracted seventeen dollars in taxes for every one dollar that a taxpayer would have earned.

Regardless of whether a 1750% annual tax rate would fall afoul of apportionment there is a very real question of whether this involves eminent domain under the Takings Clause under the Fifth Amendment.[84] The fundamental question is whether a tax can ever be a taking that would require compensation, and the short answer is that we do not know.[85] To date, there has been no authoritative judicial pronouncement on the matter, and relatively little academic discussion.[86] But rates that high certainly beg the question, and make the constitutional foundation of a fixed-rate wealth tax (whether 3% or otherwise) look a bit more questionable.

Although the scholarship on whether a wealth tax is constitutional is interesting and no doubt important, cases concerning annual taxes on horse-drawn carriages from centuries ago will probably not be dispositive.[87] Taking a step back, our prior analysis shows that there are two different types of wealth taxes. The first is the fixed-rate tax, which has been the subject of aforementioned constitutional queries. The second is a floating rate wealth tax. Recall that the floating rate wealth tax is equivalent to a fixed-rate capital income tax, which is valid under the Sixteenth Amendment. For better or worse, the Sixteenth Amendment explicitly greenlights income taxes and only income taxes. Beyond that we have some level of uncertainty.

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[82] Daniel Hemel, *A wealth tax is a good idea — if we had a different Supreme Court*, Washington Post, Oct. 26, 2021, at https://www.washingtonpost.com/outlook/2021/10/26/wealth-tax-constitution-supreme-court/.

[83] *Morgan Cash Flows*, *supra* note 5.

[84] U.S. CONST. amend. V, § 2, cl. 4.

[85] Famously, Richard Epstein has made the fairly extreme argument that much of current tax law is unlawful under the Takings clause. RICHARD A. EPSTEIN, TAKINGS: PRIVATE PROPERTY AND THE POWER OF EMINENT DOMAIN 297-300 (1985). *But see* E. Kades, *Drawing the Line Between Taxes and Takings: the Continuous Burdens Principle, and its Broader Application*, 97 NORTHWESTERN UNIVERSITY LAW REVIEW 189 (2002) (arguing that a tax will be a taking if there is a large jump in its application from one taxpayer to the next marginal taxpayer); Eduardo. M. Penalver, *Regulatory Taxings*, 104 COLUMBIA LAW REVIEW 2182 (2004) (concluding that regulations that could take the form of permissible taxes should not be deemed to be a taking under the Takings clause).

[86] *Id*. *See also* Amnon Lehavi, *The Taking/Taxing Taxonomy*, 88 TEXAS LAW REVIEW 1235 (2010) (surveying the differences between a taking and a tax within the framework of property law).

[87] Most of the discussion in *Pollock*, *supra* note 77, at 568-574, regarding what constituted direct taxation hinged on the discussion of carriage taxes in Hylton v. United States, 3 U.S. 171 (1796) (where the Supreme Court found that an annual tax on carriages were not direct taxes and hence did not require apportionment). *See also* Johnson & Dellinger, *supra* note 80, at 114-115.

If a wealth tax is set to be broadly equivalent to a fixed-rate capital income tax that we know and apply then the wealth tax becomes an income tax in all but name, and there is no difference between the two in terms of tax receipts and tax burdens.[88] Since the Supreme Court has repeatedly written that accrual-based income taxes would be constitutional, hence the validity of an income tax does not depend on realization, we can at least conclude that a floating-rate wealth tax of uncertain constitutionality would be otherwise equivalent to a constitutional capital income tax.[89] The next line of inquiry is determining whether a wealth tax being otherwise equivalent to a constitutionally-valid capital income tax is sufficient, in and of itself, to ground constitutionality. There is strong support for this idea in the Supreme Court's own recent jurisprudence.

In 2012 the Supreme Court considered a similar issue in *PPL Corp. et al. v Commissioner of Internal Revenue*.[90] In *PPL Corp* a company had tried to deduct, for U.S. federal income tax purposes, a 23% windfall tax that had been imposed by the UK's Labour Party in 1997.[91] The tax applied to companies that had been privatized in the 1980s and 1990s and had been sold at below market value. The levy was designed to recover some of the excess that was captured by private purchasers by first valuing the firm, then subtracting the market price, and finally applying a specific tax rate. It was not explicitly a wealth tax, but operated very similarly to one. In a rather unusual occurrence the Court reprinted the formula used to establish this windfall tax, and as such, it shall be reproduced here:

$$Tax = 23\% \left[\left(365 * \frac{P}{D} * 9 \right) - MarketCap \right],$$

where P/D is the relevant profit over number of days of the initial period, and, more importantly, $MarketCap$ is the firm's market capitalization.[92] The tax attempted to hit the difference between the firms' market capitalization during the period (which had been fixed pursuant to the privatization regime) and what the market capitalization should have been, calculated using the firms' profits over the holding period. Note that the number nine is just an arbitrary multiplier. In essence, the Labour Party aimed to tax the difference in the true financial value of the firm and its artificially depressed market value.

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[88] The Majority in *Pollock*, *supra* note 77, at 580, which is probably the judgment most problematic for a wealth tax's constitutionality specifically noted that "[t]he name of the tax is unimportant."

[89] *Cottage Savings Ass'n v. Commissioner*, 499 U.S. 554, 557 (1991). Justice Marshall was citing Justice Stone in Helvering v. Horst, 311 U.S. 112, 116 (1940), who stated:

> But the rule that income is not taxable until realized has never been taken to mean that the taxpayer, even on the cash receipts basis, who has fully enjoyed the benefit of the economic gain represented by his right to receive income can escape taxation because he has not himself received payment of it from his obligor. The rule, founded on administrative convenience, is only one of postponement of the tax to the final event of enjoyment of the income, usually the receipt of it by the taxpayer, and not one of exemption from taxation where the enjoyment is consummated by some event other than the taxpayer's personal receipt of money or property.

[90] *PPL Corp. v. Comm'r of Internal Revenue*, 569 U.S. 329 (2013). This judgment has surprisingly not been discussed in the literature on wealth tax constitutionality despite its potential.

[91] *Id*. at 1-2.

[92] *MarketCap* replaces FV to be more intuitive. The formula can be found *Id*. at 2.

PPL Corp was a U.S. company that owned a 25% stake in a firm which had been privatized and subject to this windfall tax. It had claimed the U.K. tax as a deduction for U.S. tax purposes, which was denied by Commissioner of Internal Revenue. At issue was whether the windfall tax was sufficiently similar to an income tax in order for it to be deductible. The query was not done for constitutional purposes, but rather the source of the quandary came from § 901(b)(1) of the Internal Revenue Code which states that any "income, war profits, and excess profits taxes" paid to foreign governments are creditable against U. S. income taxes.[93] The applicable standard under Treasury Regulation §1.901–2(a)(1) is whether or not the predominant character of a foreign tax "is that of an income tax in the U.S. sense;" only then could it be creditable domestically.[94] PPL's claim that the credit was properly considered to be like an income tax was accepted by the Tax Court, but lost on appeal in the Third Circuit.

In an opinion written by Justice Thomas, the Court found that the predominant character of the windfall tax was that of an income tax and hence it was creditable for U.S. purposes.[95] Justice Thomas began by noting that the way foreign governments characterize a tax is not dispositive to the inquiry. Referring back to Treasury Regulation §1.901–2(a)(3), he identified that "the tests indicate that net gain (also referred to as net income) consists of realized gross receipts reduced by significant costs and expenses attributable to such gross receipts."[96] The Justice then considered the Third Circuit's reasoning, which had found that the tax must be solely considered as a tax between the flotation (market) value and the fundamental value, as imputed by the formula outlined above.[97] He rejected this argument. Although Thomas agreed that the levy appeared to tax the difference between two values, this was done as a proxy for a tax on realized net income.[98] After algebraic manipulation of the formula, he found that the tax was effectively a conversion of that flotation value into the income that a company should have earned given certain assumptions.

