REDUCING INEQUALITY WITH A RETROSPECTIVE TAX ON CAPITAL

*James Kwak**

Inequality in the developed world is high and growing: in the United States, 1% of the population now owns more than 40% of all wealth. In Capital in the Twenty-First Century, *economist Thomas Piketty argues that inequality is only likely to increase: invested capital tends to grow faster than the economy as a whole, causing wealth to concentrate in a small number of hands and eventually producing a society dominated by inherited fortunes. The solution he proposes, an annual wealth tax, has been reflexively dismissed even by supporters of his overall thesis, and presents a number of practical difficulties. However, a retrospective capital tax—which imposes a tax on the sale of an asset based on its (imputed) historical values—can reduce the rate of return on investments and thereby slow down the growth of wealth inequality. A retrospective capital tax mitigates or avoids the administrative and constitutional problems with a simple annual wealth tax and can reduce the rate of return on capital more effectively than a traditional income tax. This Article proposes a revenue-neutral implementation of a retrospective capital tax in the United States that would apply to only 5% of the population and replace most existing taxes on capital, including the estate tax and the corporate income tax. Despite conventional wisdom, there are reasons to believe that such a tax could be politically feasible even in the United States today.*

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* Associate Professor and William T. Golden Scholar, University of Connecticut School of Law. I would like to thank Daniel Hemel, Richard Kay, Willajeanne McLean, Peter Siegelman, and Stephen Utz for their suggestions and encouragement, and the editors of the *Cornell Journal of Law and Public Policy* for their editorial assistance.

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INTRODUCTION

Don Draper and Roger Sterling are both handsome, impeccably dressed, and very, very rich.[1] But they came by their money in completely different ways. Don is the proverbial self-made man, the bastard son of a prostitute who climbed to the top of the advertising industry through pluck, hard work, and an enormous amount of talent. Roger inherited both his share of the partnership where they work and his major account from his father, and his main skill seems to be lavishly entertaining clients.

Don and Roger are business partners and (usually) good friends. But in the contest between inheritance and merit—here referring to ability and effort, not moral rectitude—Don's side seems to be winning. Over the course of the 1960s, Don grows in importance from a valuable employee to the dominant partner at the firm, while Roger loses his status as chief rainmaker to Pete Campbell and sees his wealth sliced into pieces by successive divorces. (A scion of old New York aristocracy who now must work for a living, a relentless striver driven by raw ambi-

[1] *Mad Men* (AMC television broadcast 2007–2015).

tion, Pete symbolizes all by himself the decline of inherited privilege and the rise of earned income.) In 1960s America—as seen through the lens of *Mad Men*—the old hierarchy of birth is giving way to a new order based on talent and hard work.[2] "I always envied that—the way you were always reaching," Roger says to Don one evening over drinks. "I always envied [that] you didn't have to," Don responds. "In another lifetime I'd have been your chauffeur."[3]

Everyone knows we live in an unequal society. In the United States, the "1%," made famous by Occupy Wall Street, take home more than 20% of all income[4] and own more than 40% of all household wealth.[5] How we see these outcomes, however, depends on their underlying cause. Many people look more favorably on inequality resulting from ability and effort than inequality resulting from inheritance. In this respect, the worldview of *Mad Men* is fundamentally meritocratic—and optimistic.

If the 1960s belonged to Don, however, the future belongs to Roger—who, despite his divorces and his expensive lifestyle, never seems to run out of cash, and probably becomes richer than ever when the agency is sold to McCann Erickson.[6] This is the central argument that Thomas Piketty makes in *Capital in the Twenty-First Century*. Piketty's empirical research indicates that throughout most of history, invested wealth has grown faster than the overall economy; he projects that the same relationship will hold in the future.[7] (The 1960s actually were an exception, thanks to high economic growth, high taxes, and low interest rates[8]—a rare opportunity for people like Don Draper to join Roger Sterling at the pinnacle of American society.) Inequality[9] of wealth will increase as a logical consequence as the richest families—who can afford to save most of their investment returns—watch their fortunes grow faster than the aggregate wealth of society.[10] Or, as a wealthy friend said to me apologetically, "Once you have a lot of money,

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[2] As if to drive the point home, Roger's mother leaves most of her assets to zoo animals. *Mad Men: The Doorway* (AMC television broadcast Apr. 7, 2013).

[3] *Mad Men: Time & Life* (AMC television broadcast Apr, 26, 2015).

[4] Facundo Alvaredo et al., *United States*, THE WORLD TOP INCOMES DATABASE, http://topincomes.parisschoolofeconomics.eu/#Country:United%20States (last visited Apr. 17, 2015). Income includes capital gains.

[5] Emmanuel Saez & Gabriel Zucman, *Wealth Inequality in the United States Since 1913: Evidence from Capitalized Income Tax Data* tbl.1 (Nat'l Bureau of Econ. Research, Working Paper No. 20625, 2014), http://gabriel-zucman.eu/files/SaezZucman2014.pdf.

[6] *Mad Men: Waterloo* (AMC television broadcast, May 25, 2014).

[7] *See* THOMAS PIKETTY, CAPITAL IN THE TWENTY-FIRST CENTURY 20–21 (Arthur Goldhammer trans., 2014).

[8] *See id.* at 355–56.

[9] *See id.* at 1–35.