Thomas' reasoning hinged on rearranging the formula. Once this was done, he continued by specifying that

"The rearranged tax formula demonstrates that the windfall tax is economically equivalent to the difference between the profits each company actually earned and the amount the Labour government believed it should have earned given its flotation value. […] That is a classic excess profits tax."[99]

The Commissioner tried to argue that algebraic rearrangements were improper and that courts should accept the nominal character of the tax that the foreign entity purported to adopt.[100] Accordingly, the Commissioner found that the windfall tax was a tax on value or a one-time levy

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[93] *Id*. at 4; l.R.C. § 901(b)(1).
[94] Treas. Reg. § 1.901-2(a)(1).
[95] Justice Sotomayor wrote a concurring opinion with largely the same reasoning.
[96] *PPL Corp*, *supra* note 90, at 6; Treas. Reg. § 1.901-2(a)(3) (2017).
[97] *PPL Corp*, *supra* note 90, at 7.
[98] *Id*. at 8-10.
[99] *Id.* at 10.
[100] *Id.* at 11.

on wealth.[101] Justice Thomas authoritatively rejected this argument, stating that it was too formalistic, and too rigid, for tax law. Referring to *Commissioner v. Southwest Exploration Co*, Thomas specified that the Court must look at substance over form since "tax law deals in economic realities, not legal abstractions."[102] Having found that the tax is based on net income, the name or characterization used by the United Kingdom did not matter. Since the math "illustrate[d] the economic substance of the tax and its interrelationship with net income," the Court found in favour of PPL and the amount was creditable under U.S. tax law.

PPL Corp indicates a potential divergence in constitutional analysis for fixed-rate and floating-rate wealth taxes. Ultimately, for the reasons discussed above, we do not know whether a fixed-rate wealth tax would be constitutional. The legal realists and Hemel are right – it would probably be a function of the composition of the Supreme Court. A fixed-rate wealth tax is equivalent to something quite distinct from how we envision an income tax, with it being otherwise equivalent to a floating rate income tax. Under rates which seem relatively small, like a 3% tax rate on wealth, the otherwise equivalent capital income tax rate can be staggering. A floating-rate wealth tax is different, and this is where *PPL Corp* provides answers since the floating-rate wealth tax avoids is broadly equivalent to a fixed-rate income tax. Much like Justice Thomas wrote in *PPL Corp* about the U.K. windfall tax, the economic substance of a floating-rate wealth tax is to be otherwise equivalent to an income tax. As such, its constitutionality appears far more certain than its fixed-rate counterpart.

III. Wealth Versus Income, or Accrual Versus Realization?

III.A. Comparing Apples to Apples

Emmanuel Saez and Gabriel Zucman propose a wealth tax as a response to the perceived failures of the Internal Revenue Code's taxation of capital.[103] Citing their prior works,[104] they note that income and wealth inequality has increased dramatically in the United States over the last few decades and argue that

> A wealth tax is a potentially more powerful tool than income, estate, or corporate taxes to
> address the issue of wealth concentration as it goes after the stock rather than the flow. […]

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[101] *Id*. ("the Commissioner argues that any algebraic rearrangement is improper, asserting that U. S. courts must take the foreign tax rate as written and accept whatever tax base the foreign tax purports to adopt.")

[102] *Id*. Commissioner v. Southwest Exploration Co., 350 U.S. 308, 312 (1956).

[103] *See* Saez & Zucman, *supra* note 1, at 438-439.

[104] *Id*. at 447-457 (estimating an extensive growth in inequality within the United States, with the top 0.1 percent wealth share increasing from 7.5% in the late 1970s to over 20% in recent years). *See e.g.*Thomas Piketty & Emmanuel Saez, *Income Inequality in the United States, 1913–1998*, 118 THE QUARTERLY JOURNAL OF ECONOMICS 1 (2003); Emmanuel Saez & Gabriel Zucman, *Wealth Inequality in the United States since 1913: Evidence from Capitalized Income Tax Data*, 131 Q J ECON 519 (2016). *But see* Matthew Smith, Owen Zidar, & Eric Zwick, Top Wealth in America: New Estimates and Implications for Taxing the Rich (Princeton Econ. Working Paper, Oct. 7 2021), https://scholar.princeton.edu/sites/default/files/wealth_main_resubmitted.pdf (finding a much smaller, but still significant, increase in the share of wealth held by the wealthiest Americans: between 1989 to 2016 the top 0.1% saw their share of household wealth increase by 5.1% up to 15.0%, which is a much smaller rise than that found by Piketty, Saez, and Zucman).

It would increase the tax rate of wealthy families who can currently escape progressive income taxation by realizing little income relative to their true economic income.[105]

Leaving aside the efficacy of a wealth tax, the key flaw with the current capital income tax for Saez and Zucman, and all reasonable students of tax policy, is that the realization requirement allows taxpayers to defer triggering taxes on capital gains until a moment of their choosing up to and including death.[106] Their main criticism is not necessarily that present rates are too low, but that realization aids and abets taxpayers escaping the capital gains tax.

Embedded in their pitch is a comparison of an annual wealth tax to a realization-based capital income tax, which is like a comparison between apples and tuna. To be sure, both are taxes, and both involve the transfer of resources away from private consumption towards public spending. But a realization-based tax is qualitatively different from an accrual tax, whether talking about income taxes or wealth taxes. While accrual is seen as the conceptually correct way of levying a capital income tax,[107] realization results from the twin lenses of pragmatism and necessity (much like the preferential tax treatment of capital gains).[108] The Supreme Court is itself a proponent of this view, with Justice Marshall in Cottage Savings writing that the "concept of realization is founded on administrative convenience."[109] Almost exclusively, discussions of optimal income taxation deal with accrual-based income taxes and not realization.[110] Wealth taxes are similar, in that all discussions to date discuss annual, accrual-style wealth taxation rather than one which his realization-based.

The problem with Saez and Zucman's framing of the discussion as one of wealth versus income taxation is that it hides the accrual-realization debate that is really the normative question behind their point. To be clear, the problem is not the discussion of benefits and drawbacks of accrual versus realization-based taxation, which is a critical building block of tax theory and tax systems. David Shakow, for example, has engaged deeply with the question in advocating for accrual-based taxes.[111] Much like how aerodynamics is the study of air flows across surfaces and mechanical engineering is the application of aerodynamics to real world aircraft, realization is less a product of the study of taxation itself and more a product of the study of tax administration. The underlying spirit of pragmatism of taxation – of substance over form – has resulted in various policies that in theory seem downright nonsensical. Why, for example, should interest be taxed differently from capital gains; why should capital gains be taxed at preferential rates; and why

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[105] Saez & Zucman, *supra* note 1, at 1-3.

[106] Where, thanks to the stepped-up basis at death and a leaky estate tax, accumulated capital gains will go untaxed but assets' basis in the hands of the inheritors will reflect current market values.

[107] *See* LOUIS KAPLOW, THE THEORY OF TAXATION AND PUBLIC ECONOMICS 233-234 (2008) ("As a final, practical observation, it should be noted that existing income tax systems tend to be closer to pure consumption taxes than to pure income taxes").

[108] The capital gains preference is a result of pragmatism in the early history of the income tax. Morgan, *supra* note 11.

[109] *See supra* note 89.

[110] *See e.g.* KAPLOW, *supra* note 107, at 221-248; Banks & Diamond, *supra* note 72.

[111] Shakow, *supra* note 9, at 1114. (Arguing that "Compared to our current income tax system, however, an accrual system would be more efficient, more equitable, and, in significant ways, simpler").

should capital gains be taxed on realization rather than as they accrue?[112] These deviations from what would be otherwise optimal exist out of necessity, or at least, perceptions thereof.

Specifically, realization exists as a result of the inherent difficulties of accrual taxation, which requires yearly appraisals and valuation of the change in a taxpayer's assets. The drawback is that taxpayers can selectively trigger and hence minimize taxes. Accrual and realization are opposites sides of the same coin: realization fixes the valuation problem inherent in accrual, while accrual fixes the lock-in, deferral, and loss-harvesting associated with realization.[113] The choice between accrual and realization is orthogonal to the choice between levying a tax only on the change in an asset's value (income) and the totality of that asset's value (wealth). In fact, there exist analogues to the realization-based capital income tax for wealth taxes. One variant is the estate tax under the current Internal Revenue Code where death is the realization event.[114] But the more direct analogue of a realization-based capital income tax is a levy on the entire value of an asset when it is sold. This is effectively a realization-based capital income tax where asset basis is always taken to be zero, which looks radically different from the popular narrative of a wealth tax. However, when we compare apples to apples, we see that there is little difference between the two taxes, and indeed a realization-based wealth tax can be made broadly equivalent to a realization-based capital income tax in a similar way as accrual-based wealth and income taxes.

To see the relationship between realization and accrual-based income and wealth taxes, consider a taxpayer who has $10,000 in wealth invested in two productive assets: a house worth $8,000 and stock worth $2,000. Both assets were purchased a year ago. The house was originally purchased for $7,500 while the stock was acquired for $3,000. Under a capital income tax the taxpayer would have a $500 gain if she sold the house and a $1,000 loss if she sold the stock. If this tax were realization-based, then this amount would be triggered only upon disposition. But if the taxpayer were to engage in a wash-sale transaction each year, selling and repurchasing her assets regardless of price movements, then she would have recreated an accrual-based income tax. The sale and immediate repurchase of both assets after one year would therefore yield a net loss of $500. Suppose now that the taxpayer was subject to a realization-based wealth tax. If the taxpayer engages in the yearly wash-sale transactions, then we have recreated an annual wealth tax. She would be taxed on that $10,000 regardless of whether it was a net gain or net loss. Conversely, should she not do this, then she will only be taxed upon disposing of an asset, though for the full amount and not simply any gain or loss. Under realization-based capital income taxation and wealth taxation the taxpayer can choose when and how to trigger any gains or losses, with the taxpayer being able to selectively choose to reveal changes in asset values (under the income tax) and her wealth (under the wealth tax). In this way, realization-based wealth taxes are again

[112] *See* the discussion in Morgan, *supra* note 11.

[113] Suppose a taxpayer has an asset which is hard to value. Under an accrual-based tax we would have to value that asset, which is hard. Under a realization-based tax we would no longer have to value the asset but instead simply impose a levy on the sales price, generating deferral. The problem is summarized by James W. Wetzler, *Capital Gains and Losses,* in Comprehensive Income Taxation 115, 120 (J. Pechman ed. 1977) ("Completely eliminating deferral means taxing on accrual, which must be ruled out because it would be extraordinarily difficult to value nonmarketable assets every year in order to measure the accrued gain or loss").

[114] Discussed in greater detail in Part III.B, *infra*.

normatively equivalent to realization-based capital income taxes, as was the case for accrual-based taxes.

While unstated by Saez and Zucman, it is not the imposition of a wealth tax *per se* that would end deferral, but rather the shift to an accrual-based system that happens to take the form of a wealth tax. An accrual-based capital income tax would have the same effect, as was mentioned in some of the responses to Saez and Zucman and, in passing, by Saez and Zucman themselves.[115] A realization-based wealth tax does not levy a tax on wealth as defined under Haig-Simons, just as a realization-based capital income tax is not a levy on Haig-Simons income. Both taxes fall outside of the Haig-Simons framework precisely because of realization. Thus when comparisons are made between an annual wealth tax and a realization-based income tax, we are comparing two types of taxes that are fundamentally different. When Sarin and Summers disagree with Saez and Zucman's position that a wealth tax would be a serious improvement over the current capital income tax they are not disagreeing with wealth taxation or the theory behind it. Rather, it seems like more of a disagreement over whether an accrual-based tax would be a viable alternative to realization.[116] While Saez and Zucman implicitly argue that accrual taxation should be the way forward, Sarin and Summers effectively counter that the current realization-based system is optimal once we consider tax administration and that problems relating to realization are overstated, provided that glaring flaws like stepped-up basis at death and charitable giving regime are fixed.[117] The emphasis on wealth taxation versus capital income taxation is really a question of semantics since the discussion targets a question entirely distinct from wealth or income taxation, namely, accrual versus realization and the administrability of either regime.

Given the finding of broad equivalence, the strengths and weaknesses of accrual are shared between annual wealth taxes and accrual-based capital income taxes. Shakow has been one of the strongest proponents of accrual taxation at least insofar as it applies to the capital income tax, arguing that the primary benefits of accrual taxation is the elimination of economic inefficiency caused by realization and the achievement of greater fairness by taxing someone who chooses to sell an asset the same as someone who chooses to hold.[118] These points are well made, but there are significant practical constraints on measuring the totality of a taxpayer's net wealth or the

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[115] Saez & Zucman, *supra* note 1, at 469 (arguing against an accrual-based income tax since it would hit entrepreneurs and others with a higher income more harshly compared to those with large accumulations of wealth: "One solution to remedy the delayed realization problem is to tax capital gains on accrual. […] Taxing capital gains on accrual means a heavy tax on entrepreneurs growing a successful business and building up wealth. In contrast, the wealthy rentier or heir who is invested in bonds or mature stock might not be taxed much"). *See also* Kopczuk, *supra* note 2, at 525 (responding to Saez & Zucman, he writes that "A much more productive effort [than enacting a wealth tax] would be to focus on feasible and necessary fixes of existing U.S. taxation […] [such as] moving away from realization and toward accrual taxation, in particular by considering mark-to-market of capital gains where feasible").

[116] Sarin et al., *supra* note 2, at 2-4 (much of their analysis hinges on the idea that elasticities regarding realization are overestimated, hence disagreeing with the point made by Saez and Zucman that realization is the problem). Summers contests their findings more explicitly: Summers, *supra* note 4.

[117] *See* note 2, *supra*.

[118] Shakow, *supra* note 9, at 1115. The fairness argument directly addresses taxpayers who are forced to sell due to an immediate need for liquidity (*e.g.* someone who needs to pay out of pocket for emergency medical treatment). *See* George M. Constantinides, *Capital Market Equilibrium with Personal Tax*, 51 ECONOMETRICA 611 (1983) (finding that individuals subject to a realization-based capital income tax should only liquidate when dictated to by a forced liquidation event, which is either death or some exogenous event that forces them to sell the asset).

yearly change in that wealth which would generate other types of economic inefficiencies and unfairness.[119] The big problem is determining the value of assets, known as valuation. There are some other problems, like the often-cited (but, it shall be argued, overstated) liquidity issue of taxpayers needing to have the money on hand to pay taxes as they come due. Additionally, if we no longer assume perfect markets and allow for asset mispricing, then accrual-based taxes can over or under tax ultimate consumption. Hence accrual-based taxes are imperfect taxes on excess returns and tax less financially sophisticated taxpayers more harshly than richer, more sophisticated taxpayers, which slightly undermines the equality and fairness-oriented foundations of popular narratives of accrual taxation.

III.B. Valuation: Measuring Value

Valuation is the primary drawback for accrual-based wealth and capital income taxes. Both taxes impose burdens not on cash flows or imputed cash flows (broadly, realization), but on the actual values or change in value of assets owned at given periods of time. For liquid, publicly traded assets this is easy. But other asset classes would require valuation, whether done through discounted cash flow analysis or otherwise. The process of finding the theoretical fundamental value of an asset, the value which is not necessarily determined by a sale or other transaction, is unnecessary for realization-based capital income taxes precisely because sales prices are readily observable. Conversely, valuation has been a primary challenge for wealth taxes in Europe and is noted as one of the two main flaws of a recurring wealth tax by the U.K. Wealth Tax Commission.[120] It is likewise deemed a serious challenge by the OECD's 2018 Report on the Design of Wealth Taxes.[121] While Saez and Zucman argue that valuation would be a minor problem,[122] an extensive overview of valuation under a wealth tax, which is directly applicable to an accrual-based capital income tax, suggests that valuation is a serious first-order issue.[123] The reasons are threefold. First, valuation for many widely-held asset classes is particularly difficult, with a notable example being private businesses.[124] Liquid markets do not exist for many asset classes, hence there is no readily observable market price.[125] Especially as taxpayers' wealth rises many of their assets, like private businesses, controlling stakes in publicly traded firms, or even real estate, become more unique and hence there are fewer comparators which can be used to calculate reasonable value estimates.

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[119] Of the points that follow, valuation and liquidity are laid out by Shakow, *supra* note 9, at 1114-1115.