[10] *See id.* at 10.

it's like you're in a rocket ship that takes off. You just can't help reaching escape velocity."

How can we prevent the continual growth of inequality and the eventual domination of society by inherited wealth? One implication of Piketty's analysis is that policies that seek to promote equality of opportunity—investing in education, for example—are unlikely to stem the tide. If the rate of return on invested wealth exceeds the rate of economic growth in the long term, high levels of inequality are inescapable. Piketty recommends a global, annual wealth tax, with higher rates for the largest fortunes, in order to slow down the rate at which wealth accumulates.[11] This proposal, however, has been one of the least well-received parts of *Capital in the Twenty-First Century*, roundly criticized as administratively unworkable, economically misguided, politically impossible, or unconstitutional (in the United States).[12] Many of these criticisms have some merit. But this does not mean that we should simply give up.

This Article takes up the challenge of identifying a tax system that can slow down the process of wealth concentration. After considering various alternatives—including an annual wealth tax—I recommend a retrospective capital tax, which imposes tax liability when cash is received from investments while approximating the economic impact of a wealth tax. I provide a detailed proposal, including thresholds and tax rates, to show how this retrospective tax can replace most existing taxes on capital (the estate tax, the corporate income tax, and most individual taxes on investment income) while maintaining the current overall tax burden.[13]

This Article is part of the response by the legal academy to the issues raised by Piketty's work and to the problem of rising inequality in general. Many legal scholars have written short-form responses to or book reviews of *Capital in the Twenty-First Century*.[14] There have been fewer articles focusing on how the law can address the problem of continuing wealth accumulation highlighted by the book. Shi-Ling Hsu has

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[11] *Id.* at 515–17.

[12] *See infra* Part II.

[13] *See infra* Part V.D.

[14] *See, e.g.*, David Singh Grewal, *The Laws of Capitalism*, 128 HARV. L. REV. 626 (2014) (reviewing THOMAS PIKETTY, CAPITAL IN THE TWENTY-FIRST CENTURY (2014)); Samuel Moyn, *Thomas Piketty and the Future of Legal Scholarship*, 128 HARV. L. REV. F. 49 (2014); Neil H. Buchanan, *Thomas Piketty's Book Is Masterful and Important, but Ultimately a Sideshow*, JOTWELL (July 8, 2014), http://tax.jotwell.com/thomas-pikettys-book-is-masterful-and-important-but-ultimately-a-sideshow; Kent D. Schenkel, *Trusts and Estates Law and the Question of Wealth Distribution*, JOTWELL (July 8, 2014), http://trustest.jotwell.com/trusts-and-estates-law-and-the-question-of-wealth-distribution/; Daniel Shaviro, *The Return of Capital*, JOTWELL (July 8, 2014), http://tax.jotwell.com/the-return-of-capital/; Michael J. Zimmer, *(Re)Booting the Dismal Science*, JOTWELL (July 8, 2014), http://worklaw.jotwell.com/rebooting-the-dismal-science/.

described how existing legal institutions contribute to inequality by favoring investors and increasing their returns on capital.[15] Joseph Bankman and Daniel Shaviro have provided the most in-depth analysis of the insights that tax theory can add to Piketty's work.[16] This Article discusses some of the issues raised by Bankman and Shaviro, but proceeds to offer a specific tax proposal that is informed by those perspectives. This Article is also, as far as I am aware, the first that applies a particular system of retrospective taxation—originally conceived by Alan Auerbach[17]—to the specific problem of increasing wealth inequality and that estimates a set of parameters with which that system could replace most existing taxes on capital.

Part I summarizes why our current economic system is likely to produce increasing levels of inequality. Part II evaluates Piketty's proposed annual wealth tax and identifies its most important practical failings. Part III reviews some principles of tax theory that are necessary to understand how different taxes can affect returns to capital. Part IV considers and rejects the idea of using income taxes to stem the growth of inequality. Part V explains how a retrospective capital tax could work and proposes an implementation for the United States with details on thresholds, marginal rates, and taxes that would be replaced. Part VI concludes by arguing that, while admittedly unlikely in the short term, a retrospective capital tax is within the realm of political possibility.

I. THE PROBLEM

Inequality in developed countries is at heights last seen in Old Regime France or Victorian England. In the United States, the top 10% of households claim almost half of all national income, with the top 1% taking home one-fifth—about the same as the bottom 50%.[18] These levels of income concentration have existed only once before in American history, just before the Crash of 1929.[19] Wealth inequality is even more extreme than income inequality. In the United States, the top 10% of households own more than three-quarters of all wealth.[20] The picture

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15 *See* Shi-Ling Hsu, *The Rise and Rise of the One Percent: Considering Legal Causes of Wealth Inequality*, 64 EMORY L.J. ONLINE 2043 (2015), http://law.emory.edu/elj/_documents/volumes/64/online/hsu.pdf.

16 Joseph Bankman & Daniel Shaviro, *Piketty in America: A Tale of Two Literatures*, 68 TAX L. REV. 453 (2015); *see also* Liam Murphy, *Why Does Inequality Matter?: Reflections on the Political Morality of Piketty's* Capital in the Twenty-First Century, 68 TAX L. REV. 613 (2015).

17 *See infra* Part V.B.

18 *See* PIKETTY, *supra* note 7, at 249 tbl.7.3.

19 *See id.* at 299–300.

20 Saez & Zucman, *supra* note 5, at tbl.1.

is similar in Europe, where the top 10% claim more than one-third of all income and hold three-fifths of all wealth.[21]

More worryingly, Piketty argues, global inequality is only likely to increase. On the one hand, the rate of economic growth, abbreviated as *g*, should decline from the high levels of recent decades for two reasons. First, population growth should fall as developing countries transition to lower birth rates.[22] Second, the growth rate of per capita output—the amount that the average person produces—will probably fall as emerging economies move through the "catch-up" phase of development and adopt the technologies used in advanced economies.[23] Since economic expansion requires either more people or more output per person, *g* is likely to fall below 2% over the course of this century.[24]

On the other hand, the rate of return on capital—the annual amount that people earn from investments in real estate, financial instruments, privately-held businesses, artwork, and other forms of wealth,[25] abbreviated as *r*—has exceeded 4% per year in every historical era for which reasonable data exist, including recent decades.[26] A variety of factors, including legal institutions that favor returns on capital,[27] seem to ensure that the pre-tax rate of return on capital will remain around 4% to 5%.[28] However, it will be difficult for advanced economies to sustain annual growth that exceeds 2%.[29]

In the usual state of affairs, then, $r > g$. This inequality has held throughout most of human history except for the past 100 years, and it is likely to be true in the near future as economic growth slows.[30] The logical implication is that very rich people will get richer relative to everyone else: if I have a slice of a pie, and my slice is growing at a faster rate than the pie as a whole, then my share of the pie must also be grow-

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21 PIKETTY, *supra* note 7, at 248–49 tbls.7.2 & 7.3.

22 *See id.* at 79.

23 *See id.* at 93–95. The only sustained growth rates of per capita output above 2% per year have been in regions that were rebuilding after World War II or were adopting technologies that already existed in more advanced economies. *See id.* at 94 tbl.2.5. Productivity growth slows when a country reaches the technology frontier because better technologies must then be invented rather than imported. *See id.* at 93.

24 *See id.* at 356–57.

25 "Wealth" and "capital" are near synonyms. Wealth denotes the assets that someone owns, while capital refers to those assets as a source of income. *See id.* at 48. The main substantive difference between the two is personal property that does not generate income; however, for very rich households, that personal property makes up a small fraction of total wealth. *See id.* From the household perspective, business capital such as factories or intellectual property appears as equity in those businesses. *See id.*

26 *See id.* at 354.

27 *See* Hsu, *supra* note 15.

28 *See* PIKETTY, *supra* note 7, at 361.

29 *See id.* at 94.

30 *See id.* at 358.

ing. People who own large amounts of capital—enough to save most of their investment income—will control an increasing share of societal wealth, while everyone else will be left with a diminishing share. This process of divergence is mitigated by various factors, such as the division of estates among multiple children; but the larger the gap between *r* and *g*, the higher the equilibrium level of inequality.[31] This is why, Piketty warns, we may be returning to a society dominated by inherited wealth, similar to societies of nineteenth century Europe, in which inequality is determined primarily by the fortunes of birth rather than the distribution of talent and effort.[32]

The remainder of this Article considers various tax policies that might reduce the gap between *r* and *g* and counteract this trend toward increasing wealth concentration. First, however, we should ask: What if Piketty is wrong? What if the period from 1914 to 1980—in which war, communist revolution, and high taxes depressed returns to capital, reducing wealth inequality—is the norm, rather than the periods of high inequality before and since?

There are several answers to this question. Assuming that few people look forward to war or communist revolution, proactive government action will be necessary to reduce the profitability of investments. Taxes on capital, such as those considered here, are precisely the means by which a "norm" of moderate inequality can be maintained. As Daron Acemoglu and James Robinson have argued, supposed general laws of capitalism, such as $r > g$, are themselves the product of political and institutional contexts.[33] If *r* does not exceed *g* over the next two centuries, that outcome will most likely result from changes in the institutional context—such as new taxes. In other words, *r* may not turn out to be greater than *g*, but that will result from policies that reduce *r* or increase *g*.[34] In sum, although Piketty and other scholars[35] have documented contemporary income and wealth inequality in unprecedented detail, they have largely confirmed something that many people have already sensed; society is becoming more unequal and ordinary people do not seem bet-

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31 *See id.* at 361–66.

32 *See id.* at 424–29; *see also* Eric M. Zolt, *Inequality in America: Challenges for Tax and Spending Policies*, 66 TAX L. REV. 641, 645–46 (2013) (arguing that many people are more willing to tolerate inequalities based on talent, effort, or risk-taking than inequalities based on birth or opportunity). *But see* James Kwak, *Do Smart, Hard-Working People Deserve to Make More Money?*, BASELINE SCENARIO (Nov. 2, 2009), http://baselinescenario.com/2009/11/02/smart-hard-working-people/.

33 Daron Acemoglu & James A. Robinson, *The Rise and Decline of General Laws of Capitalism*, 29 J. ECON. PERSPECTIVES 3, 11–12 (2015).

34 The point of Piketty's proposed wealth tax is precisely to prove himself "wrong" about his predicted rise in inequality by reducing *r*.