[120] Advani, Chamberlain, & Summers, *supra* note 7, at 54-61; Lindsay Pentelow, UK TAX VALUATION AND POTENTIAL WEALTH TAX. WEALTH TAX COMMISSION BACKGROUND PAPERS. Wealth Tax Commission (2020); Daniel Ryan, VALUATION OF BUSINESSES AND INTELLECTUAL PROPERTY ASSETS. WEALTH TAX COMMISSION BACKGROUND PAPERS. Wealth Tax Commission (2020). Several other background papers from the Commission examine particular valuation issues, and may be found in the online repository cited *supra* note 7.

[121] OECD, *supra* note 58.

[122] Saez & Zucman, *supra* note 1 make this point throughout their piece. For commentators who believe valuation would be a more significant issue, *see e.g.* Kopczuk, *supra* note 2; *Morgan Valuation*, *supra* note 5; and Jeffrey N. Pennell, *An Alternative to a Wealth Tax: Taxing Extraordinary Income*, 171 TAX NOTES FED. 891 (2021).

[123] *Morgan Valuation*, *supra* note 5.

[124] *Id*. at Part III.B.2.

[125] *Id*. at Part III.A.2; III.B.

Second, taxpayers can use various structures to obfuscate ownership and create diverse ownership interests, thereby making valuation far more difficult. For example, under the present estate tax Joseph Dodge writes that taxpayers use various legal structures, family limited partnerships and grantor retained annuity trusts (GRATS) in particular, to significantly frustrate tax collection under the tax.[126] IRS estimates find that planning techniques used to create firm value discounts which can then be reversed, like the use of family limited partnerships, have hidden up to 65% of firm value.[127] A wealth tax would therefore have to be accompanied by broad tax reform, making it a more daunting task then simply adopting an annual levy on wealth. Third, Survey of Consumer Finance data shows that only a relatively small percentage of wealthy taxpayers' assets fall under categories of assets that are thought of as easy to value, such as publicly traded and liquid securities.[128] Looking at data from 1989 to 2019, estimates show that private enterprises were between 40-50% of survey participants' aggregate asset values for the top 0.1% of taxpayers, and that hard to value assets were between 60 to 80% of assets held by very wealthy taxpayers.[129] The big development was the growth in fund holdings compared to the relative decline in directly held equity and bonds, which by 2019 were only about 15% of the top 0.1%'s total assets.[130] "Fund holdings" is a broad category which includes private equity funds, real estate funds, and mutual funds, which vary in terms how easy they are to value.[131]

Assuming that valuation is indeed a serious problem under a wealth or accrual-based capital income tax, what are the consequences and how easy would solutions be to implement? To try and analyze the problem more rigorously, let us suppose that the consequence of valuation being "hard" for an asset is as follows. There is some "true" value $X, and some range between $X+$R and $X-$R. The harder an asset is to value then the greater this $R. One first consequence is that taxpayers would be encouraged to invest in hard to value assets, including assets located in foreign jurisdictions and businesses that are not traditional brick-and-mortar or industrial concerns. The greater the possible valuation range then the greater the likelihood that the revenue authority would accept a lower estimate and, if not, the greater the chance that a court would.[132] If indeed

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[126] Joseph M. Dodge, *Three Whacks At Wealth Transfer Tax Reform: Retained-Interest Transfers, Generation-Skipping Trusts, And FLP Valuation Discounts*, 57 BOSTON COLLEGE LAW REVIEW 999, 1005 (2016).

[127] *See* Martha Britton Eller, *Which Estates Are Affected by the Federal Estate Tax?: An Examination of the Filing Population for Year-of-Death 2001.* IRS Statistics of Income Bulletin (2005), online at https://www.irs.gov/pub/irs-soi/01esyod.pdf. For a discussion of Family Limited Liability Partnerships, *see* George F. Del Duca, *Rethinking the Valuation of Family Limited Partnerships Holding Passive Assets.* The Florida Bar Journal, 75(9), 58 (2001)

[128] *Morgan Valuation*, *supra* note 5, at Part II.A. *See also* Smith, Matthew and Zidar, Owen and Zwick, Eric, *Top Wealth in America: New Estimates and Implications for Taxing the Rich* (University of Chicago, Becker Friedman Institute for Economics Working Paper No. 2021-119), https://ssrn.com/abstract=3945830 (only insofar as it relates to net wealth breakdowns)

[129] *Morgan Valuation*, *supra* note 5, at Part II.A.

[130] *Id.*

[131] *Id*.

[132] The question of errors in tax administration has been studied in the literature, *see e.g.* Louis Kaplow, *Accuracy, Complexity, and the Income Tax*, 14 J LAW ECON ORGAN 61 (1998). Though it was in the context of the income tax, many of the lessons and conclusions are generalizable. *See also* Louis Kaplow, *How tax complexity and enforcement affect the equity and efficiency of the income tax*, 49 NATIONAL TAX JOURNAL 135 (1996); Martin Feldstein, *Tax Avoidance and the Deadweight Loss of the Income Tax*, 81 REVIEW OF ECONOMICS AND STATISTICS 674 (1999); Louis Kaplow, *Optimal taxation with costly enforcement and evasion*, 43 JOURNAL OF PUBLIC ECONOMICS 221 (1990); Joel Slemrod, *A General Model of the Behavioral Response to Taxation*, 8 INTERNATIONAL TAX AND PUBLIC FINANCE 119

private businesses and private market assets are harder to value and taxpayers would be encouraged to invest in hard-to-value assets, then we would see wealthy taxpayers move towards the private sector.[133] We know from the finance literature (notably work by Rene Stulz) that the number of publicly listed firms has been steadily decreasing both in the U.S. and abroad: in the U.S. publicly listed companies fell from 7576 in 1997 to only 3613 in 2018; while in the U.K. listings fell by 29% between 2006 and 2018.[134] We probably do not want to be encouraging this trend through the tax system. Similarly, since foreign assets in less developed markets may be more illiquid and thus harder to value, a wealth or accrual-based tax may likewise encourage capital flight away from the United States.[135] Again, this is probably not desirable.

Easy solutions do not seem to exist. A common proposal, but one that is probably far less effective than many suggest, is the use of formulaic solutions to estimate wealth. One option would be to estimate firm value according to book value, but this is a hugely imperfect system which the Wealth Tax Commission noted would be easily gamed by taxpayers, would have serious horizontal equity issues, and would require extensive anti-avoidance rules.[136] Another class of formulaic valuation works by imputing growth based on an initial price, as follows. Suppose we know a taxpayer had purchased an asset for $100 in 2010. We would then attribute a certain growth path to it, of say, 5% per year: we would then know that in 2011 it would be worth $105, and apply a wealth tax accordingly.[137] This too seems like a very flawed foundation for a tax system, encouraging taxpayers to hold on to assets if they believe the intrinsic value to be above the projected growth and to engage in wash-sales if below. Otherwise, questions abound as to the general application of imputing growth. Would growth rates be adjusted annually? What would happen during a recession, would the adjustment happen ex-post, or would we simply apply the short-term riskless rate? Leaving such issues aside a formulaic approach would still need to undergo periodic valuations to ensure correctness, and valuation must happen at least once when an asset is acquired outside of the market (or at the onset of the tax). More problematically, formulaic valuation leading to both lock-in and wash-sales means that realization-based capital income tax problems are not fully resolved.[138] Parts of Switzerland do presently use a system

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(2001); Joel Slemrod & Shlomo Yitzhaki, *Tax Avoidance, Evasion, and Administration*, *in* HANDBOOK OF PUBLIC ECONOMICS (Alan Auerbach & Martin Feldstein eds., 2002).

[133] This is partially the point made by *Morgan Valuation*, *supra* note 5, at Part IV.

[134] *See* Craig Doidge, G. Andrew Karolyi & René M. Stulz, *The U.S. listing gap*, 123 JOURNAL OF FINANCIAL ECONOMICS 464 (2017); Rene M. Stulz, *Public versus private equity*, 36 OXFORD REVIEW OF ECONOMIC POLICY 275 (2020). *See generally Morgan Valuation*, *supra* note 5, at Part III.B.

[135] Reporting would likewise be affected: *see e.g.* Jose M. Duran-Cabre et al., *The Tax Gap As A Public Management Instrument: Application To Wealth Taxes*, 27 APPLIED ECONOMIC ANALYSIS 207–225 (2019); Arun Advani & Hannah Tarrant, *Behavioural responses to a wealth tax*, 42 FISCAL STUDIES 509–537 (2021); Brülhart et al., *supra* note 14; Seim, *supra* note 14.