35 *See, e.g.*, Saez & Zucman, *supra* note 5, at tbl.1.

ter off as a result.[36] Whatever the underlying mechanism, the trend is toward greater concentration of wealth—an outcome that many people find undesirable, regardless of their opinions about r and g.[37] In this context, we should ask whether and how tax policy can reduce the risk that our grandchildren will live in a world that is largely owned by Roger Sterling's descendants.

II. AN ANNUAL NET WEALTH TAX

To prevent this outcome, Piketty proposes a global, annual wealth tax at a rate of 1% of net worth[38] between 1 million and 5 million euros, 2% from 5 million to 1 billion euros, and something higher above 1 billion euros.[39] Net worth is calculated as of a specific date (say, December 31), and the tax is due on a later date (say, April 15). "[W]ithout a global tax on capital or some similar policy," Piketty argues, "there is a substantial risk that the top centile's share of global wealth will continue to grow indefinitely."[40] The intuition behind this proposal is simple. An annual 2% tax on net assets should reduce r by 2 percentage points: if the pre-tax rate of return on capital is about 4%, then the after-tax rate of return will be about 2%[41]—only a little higher than the long-term economic growth rate.

Virtually every response to *Capital in the Twenty-First Century* mentions the wealth tax and immediately writes it off as hopelessly unrealistic.[42] Most critics barely bother explaining why a wealth tax "isn't going to happen."[43] The most common complaints are the difficulty of reaching global agreement on any subject,[44] the possibility that a national

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36 For example, real median household income in the United States in 2013 was below its 1989 level and only 8.6% above its average level in the 1970s; this indicates an annual growth rate of only 0.2% per year. *See* U.S. CENSUS BUREAU, U.S. DEP'T OF COMMERCE, P60-249, INCOME AND POVERTY IN THE UNITED STATES: 2013, at 23 tbl.A-1 (2014).

37 *See* Buchanan, *supra* note 14 ("[W]ithout Piketty's book, we would still have more than enough evidence that we should be increasing taxes on the rich.").

38 Assets minus liabilities.

39 *See* PIKETTY, *supra* note 7, at 517.

40 *Id.* at 519.

41 Assume an asset is worth $100 and pays 4% interest, or $4, per year. Each year the holder of the asset must pay $2 in tax, so the after-tax return is only $2, or 2%. (The exact impact depends on whether the tax is assessed on the asset's beginning-of-year value or on its value including returns during the year.)

42 The author himself calls it "utopian" in its proposed form. *See* PIKETTY, *supra* note 7, at 515. *But see* S. Douglas Hopkins, *Replacing Investment Income Taxes with an Annual Wealth Tax*, 147 TAX NOTES 1305, 1306 (2015) (arguing that a wealth tax could be a viable response to the issues raised by Piketty).

43 *See* John Cassidy, *Forces of Divergence*, THE NEW YORKER (Mar. 31, 2014), http://www.newyorker.com/arts/critics/books/2014/03/31/140331crbo_books_cassidy.

44 *See id.* ("[T]he nations of the world can't agree on taxing harmful carbon emissions, let alone taxing the capital of their richest and most powerful citizens.").

wealth tax could cause people and assets to emigrate,[45] the difficulty of administering a tax on something that is not systematically measured today,[46] and the political unpopularity of new taxes[47]—a problem intensified by the possibility that a wealth tax in the United States could be unconstitutional.[48]

Although these problems are often exaggerated, they are serious enough to raise doubts about the practical viability of an annual wealth tax. In this Part of the Article, I divide these issues into three categories: administration, international coordination, and constitutionality (in the United States). I defer the economic effects of a wealth tax (or any tax on capital) until Part III.D and the political feasibility of raising taxes on the rich until Part VI.

A. Administration

An annual wealth tax faces some significant administrative challenges. One issue is identifying the tax base, since the government currently does not know who owns what. A second challenge is accurately valuing certain types of assets, such as closely-held businesses or unusual real estate holdings. A third commonly cited problem is liquidity: if a taxpayer owes tax simply for owning an asset—without receiving any cash from it—the taxpayer may not be able to pay the tax.

1. Identification

To be truly comprehensive, a wealth tax requires a catalog of all valuable assets, including Renaissance paintings displayed in the family castle. Otherwise, some forms of wealth will escape taxation. In addition, people will have an incentive to buy assets that are either excluded from the tax or more easily hidden from fiscal authorities, distorting their

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45 *See* Peter Coy, *An Immodest Proposal: A Global Tax on the Superrich*, BLOOMBERG BUSINESSWEEK (Apr. 10, 2014), http://www.bloomberg.com/bw/articles/2014-04-10/thomas-pikettys-global-tax-on-capital-may-not-be-a-crazy-idea ("Even if Congress did pass a wealth tax, the IRS would have trouble collecting because the wealthy might transfer title to their assets abroad.").

46 *See* James K. Galbraith, Kapital *for the Twenty-First Century?*, 61 DISSENT 77, 81 (2014), http://www.dissentmagazine.org/article/kapital-for-the-twenty-first-century ("[I]n a world where only a few countries accurately measure high incomes, it would require an entirely new tax base, a worldwide Domesday Book recording an annual measure of everyone's personal net worth.").

47 *See* Robert M. Solow, *Thomas Piketty Is Right*, NEW REPUBLIC (Apr. 22, 2014), http://www.newrepublic.com/article/117429/capital-twenty-first-century-thomas-piketty-reviewed ("On this side of the Atlantic, there would seem to be no serious prospect of such an outcome. We are politically unable to preserve even an estate tax with real bite.").

48 *See* James Wetzler, *Thomas Piketty's Wealth Tax Proposal Has Huge Problems*, NAT'L REV. (Mar. 27, 2014), http://www.nationalreview.com/agenda/374380/thomas-pikettys-wealth-tax-proposal-has-huge-problems-james-wetzler.

investment choices. This is a significant challenge, but its scope is easily exaggerated.

This problem has already been addressed for a large proportion of existing wealth: real property, which makes up over 40% of gross household assets (not deducting liabilities) in the United States.[49] In order to ensure secure legal rights to property, real estate ownership is documented in a central registry, which can then be used to assign property tax liabilities.[50] The next category, at over 30% of gross wealth, is financial assets such as bank accounts, securities, mutual funds, and life insurance policies.[51] Taxpayers are already obligated to report income from these assets, and in general, they are held through regulated financial institutions, which could be required to report asset stocks as well as income flows to the tax authorities.[52] Over 20% of household wealth is equity in unincorporated businesses (partnerships, LLCs, etc.) or in personal trusts.[53] These entities have their own tax filing requirements, regardless of their ownership structure;[54] these requirements could be extended as necessary to disclose the ultimate equity owners of those entities. It is true that, in some cases, the natural person who owns an asset may be hidden by one or more shell companies.[55] If it turns out to be impossible to identify the true owner, the wealth tax can be levied on one of the shell companies, which must pay the tax or forfeit the asset.[56]

Less than 2% of household wealth consists of miscellaneous assets such as precious metals, jewelry, antiques, musical instruments, or artwork, for which no systematic records may exist today.[57] The government could introduce a registry for all such assets with a value above some threshold. Items on the registry would be subject to a wealth tax. An individual could decline to register an asset, but if the asset were ever sold, the proceeds would be subject to a retrospective tax based on a

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49 *See* Edward N. Wolff, *Recent Trends in Household Wealth in the United States: Rising Debt and the Middle-Class Squeeze—an Update to 2007*, at 47 (Levy Econ. Inst. of Bard College, Working Paper No. 589, 2010), http://www.levyinstitute.org/pubs/wp_589.pdf.

50 If the legal owner of the property is a company that does not currently disclose its owners, either the wealth tax could be levied on that company, or the company could be required to disclose its owners.

51 *See* Wolff, *supra* note 49, at 47.

52 I defer international reporting issues until the following section.

53 *See* Wolff, *supra* note 49, at 47.

54 For example, even though partnerships do not pay taxes directly—their income is "passed through" to the partners' individual tax returns—they still must file tax returns. *See Partnership*, LEGAL INFO. INST., https://www.law.cornell.edu/wex/partnership (last visited Apr. 5, 2015).

55 *See, e.g.*, Louise Story & Stephanie Saul, *Hidden Wealth Flows to Elite New York Condos*, N.Y. TIMES (Feb. 8, 2015), http://www.nytimes.com/2015/02/08/nyregion/stream-of-foreign-wealth-flows-to-time-warner-condos.html.

56 For a progressive wealth tax, the tax should be levied on intermediate entities at the highest marginal rate.

57 *See* Wolff, *supra* note 49, at 47.

punitive calculation.[58] This penalty should induce most people to register assets that they might sell in the future.

2. Valuation

Even if the identification problem can be solved, however, there is still a valuation problem. This is a significant issue, although its importance varies across different asset classes. David Shakow and Reed Shuldiner have estimated that 66% of the assets that would probably be subject to a wealth tax are easy to value, including real estate and most financial instruments, while less than 8% are difficult to value, primarily equity in some noncorporate businesses.[59] Real property is already subject to annual valuations for property tax purposes. Although these valuations are imperfect,[60] we are willing to accept them despite their enormous importance to local government finances.[61] Publicly-traded stocks, mutual fund shares, exchange-traded fund shares, and many fixed income securities have daily market prices that could easily be used for a wealth tax.

Other types of financial assets present potential valuation challenges, however (despite being included in Shakow and Shuldiner's "easy" category).[62] Less liquid securities require periodic valuation by financial institutions that hold them on their balance sheets. However, these valuations can be highly subjective, especially for "Level 3" assets for which value is calculated from inputs that cannot be observed in the market.[63] More esoteric investment vehicles such as hedge funds and private equity funds are valued quarterly or monthly for reporting to in-

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58 For example, the tax could assume that the taxpayer had held the asset for a long time and that, throughout that period, it had been worth its final sale price. Sales of miscellaneous assets are already subject to capital gains tax, so any incentive to hide the sale already exists today.

59 *See* David Shakow & Reed Shuldiner, *A Comprehensive Wealth Tax*, 53 TAX L. REV. 499, 529 (2000). *But see* James R. Repetti, Commentary, *It's All About Valuation*, 53 TAX L. REV. 607, 611–12 (2000).

60 *See* Repetti, *supra* note 59, at 611.

61 Property taxes average between 0.5% and 1% of gross real estate value. Benjamin H. Harris & Brian David Moore, *Residential Property Taxes in the United States*, TAX POL'Y CTR. (Nov. 18, 2013), http://www.taxpolicycenter.org/publications/url.cfm?ID=412959. This is the same order of magnitude as Piketty's proposed wealth tax. Because property taxes are levied on gross real estate value, their dollar impact is comparable to that of a wealth tax with a higher tax rate.