[136] Different asset classes are treated differently for accounting purposes which would make the approach apply differently, which is most of the problem with valuation identified here: *see generally* CHRISTOPHER NOBES, ACCOUNTING: A VERY SHORT INTRODUCTION (2014). The case for using book values, and associated discussions, are presented in Stephen Daly & Glen Loutzenhiser, VALUATION, WEALTH TAX COMMISSION BACKGROUND PAPERS. Wealth Tax Commission (2020) 15-17. *See also* DAVID GAMAGE, ARI D. GLOGOWER & KITTY RICHARDS, *How to Measure and Value Wealth for a Federal Wealth Tax Reform* (2021), https://papers.ssrn.com/abstract=3817773 (last visited Dec 31, 2021).

[137] *See generally* Daly & Loutzhenhiser, *supra* note 136; Gamage et al., *supra* note 136.

[138] *Morgan Valuation*, *supra* note 5, at Part IV.C-D.

partially based on formulaic valuation, and it is seriously flawed.[139] Suffice to say that valuation would be a significant problem under a U.S. wealth tax and there do not seem to be easy answers, with formulaic valuation proposals almost certainly not being the silver bullet many would hope it to be. Investment banks have a hard time with valuation even when they generate direct benefits from correctness or "close enough" approximations: we have little reason to think that a revenue authority would do a better job. Still, whether some practicable shortcuts would be sufficiently effective is a question left to future work, and is likely the be-all end-all question of the effectiveness of wealth and accrual-based capital income taxes.

III.C. Liquidity: Paying Taxes Without Realization

One of the common arguments against both wealth taxes and accrual-based capital income taxes is that they can cause taxpayers to owe taxes without having the cash on hand to pay said taxes.[140] The idea goes as follows. Suppose that a taxpayer has $10 million in assets and is subject to a 5% wealth tax, such that they owe about $500,000 in taxes. Unless the taxpayer has this money hanging around, they will have to sell some of their assets to fund their tax liabilities or borrow to finance the paying of the tax. Should a taxpayer resort to borrowing then the revenue authority must decide whether to allow that interest to be tax deductible. If borrowing is unavailable then a forced sale seems like less of a problem for liquid assets, but taxpayers often have most of their wealth in illiquid assets (like real estate) which we probably do not want them to sell.[141]

The U.K. Wealth Tax Commission found this problem not as widespread as many believe.[142] Realistically, the extent would depend on the tax rate. For example, suppose that Congress were to adopt an annual wealth tax. A 0.5% wealth tax rate should be readily payable since taxpayers would only need to have cash on hand, or borrow, for one two hundredth of their reported or assessed wealth, which would likely be far less than their total wealth. Conversely, a 10% wealth tax rate may well result in very real liquidity problems.[143] Thus while liquidity is an issue, it is probably much smaller than has otherwise been recognized. For example, Shakow places liquidity on the same level as valuation in terms of arguments against accrual-based taxes.[144] Returning back to the Commission, despite noting that the problem is smaller than assumed, they

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[139] *See* Lukas Aebi & Jean-Blaise Eckert, WEALTH TAX: SWITZERLAND. WEALTH TAX COMMISSION BACKGROUND PAPERS. Wealth Tax Commission (2020), https://www.wealthandpolicy.com/wp/133.html. *See also Morgan Valuation*, *supra* note 5, at Part IV.C.

[140] For the most extensive discussion of liquidity under wealth taxes *see* the related papers from the Wealth Tax Commission: Emma Chamberlain, DEFINING THE TAX BASE: DESIGN ISSUES. WEALTH TAX COMMISSION BACKGROUND PAPERS. Wealth Tax Commission (2020); Glen Loutzenhiser & Elizabeth Mann, LIQUIDITY ISSUES: SOLUTIONS FOR THE ASSET-RICH-CASH-POOR. WEALTH TAX COMMISSION BACKGROUND PAPERS. Wealth Tax commission (2020); Wealth Tax Commission (2020); Hannah Tarrant, VALUATION AND LIQUIDITY ISSUES FOR PRIVATE BUSINESSES: QUANTITATIVE EVIDENCE. WEALTH TAX COMMISSION BACKGROUND PAPERS. Wealth Tax Commission (2020). For another discussion, *see* David Gamage & Darien Shanske, *States Should Consider Partial Wealth Tax Reforms*, 96 Tax Notes 859, (2020).

[141] *See* the empirical findings of *Morgan Valuation*, *supra* note 5.

[142] Advani, Chamberlain, & Summers, *supra* note 7.

[143] In the extreme case where a 100% wealth tax is imposed then the taxpayer will generally have to liquidate all of their holdings in order to pay the tax. The question for tax policy purposes is how high of a rate can be imposed without requiring such liquidation, which may be inefficient.

[144] Shakow, *supra* note 9, at 1113.

still conclude that liquidity is one of two fatal flaws of a recurring (annual) wealth tax and one of the reasons they strongly recommend against such a tax.[145] Their ultimate proposal for a one-time wealth tax specifically builds in mechanisms to fix the liquidity problem where taxpayers can pay the tax in installments over multiple years.[146] Of course, a similar solution for yearly wealth taxes seems highly impracticable and could well act as a mechanism for deferral. The liquidity problem occurs since tax liability is incurred regardless of whether there is a realization event, which is equally true of accrual-based capital income taxes hence the problem is not unique to wealth taxation.[147]

Realization-based systems do not suffer from liquidity issues precisely because of realization. If a tax only triggers once a realization event happens, like a sale, then there is no problem with taxpayers having the required funds to pay the tax unless the tax burden imposed is over 100% of the funds received. There is no liquidity problem with a realization-based capital income tax, which is equally true for the realization-based wealth tax. Hence regardless of the extent of the liquidity problem, realization provides a simple solution.

III.D. Path Independence: Taxing Ultimate Consumption

"Path independence" is a made-up term which captures the intuition that savings or capital eventually transform into consumption – it is then assumed that what we want to tax is a taxpayer's ultimate consumption, which is an idea that comes from the consumption tax literature.[148] The normative claim is that since savings translate into future consumption, we care about the ultimate magnitude or "true" market value of assets only when the value captured in those assets is consumed. Is a taxpayer truly rich if they have valuable assets on paper that they are unable to draw any capital or consumption from?[149] Economists would say no, but Al Warren disagrees, having argued that paper wealth in and of itself brings benefits.[150] The right answer is probably

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[145] Advani, Chamberlain, & Summers, *supra* note 7, at 61-66.

[146] *Id.* at 61-66.

[147] This point is likewise made regarding discussions of mark-to-market taxes in Gamage & Shanske, *supra* note 140 who would similarly allow for a prolonged period of time for a one-time wealth tax to be paid.

[148] *See generally Andrews 73*, *supra* note 12, and *Andrews 74*, *supra* note 12.

[149] The general answer to this is no, as evidenced by illiquidity discounts which apply precisely because investors who hold such assets are unable to sell them. *See Morgan Valuation*, *supra* note 5, for a discussion in the tax context. For the financial literature *see e.g.* Yakov Amihud & Haim Mendelson, *Asset Pricing and the Bid-Ask Spread*, 17 JOURNAL OF FINANCIAL ECONOMICS 223 (1986); Andrew Ang, Dimitris Papanikolaou & Mark M. Westerfield, *Portfolio Choice with Illiquid Assets*, 60 MANAGEMENT SCIENCE 2737 (2014); ASWATH DAMODARAN, *Marketability and Value: Measuring the Illiquidity Discount* (2005), https://papers.ssrn.com/abstract=841484; Bespen Eckbo & Øyvind Norli, *Liquidity risk, leverage and long-run IPO returns*, 11 JOURNAL OF CORPORATE FINANCE (AMSTERDAM, NETHERLANDS) 1 (2005); William Fung et al., *Hedge Funds: Performance, Risk, and Capital Formation*, 63 THE JOURNAL OF FINANCE 1777 (2008); Gordon Gemmill, *Transparency and Liquidity: A Study of Block Trades on the London Stock Exchange under Different Publication Rules*, 51 THE JOURNAL OF FINANCE 1765 (1996); Taylor D. Nadauld et al., *The liquidity cost of private equity investments: Evidence from secondary market transactions*, 132 JOURNAL OF FINANCIAL ECONOMICS 158 (2019); William L. Silber, *Discounts on Restricted Stock: The Impact of Illiquidity on Stock Prices*, 47 FINANCIAL ANALYSTS JOURNAL 60 (1991); LAURA SPIERDIJK, THEO NIJMAN & ARTHUR VAN SOEST, *The Price Impact of Trades in Infrequently Traded Stocks in Periods of High and Low Market Activity* (2002), https://papers.ssrn.com/abstract=301833; Dimitri Vayanos & Jiang Wang, *Market Liquidity—Theory and Empirical Evidence*, 2 HANDBOOK OF THE ECONOMICS OF FINANCE 1289 (2013).