62 *See* Shakow & Shuldiner, *supra* note 59, at 529.

63 *See* Mark Gongloff, *A FAS 157 Primer*, WALL ST. J. (Nov. 15, 2007), http://blogs.wsj.com/marketbeat/2007/11/15/a-fas-157-primer/. Concerns that financial institutions were overvaluing "toxic assets" to hide losses helped fuel the financial crisis of 2007–2009. *See* Marc Jarsulic, *The Origins of the U.S. Financial Crisis of 2007: How a House-Price Bubble, a Credit Bubble, and Regulatory Failure Caused the Greatest Economic Disaster Since the Great Depression*, *in* THE HANDBOOK OF THE POLITICAL ECONOMY OF FINANCIAL CRISES 21, 33–35 (Gerald A. Epstein & Martin H. Wolfson eds., 2013).

vestors and for tax purposes. Still, the Bernie Madoff and other scandals indicate that such valuations may not always be trustworthy.[64] The valuation problem is most significant for privately-held businesses, since their value for accounting and income tax purposes may vary significantly from fair market value, and for miscellaneous assets such as artwork. There are possible solutions, but they are not perfect. For example, all nonpublic businesses with book value above some threshold could be required to undergo a periodic appraisal.[65] These valuations could easily be skewed, however, especially if they are paid for by the firm being valued.

For these reasons, it may not be feasible to administer a wealth tax that relies on current asset values. The process of valuing assets without market prices itself is costly. For some asset classes, such as real estate, a periodic appraisal, incremented according to an index in intervening years, might be sufficient. However, this would not be appropriate for privately-held businesses, which are among the most difficult assets to value. Taxpayers would attach extreme importance to valuations under an annual wealth tax, and would thus have greater incentive to engage in tax avoidance schemes, litigate over appraised values, or shift wealth into asset classes that are harder to value. Subjective valuations of illiquid securities could become even more subjective. Taxpayers could shift assets into complex ownership structures that qualify for valuation discounts and require careful examination by appraisers and, ultimately, courts.[66] Local property taxes, capital gains taxes, and estate taxes already create an incentive to contest valuations, but an annual wealth tax would significantly increase the stakes, resulting in a volume of litigation that would increase overall transaction costs[67] and potentially create a situation in which a person's taxes depend on the ability to hire good lawyers. Finally, the opportunity to obtain favorable valuations would give taxpayers an additional reason to hold illiquid assets, distorting their investment decisions.

3. Liquidity

An annual wealth tax may require taxpayers to pay taxes with cash that they do not have on hand, but this is unlikely to be a major problem. Most wealth is held in real estate and financial instruments. Many finan-

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64 *See* Diana B. Henriques, *Madoff Scheme Kept Rippling Outward, Across Borders*, N.Y. TIMES (Dec. 19, 2008), http://www.nytimes.com/2008/12/20/business/20madoff.html.

65 Many private corporations already obtain "409A valuations," which determine a fair market value for each share of stock. These valuations enable corporations to demonstrate that the stock they offer in option plans or restricted stock plans is priced at market value, as required by the IRS.

66 *See* Repetti, *supra* note 59, at 612–14.

67 *See id.* at 610.

cial assets can be liquidated easily,[68] and others can be sold at a modest discount or with timing constraints.[69] Taxpayers can often borrow against the value of their financial assets; for example, participants in employer-sponsored retirement plans can borrow from their accounts. Asset management firms are happy to lend money to their wealthy clients. There is already an enormous industry devoted to real estate lending.

The liquidity problem is most likely to arise in a few specific contexts. One is if a taxpayer primarily owns real estate but is unable to borrow against that property, perhaps because of poor credit. Most of these situations can be avoided as long as the annual wealth tax has a significant exemption amount, such as $1 million; most people above this threshold do not have their wealth tied up in real estate and have considerable borrowing capacity. Another possibility is the rare case of a taxpayer whose wealth is overwhelmingly tied up in a single nonpublic business and who is unable to borrow against the value of that business.[70] Even here, administrative solutions are possible. For example, the government could lend the taxpayer the money to pay taxes in exchange for a security interest in the illiquid asset.

In summary, the identification and liquidity challenges facing an annual net wealth tax can probably be solved. However, accurately valuing the assets in the wealth tax base would at best be expensive and complicated, and at worst give rise to increased tax avoidance, litigation, and outright fraud.

B. International Coordination

There is no governmental body capable of imposing a global wealth tax, and it is unlikely that the world's major economies could agree on a coordinated tax policy in the near future. Practically speaking, the most

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68 For example, shares in open-ended mutual funds can be redeemed at net asset value; exchange-traded securities and shares in exchange-traded funds can be sold quickly at fair market prices.

69 Less liquid securities (e.g., many fixed income securities) can be sold to dealers at modest bid-ask spreads; hedge funds usually offer liquidity with some constraints; and even relatively illiquid interests, such as participations in private equity funds, can be traded in secondary markets.