[150] Warren, *supra* note 12 at 1169; Warren, *supra* note 21, at 1122.

no, and we can see this by looking at the opposite situation. Suppose that a taxpayer has assets that have relatively little value on paper, but are sold by the taxpayer at much higher prices at some future date. Further suppose the taxpayer knows the asset is far more valuable than it appears such that we are now in the realm of an insidious and familiar problem: the failure to capture economic rents.[151] In essence, a tax which is path dependent means that the greater an asset's paper value (which is taken to be different from its intrinsic value) then the greater the tax burden. The problem is that sophisticated investors are far better at finding undervalued assets where the market or paper value is below intrinsic value. Under a tax that is path dependent lower asset prices will result in lower tax burdens compared to investing ability.[152] Thus it will be precisely those sophisticated investors who should be taxed more that are being taxed less.

In nominal terms this problem conforms to Haig-Simons, but we diverge when considering discounted present value. Suppose that we have an accrual-based capital income tax, that we ignore inflation, asset mispricing exists, and the risk-free rate is 10%.[153] The taxpayer purchases an overpriced asset for $100 at the start of the first year. At the end of the first year the asset has jumped in value to $150, such that the taxpayer has a $50 inclusion. The following year (the second year) the asset falls in value back to $100 such that the taxpayer has a $50 deduction. Let us imagine the taxpayer sells it at the end of the second year, consuming the entirety of the $100 proceeds from the sale. Nominally, the taxpayer has a $50 inclusion in the first year and a $50 deduction in the second, which balance out. However, the present value of the inclusion and deduction, assessed at the purchase of that initial $100 asset, is $45.45 and $41.32, respectively. The taxpayer has suffered a loss in real terms: that nominal $100 of consumption at the end of year two is worth $82.64 in terms of present value. Despite this actual loss, the taxpayer has a tax inclusion (in real terms) of $4.13. A wealth tax would have a similar but more obvious outcome: the taxpayer would see a levy in the first period on that $150 followed by a levy on the next period's $100, despite the ultimate consumption being $100. Joseph Bankman and David Weisbach have argued that a cash-flow consumption tax should be enacted precisely since it would eliminate inter-temporal distortions such as this.[154] However, note that their proposal comes at the cost of leaving

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[151] *See* Gregor Schwerhoff, Ottmar Edenhofer & Marc Fleurbaey, *Taxation of Economic Rents*, 34 JOURNAL OF ECONOMIC SURVEYS 398–423 (2020), noting that while the focus of Schwerhoff, Edenhofer, & Fleurbaey is on land rents they discuss economic rents more generally as well. Otherwise, *see generally* Joseph E. Stiglitz, *The Origins of Inequality, and Policies to Contain it*, 68 NATIONAL TAX JOURNAL 425 (2015); *see also* HAL R. VARIAN, INTERMEDIATE MICROECONOMICS: A MODERN APPROACH (8th ed. 2010).

[152] The ideal tax is not on wealth or income, but would instead be a lump-sum tax or a tax on pure ability. If we tax someone on their ability then the tax system will generate no further distortions, since the taxpayer will be unable to avoid the tax. Of course, such a tax is impossible, thus we tax proxies of ability (like income or wealth) instead. *See generally* James A. Mirrlees, *An Exploration in the Theory of Optimum Income Taxation*, 38 THE REVIEW OF ECONOMIC STUDIES 175–208 (1971); JAMES A. MIRRLEES, WELFARE, INCENTIVES, AND TAXATION (2006); MATTI TUOAMALA, OPTIMAL REDISTRIBUTIVE TAXATION (2016); KAPLOW, *supra* note 107.

[153] For a discussion of inflation and taxes, *see e.g.* Martin Feldstein, *Inflation, Income Taxes, and the Rate of Interest: A Theoretical Analysis*, 66 AMERICAN ECONOMIC REVIEW 809 (1976); Robin Morgan, *The Taxation of Tips: Are they Really Tax-Disadvantaged?* 26(1) Fl. Tax. Rev. (2022) (forthcoming).

[154] *See e.g.* Bankman & Weisbach, *supra* note 12; Joseph Bankman & David Weisbach, *Reply: Consumption Taxation Is Still Superior to Income Taxation*, 60 STANFORD LAW REVIEW 789 (2007); Joseph Bankman & Thomas Griffith, *Is The Debate Between An Income Tax And A Consumption Tax A Debate About Risk? Does It Matter?*, 47 TAX LAW REVIEW 377 (1992).

the risk-free rate untaxed, and as was seen above this means that capital would generally escape taxation altogether.[155]

The problem of nominal versus real taxation exists under a realization-based capital income tax as well, but it is more pronounced under accrual-based taxes. In the prior example, under a realization-based capital income tax the taxpayer would owe no tax on the purchase of a $100 asset and the sale of that same asset for $100, despite it being sold at a loss in real terms. Accrual-based taxes add another layer on top of the problem of nominal taxation, which is timing issues between tax accruals according to fluctuations in asset prices while the asset is held.[156] In the prior example, under realization the taxpayer would have no taxable consequences, while under accrual they would have an immediate inclusion followed by a later deduction of equal nominal but different real value. Hence, a taxpayer may find themselves overtaxed (or undertaxed) relative to how much they consume based on the price trajectory of the particular asset. All considered this is a relatively minor problem and should not be determinative of whether accrual-based taxes should be adopted, unlike questions relating to valuation.

III.E. The Incomplete Taxation of Excess Returns

A direct result of Kaplow's 1994 article is that a capital income tax or otherwise equivalent wealth tax is solely a levy on the risk-free rate.[157] Under this framework we should not care, at all, about the taxation of excess returns. Yet the idea of taxing excess returns and rents certainly has some emotional appeal – Elizabeth Warren declaring that she will hunt down Jeff Bezos' meteoric returns from Amazon is a much more striking story than if she would say she is going after his riskless returns – but it is unclear how much would be lost if rents went untaxed.[158] Insofar as excess returns are linked to market irregularities being exploited by those with increased ability, or otherwise reflect taxpayers' with greater ability being able to translate that ability into greater returns, the emphasis on taxing rents is in line with first-principles for a tax system. It is not clear, as a practical matter, how large of a problem this is in the real world.

Wealth and accrual-based capital income taxes only capture excess returns once they are reflected in asset prices. This can happen either if market prices reflect intrinsic value, or if a

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[155] Per Kaplow, *supra* note 49.

[156] This is predominantly explored in the literature discussing the taxation of bonds. *See e.g.* G. M. Constantinides & J. E. Jr Ingersoll, *Optimal Bond Trading with Personal Tax: Implications for Bond Prices and Estimated Tax Brackets and Yield Curves*, 37 JOURNAL OF FINANCE 349 (1982); Joseph Bankman & William A. Klein, *Accurate Taxation Of Long-Term Debt: Taking Into Account The Term Structure Of Interest*, 44 TAX LAW REVIEW 335 (1989); Theodore S. Sims, *Long-Term Debt, The Term Structure Of Interest And The Case For Accrual Taxation*, 47 TAX LAW REVIEW 313 (1992); Jeff Strnad, *The Taxation Of Bonds: The Tax Trading Dimension*, 81 VIRGINIA LAW REVIEW 47 (1995).

[157] This is explained more fully in Kaplow, *supra* note 49, at 792-793 ("With an appropriate portfolio adjustment, therefore, a tax on excess returns is equivalent to no tax at all.")

[158] *See* Thomas Franck, Elizabeth Warren makes fresh push for wealth tax – 'Yes, Jeff Bezos, I'm looking at you' (CNBC Jul. 28 2021), https://www.cnbc.com/2021/07/28/elizabeth-warren-targets-jeff-bezos-in-wealth-tax-push.html. Regarding taxing risky versus riskless returns, *see* Kaplow, *supra* note 49; Alan Auerbach, *Retrospective Capital Gains Taxation*, 81 THE AMERICAN ECONOMIC REVIEW 167 (1991); Alan J. Auerbach & David F. Bradford, *Generalized cash-flow taxation*, 88 JOURNAL OF PUBLIC ECONOMICS 957 (2004) (the generalized cash flow tax as a retrospective tax would hit excess returns); David A. Weisbach, *The Taxation of Risk*, 58 TAX LAW REVIEW 1 (2004); Bankman & Griffith, *supra* note 142.

taxpayer sells their asset and invests in another asset whose market price reflects intrinsic value. Hence, wealth and accrual-based capital income taxes are imperfect taxes on excess returns. The reason is that seen above under path independence: assets with abnormal returns are those whose current market prices are lower than their discounted future values.[159] Since this current price is what is taxed, it is independent of future value, hence the excess return goes undertaxed. If a taxpayer purchases an asset at a discount for $100 knowing that the true value is $200 but it takes several years for the asset to reach this amount, then the taxpayer will underpay taxes relative to the intrinsic value of the asset until that amount is reflected in pricing. Of course, this is perfectly acceptable under the Haig-Simons definition of income and wealth, which is partly why the very discussion of excess returns has unclear footing in terms of tax policy.

III.F. *Are the difficulties of Accrual-based taxes Overstated?*

Historically, accrual-taxation has been viewed as too complicated to work because of valuation and liquidity concerns.[160] The valuation problem is very real and possibly fatal, but the liquidity concern seems overstated. Wealth taxes have captured the imagination of policymakers over the past few years; one need only look at the 2020 Democratic Primaries to see this.[161] The reason why can be traced to the main difference between a wealth or accrual-based tax and a realization-based tax: the yearly taxation of capital prevents taxpayers from being able to defer any gains or other increases in their capital stock and hence can present itself as an immediate solution and tax on accumulated savings. Indeed, part of Elizabeth Warren's election platform during the 2020 Primaries sought to include a mark-to-market style tax precisely to end deferral; which is likewise why New York State is considering a mark-to-market system.[162] Academics in support of both (or either) wealth taxes and mark-to-market systems do so primarily to tackle the same key problems of deferral and realization, although the primary political argument made in favour of these systems is that they would reduce inequality and increase redistribution.[163]

Is there any indication that a wealth or accrual-based capital income tax could work – are the difficulties overstated? The selective application of wealth or accrual-based taxes could be manageable, but it seems like a broad-based individual accrual-based tax would still be very problematic to administer. There is an unfortunately large historic sample of countries trying, and

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[159] *Supra* Part III.D.
[160] *See* the discussion in Shakow, *supra* note 9, at 1114-1119. *See also General Tax Reform: Panel Discussions Before the House Comm. On Ways and Means,* 93d Cong., 1st Sess. 285 (1973) (testimony of Professor Richard Musgrave) ("Obviously, . . .taxation of all current but unrealized gains on an annual accrual basis would be unmanageable."); David F. Bradford, *The Case for a Personal Consumption Tax,* in WHAT SHOULD BE TAXED: INCOME OR EXPENDITURE? 83 (J. Pechman ed. 1980) ("Though it might be possible to measure these accruals currently where active markets exist, **. . .** such procedures have not interested practical men (in part because they do not seem to consider genuine the wide swings in wealth that these valuations imply"); Lawrence H. Seltzer, THE NATURE AND TAX TREATMENT OF CAPITAL GAINS AND LOSSES 83 (1951).
[161] *See supra* note 5 and associated text.
[162] *See* NY Senate Bill S4482, *supra* note 6; Frank, *supra* note 6.
[163] *See e.g.* Saez & Zucman, *supra* note 1; Schenk, *supra* note 5; David Gamage, *The Case For Taxing Labor Income, Consumption, Capital Income, And Wealth*, 68 TAX LAW REVIEW 355 (2015); Piketty, *supra* note 1; Daniel N. Shaviro, *Inequality, Wealth and Endowment*, 53 TAX LAW REVIEW 397 (2000).

failing, to impose wealth taxation.[164] While the United States does not currently impose yearly taxation of a taxpayer's wealth, there is a one-time wealth tax of sorts in the form of the estate tax. The estate tax lives in Subtitle B, Chapter 11 of the Internal Revenue Code, and imposes a one-time tax on the amount of the taxable estate plus the amount of any adjusted gifts.[165] Since at least 1979 the estate tax has been styled a voluntary tax, notably by George Cooper.[166] An expansive overview of the estate tax is well beyond the scope of this paper, but there has been extensive work documenting the problems with the tax and outlining reform proposals, which notably include moving towards an accession tax (in other words, a realization-based income tax model).[167] The estate tax is generally regarded as a failure, with preliminary and rough estimates by Calvin Johnson finding that the tax gap for the 0.1% wealthiest in 2013 amounted to roughly 75%.[168]

Other countries, especially in Europe, have tried to use wealth taxes to supplement the income tax. Their experience has generally been quite negative: according to Florian Scheuer and Joel Slemrod, between 1990 and 2018 the number of European countries which had an annual tax on wealth fell from 12 to 4.[169] The four countries which still imposed a wealth tax in 2018 were France, Norway, Spain, and Switzerland.[170] France has since moved towards a tax on immovable (real) property.[171] Switzerland is perhaps the most successful story of a wealth tax, which taxes net worth and raised about 1.1% of GDP as revenue in 2018.[172] However, the Swiss wealth tax is largely seen as a stand-in for a capital gains tax (which otherwise does not exist in Switzerland) especially since in some cantons there is a cap on liability based on a taxpayer's yearly income.[173] Still, the Swiss system is the closest thing to a workable example of a broadly applicable wealth tax, though it is notable that it is not designed as a mechanism to combat inequality and starts at wealth thresholds much lower than the ultra-millionaire taxes proposed in Congress.[174]

There is some positive news for proponents of accrual. While its experience with wealth taxes is limited to the estate tax, the United States does employ accrual-based capital income tax

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[164] Scheuer & Slemrod, *supra* note 2.

[165] I.R.C. § 2001(a)-(b).

[166] George Cooper, *A Voluntary Tax? New Perspectives on Sophisticated Estate Tax Avoidance*, 77 COLUMBIA LAW REVIEW 161 (1977).

[167] *See e.g.* Dodge, *supra* note 126; Calvin H. Johnson & Joseph M. Dodge, *Passing Estate Tax Values Through The Eye Of The Needle*, 132 TAX NOTES 939 (2011); Bridget J Crawford, *Valuation, Values, Norms: Proposals For Estate And Gift Tax Reform*, 57 BOSTON COLLEGE LAW REVIEW 979 (2016); Michael J. Graetz, *To Praise the Estate Tax, Not to Bury It*, 93 THE YALE LAW JOURNAL 259 (1983); Louis Eisenstein, *The Rise And Decline Of The Estate Tax*, 11 TAX LAW REVIEW 223 (1956); Wojciech Kopczuk, *Bequest and Tax Planning: Evidence from Estate Tax Returns*, 122 THE QUARTERLY JOURNAL OF ECONOMICS 1801 (2007).

[168] Calvin H. Johnson. *The Estate Tax Gap*, 163 Tax Notes 1479 (2019)

[169] Scheuer & Slemrod, *supra* note 2, at 210.

[170] *Id*. at 210.

[171] *Id*. at 210; *see also* Marine Dupas, WEALTH TAX: FRANCE (1). WEALTH TAX COMMISSION BACKGROUND PAPERS. Wealth Tax Commission (2020), https://www.wealthandpolicy.com/wp/134.html; Jean-Marc Tirard, WEALTH TAX: FRANCE (2). WEALTH TAX COMMISSION BACKGROUND PAPERS. Wealth Tax Commission (2020), https://www.wealthandpolicy.com/wp/135.html.