70 The estate tax should cause much greater liquidity issues for family-owned businesses than an annual wealth tax because the estate tax is levied at much higher rates. Yet, according to the Congressional Budget Office, if the estate tax exclusion had been $3.5 million and the tax rate had been 48%, at most 41 estates filing estate tax returns in 2000 would have qualified for the family-owned business interest deduction, and these estates would have had insufficient liquid assets to pay their estate taxes. *See* CONG. BUDGET OFFICE, EFFECTS OF THE FEDERAL ESTATE TAX ON FARMS AND SMALL BUSINESSES 13–15 (2005), http://www.cbo.gov/sites/default/files/cbofiles/ftpdocs/65xx/doc6512/07-06-estatetax.pdf. In fact, in 2015, the exclusion is $5.43 million and the top tax rate is 40%, so the number of estates with this problem is even smaller.

that could be envisioned is a wealth tax in a single country such as the United States or a federation such as the European Union.[71] Accordingly, the wealth targeted by the tax might escape to another jurisdiction. In this section, I consider the problems that the United States would encounter in enforcing a wealth tax, which any other large jurisdiction would share.

In principle, the United States can tax all wealth held by its residents, regardless of where their assets are held. This presents two practical difficulties. First, even if residents are legally obligated to report all of their assets, they could hide assets in foreign countries where they would be difficult for tax authorities to find. Second, at some level of wealth taxation, very rich people might escape the tax by changing their country of residence.

Analogous problems already affect existing tax systems. In theory, the United States currently taxes all its residents' income, regardless of where it is earned.[72] Still, some capital income currently evades taxation at the levels mandated by U.S. law. Certain categories of income are excluded from the ordinary rules, such as capital gains on U.S. assets earned by some foreign investors (which motivates U.S. residents to pose as foreign investors).[73] Businesses often succeed in attributing income to tax haven countries without ever incurring the taxes they should pay under the U.S. system.[74] In addition, individuals can hide income-producing assets in jurisdictions that do not report income to U.S. authorities.

These challenges have potential, but imperfect, solutions. International tax evasion could be solved through better information-sharing, but some jurisdictions have a vested interest in preserving their reputation for secrecy. Countries that are unwilling to participate in information-sharing agreements could be designated as tax havens, and source countries (those where capital income is generated) could impose high withholding rates on income sent to entities in tax havens.[75] Unfortunately, such solutions require a degree of international coordination that has not yet been achieved. The United States can take some steps unilat-

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71 *See* PIKETTY, *supra* note 7, at 527–30 (suggesting a European wealth tax as a possible step toward a global wealth tax).

72 *See* Julie A. Roin, *Can Income from Capital Be Taxed? An International Perspective*, *in* TAXING CAPITAL INCOME 211, 212 (Henry J. Aaron et al. eds., 2007). Since other countries generally tax income earned within their borders, the United States allows a tax credit for income taxes paid to other countries. *See id.* The same approach could be adopted for a wealth tax: if a U.S. resident pays a wealth tax to a foreign country for assets held in that country, those payments could be credited against wealth taxes due to the United States.

73 *See id.* at 213–14.

74 *See id.* at 216–21.

75 *See id.* at 222–24. Most income-producing assets held in most tax havens (e.g., Cayman Islands, Bermuda) do not generate their income within those jurisdictions.

erally. For example, the Department of Justice's campaign against Swiss banks resulted in a settlement with UBS, guilty pleas by Wegelin and Credit Suisse, billions of dollars in penalties, and disclosure of thousands of accounts owned by American taxpayers.[76] The Foreign Account Tax Compliance Act[77] requires foreign financial institutions to disclose information about American-owned accounts to the Internal Revenue Service, under threat of penalties assessed on those institutions' assets in the United States. Still, smaller institutions without direct exposure to the U.S. financial system could refuse to cooperate. These unilateral measures make it significantly more difficult and risky to evade U.S. taxes, but they are not a complete solution.

The key question here is whether an annual wealth tax would increase or decrease the potential for evasion. In principle, it should be no more difficult to require foreign financial institutions to report asset holdings than to require them to disclose income flows. One category of tax avoidance—exploiting the varying tax treatment of different types of income—would be eliminated by a wealth tax, which does not distinguish among income flows. An annual wealth tax, however, could significantly expand both the types of assets that must be reported and the types of institutions that must do the reporting. In addition, the valuation requirement would create the opportunity for taxpayers to place assets in jurisdictions where valuation practices differ or where it would be difficult for the IRS to investigate a case. On the whole, existing taxes on capital income already face significant international coordination problems, but an annual wealth tax could exacerbate the situation.

Finally, taxpayers could escape a U.S. wealth tax by moving to another country and, if necessary, renouncing their U.S. citizenship. But this is a risk with any tax. Rationally speaking, a taxpayer's decision to emigrate or not should be based on the total amount of expected taxes, not the choice of tax base. An annual wealth tax aimed primarily at large fortunes could be coupled with reductions in other taxes to maintain the same overall tax level.[78] In that case, there is no *a priori* reason to think that a wealth tax would cause more people to emigrate than the current

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76 Peter Lattman, *Swiss Bank Pleads Guilty to Tax Law Violations*, N.Y. TIMES (Jan. 3, 2013), http://dealbook.nytimes.com/2013/01/03/swiss-bank-pleads-guilty-to-tax-law-violations/; Ben Protess & Jessica Silver-Greenberg, *Credit Suisse Pleads Guilty in Felony Case*, N.Y. TIMES (May 19, 2014), http://dealbook.nytimes.com/2014/05/19/credit-suisse-set-to-plead-guilty-in-tax-evasion-case/; Julia Werdigier, *Tax Haven Closes for Wealthy Americans*, N.Y. TIMES (Aug. 30, 2013), http://dealbook.nytimes.com/2013/08/30/tax-haven-closes-for-wealthy-americans/.