[172] Scheuer & Slemrod, *supra* note 2, at 211. *See also* Aebi & Eckert, *supra* note 139 (discussing the Swiss wealth tax).

[173] *Id*.

[174] *Id*. The threshold for the first bracket in the Ultra-Millionaire Tax Act of 2021, *supra* note 6, is 50 million USD. The second bracket starts at 1 billion USD.

taxation in limited circumstances: § 475 of the Internal Revenue Code imposes yearly mark-to-market taxation on securities held by security dealers.[175] Note that "security" is narrowly defined such that it only generally includes shares or stock in corporations, interests in widely held or publicly traded partnerships and trusts, debt instruments, notional principal contracts, or their derivatives.[176] Of course, exceptions abound, and dealers in commodities or traders in securities can likewise elect to be governed by § 475.[177] Nevertheless this limited mark-to-market regime has generally worked well, though this may be because of its limited scope targeting publicly traded assets with readily available market prices.[178]

Does all of this mean that a wealth or accrual-based capital income tax would be a worse tax system than the present realization-based income tax? Sarin and Summers certainly believe that to be true, while Saez and Zucman disagree. In a narrow way § 475 has shown that an accrual-based tax can work, but wealth taxes have historically performed quite badly, whether in the U.S. through the estate tax or in Europe. Ultimately, the question will hinge on the exact contours of any law that gets passed, the effectiveness of valuation shortcuts, and the technology and resources available to the IRS. For example, the ability to gather information through the Foreign Account Tax Compliance Act (commonly known as FATCA) seriously reduces U.S. taxpayers' ability to hide assets offshore, so all things equal the United States could, in theory, run a more robust wealth tax than most other jurisdictions.[179]

IV. Conclusion

The discussion in this article has focussed on the distinction between wealth and capital income taxation. The similarities between the two systems greatly exceed their differences though the two are not the same in all respects, with aggregate risk-taking being lower under the wealth tax. So far, the academic and political debate has seemingly fixated on the differences between wealth and income taxation. However, this framing is misleading since the real debate is one between accrual versus realization. In fact, once broken down, most of the difficulties in administering a wealth and accrual-based capital income tax are the same, as are their solutions. Whether one considers realization a solution to accrual or a problem requiring an accrual-type fix is ultimately a question of perspective, but one which has deeply meaningful consequences for tax policy.

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[175] I.R.C. § 475.

[176] I.R.C. § 475(c)(2).

[177] I.R.C. § 475(e)-(f).

[178] Kara Friedenberg & Josephinea Wilber, *Mark-to-Market Election: Not So 'Ordinary' After All*, 146 Tax Notes 1013, Feb. 23, 2015; Tom Greenaway, *Mark-to-Market Tax Accounting: Why Wait for the Government?* 145 Tax Notes 1287, Dec. 15 2014; Alan D. Viard, *Moving Away from the Realization Principle*, 145 Tax Notes 847.

[179] For related discussions on the amount of assets held in offshore tax havens in other countries, *see e.g.* Gabriel Zucman, *Taxing across Borders: Tracking Personal Wealth and Corporate Profits*, 28 THE JOURNAL OF ECONOMIC PERSPECTIVES 121 (2014) (estimating that about 10% of wealth in Europe is held offshore, 80% of which goes unreported); Annette Alstadsaeter, Niels Johannesen & Gabriel Zucman, *Tax Evasion and Inequality*, 109 THE AMERICAN ECONOMIC REVIEW 2073 (2019) (using data from Scandinavia, the authors found that tax evasion through the use of offshore accounts was highly concentrated among the rich); Arthur J. Cockfield, *Examining Canadian Offshore Tax Evasion*, 65 CANADIAN TAX JOURNAL 651 (2017).

Another major though rarely understood form of taxation is the retrospective tax. The idea for the retrospective capital gains tax is often credited to Alan Auerbach's seminal 1991 article of the same name.[180] The starting point for retrospective taxation begins by outlining the problem with a realization-based system which, as seen above, is deferral and lock-in.[181] Building on early work by William Vickrey, Auerbach suggests a tax system which is designed to eliminate the "interest-free loan" benefit of deferral under a realization-based system, while still only applying the tax when a realization event has taken place.[182] Auerbach calls a system where there is no benefit to deferral one which satisfies holding period neutrality.[183] The system imposes an equivalent burden to an accrual-based system where an asset had grown at the riskless rate, ending at the realized amount, and where the taxpayer borrows at the riskless rate and repays all outstanding loans and tax payments upon realization. The benefit of deferral is thus perfectly eliminated. Note the assumption that the asset grows at the riskless rate. This is something that the retrospective tax is criticized for, but Kaplow's finding that all capital taxes only tax the risk-free return questions the applicability of such criticism.[184]

Auerbach's proposal is a retrospective capital income tax. But, as has been the general theme of this paper, a retrospective wealth tax is possible as well. Under certain assumptions a yearly fixed-rate wealth tax on an asset held for some period is equivalent to a simple tax collected at the date of disposition equal to the number of years the asset was held multiplied by the desired annual wealth tax rate.[185] Though a more complicated mathematical proof exists, the intuitive reasoning for this finding is simple. If an asset is held for some period, under a yearly wealth tax a certain amount is taxed at some wealth tax rate; for example, if an asset is worth $100 and the wealth tax rate is 5% then the government will take $5 from the taxpayer. Each year the asset grows according to some rate, which we can take to be the riskless rate for simplicity. But the future value of the amount taken from said taxpayer, $5 in the example, also grows at that riskless rate such that in any future period the amount which the taxpayer paid as a wealth tax in prior years will still be a percent of the asset's total equal to the wealth tax rate. What this means is that instead of imposing an annual wealth tax the government could simply levy a tax of the desired wealth tax rate multiplied by the holding period upon disposition, thereby avoiding any valuation or liquidity issues since "valuation" occurs automatically upon disposition.[186]

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[180] Auerbach, *supra* note 158. *See also* Marco Sahm, *Imitating Accrual Taxation on a Realization Basis*, 23 JOURNAL OF ECONOMIC SURVEYS 734 (2009); Noel B. Cunningham, *Observations on Retrospective Taxation*, 53 Tax L. Rev. 489 (2000).

[181] Auerbach, *supra* note 158 at 167.

[182] *Id*. at 168; William Vickrey, *Averaging of Income for Income-Tax Purposes*, 47 THE JOURNAL OF POLITICAL ECONOMY 379 (1939).

[183] Auerbach, *supra* note 158, at 145.

[184] Kaplow, *supra* note 49, at 793.

[185] *Morgan Cash Flows*, *supra* note 5, at 4. Mathematically, $T = P_s s \tau_W$ where T is the total tax owed, P_s is the price of the sale, and τ_W is the applicable wealth tax rate. A key assumption is that external funds can be used to settle any tax liability.

[186] *Id*. at 4-5. Somewhat similarly to the proof in Kaplow, *supra* note 49, for the wealth tax and accrual-based capital income tax equivalence, the taxpayer can be thought of here as giving a portion of the asset over to the government, or selling off τ_W% of the asset which then gets immediately purchased by the government, each year. In either scenario aggregate demand and supply of assets remains the same.

Retrospective wealth taxes can be effective solutions to the drawbacks of both accrual and realization. Taxes are calculated and a burden imposed as if accrual taxation were in place, while the burden is only payable upon realization according to the final disposition price. Hence there is no valuation or liquidity problem. There is likewise no benefit to deferral – this was the seminal contribution of Auerbach, which holds true for the retrospective wealth tax as well.[187] Like any system, retrospective taxation is not perfect. There are some drawbacks, such as the ability of taxpayers to engage in wash-sales, but this only holds true under imperfect market conditions. Leaving aside questions of retrospective taxation, the outcome of the capital tax reform debate likely hinges on administrability: a first-order consideration under any tax system. Much more work needs to be done on that front, and most of the discussion will ultimately depend on the exact architecture of the laws as proposed and adopted. However, the way that the issue has been presented – as one between wealth and income taxation – does not capture the real underlying debate happening in terms of tax policy. Should Congress decide to tax accumulated savings heavily or lightly, it may do so under both an income or wealth tax to broadly similar effect.

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[187] Auerbach, *supra* note 158; *Morgan Cash Flows*, *supra* note 5.