77 *See* Pub. L. No. 111-147, 24 Stat. 97 (2010).

78 *See* PIKETTY, *supra* note 7, at 518 (proposing using the wealth tax to raise a modest amount of revenue, although this is not a crucial part of the proposal); *see also* Paul L. Caron, *Thomas Piketty and Inequality: Legal Causes and Tax Solutions*, 64 EMORY L.J. ONLINE 2073, 2083 (2015), http://law.emory.edu/elj/_documents/volumes/64/online/hsu.pdf (proposing, al-

system. Instead, shifting to a wealth tax would give different types of people greater or lesser incentives to relocate. A system with higher taxes on accumulated wealth would cause more people who live off of capital income to emigrate, while encouraging more people who live off their labor not to emigrate.[79] Given the choice, we should prefer to let the people who already amassed (or inherited) their fortunes depart. High net worth reflects past events and is a poor proxy for future productivity. In addition, the very wealthy will most likely continue to invest their assets globally regardless of where they live, so the departure of a rich American should not reduce the capital available for investment in the United States.

C. Constitutionality

An annual wealth tax might violate two clauses of the U.S. Constitution: "Representatives and direct Taxes shall be apportioned among the several States which may be included within this Union, according to their respective Numbers . . . ."[80] "No Capitation, or other direct, Tax shall be laid, unless in Proportion to the Census or Enumeration herein before directed to be taken."[81] The argument is that a wealth tax is a "direct tax" and that, therefore, the amount raised from each state must be proportional to its population. This implies that the average tax rate for each state must be inversely proportional to its average household wealth: the poorer the state, the higher the tax rate. Besides being both morally and politically questionable, this outcome would undermine the purpose of the wealth tax, since the richest taxpayers could reduce their taxes by moving to the richest states.

It is not certain that a wealth tax is unconstitutional (unless apportioned) because no one really knows what a "direct tax" is. In 1895, in *Pollock v. Farmers' Loan & Trust Co.*, the Supreme Court interpreted that phrase to include taxes on real estate and personal property.[82] Even accepting that decision, there are various ways to distinguish a wealth tax. It can be interpreted as a tax on imputed income[83] or as an income tax on the risk-free return and on inframarginal returns (for theoretical

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ternatively, that increased taxes on the wealthy could be aimed at both reducing inequality and reducing budget deficits).

79 People with high wealth may be more likely to emigrate than people who earn high incomes, but this should not be assumed. The people with the highest annual compensation tend to be investment fund managers, bankers, and CEOs of large corporations, many of whom could find employment anywhere in the world.

80 U.S. CONST. art. I, § 2, cl. 3.

81 U.S. CONST. art. I, § 9, cl. 4.

82 158 U.S. 601, 618 (1895).

83 An owner-occupied home, for example, generates imputed income for its owner who lives in it rent-free; taxing the house could be framed as taxing this imputed income.

reasons discussed in Part III.B).[84] A net wealth tax can also be distinguished by the fact that it takes liabilities into account.[85] These arguments are not terribly convincing, however; the availability of alternative framings does not oblige courts to accept them,[86] and an annual wealth tax certainly looks a lot like a tax on real estate and personal property. A Supreme Court following *Pollock* very well might strike it down.

Alternatively, one can argue that the "direct tax" language of *Pollock* was simply wrong and part of a discredited period of judicial history that the Supreme Court has never bothered to explicitly overrule.[87] However, the Court appeared to endorse *Pollock*'s broad definition of direct taxes in *National Federation of Independent Business v. Sebelius* in 2012,[88] making it unlikely that *Pollock* will be overruled anytime soon.[89] An annual wealth tax would face a constitutional challenge with a significant likelihood of success.[90] Barring a constitutional amendment specifically allowing a wealth tax, constitutional uncertainty is a strong argument against attempting to implement such a tax in the United States.[91]

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84 *See* Deborah H. Schenk, *Saving the Income Tax with a Wealth Tax*, 53 TAX L. REV. 423, 441 (2000).

85 A homeowner with a mortgage exceeding the house's value would owe nothing for the house, so the tax does not apply strictly to the ownership of property.

86 *See* John T. Plecnik, *The New Flat Tax: A Modest Proposal for a Constitutionally Apportioned Wealth Tax*, 41 HASTINGS CONST. L.Q. 483, 509 (2014).

87 Bruce Ackerman claims that: the "direct tax" provisions of the Constitution were part of the three-fifths compromise (counting each slave as three-fifths of a free person for representation purposes) that was reversed by the Fourteenth Amendment; that *Pollock* was repudiated by the Sixteenth Amendment; and that *Pollock* was superseded by the New Deal decisions expanding the federal government's powers of taxation. *See* Bruce Ackerman, *Taxation and the Constitution*, 99 COLUM. L. REV. 1, 31, 39, 47 (1999); *see also id.* at 51 (concluding that the Supreme Court would read the direct tax provisions of the Constitution narrowly and allow a tax on net wealth); BRUCE ACKERMAN & ANNE ALSTOTT, THE STAKEHOLDER SOCIETY 123 (1999); Calvin H. Johnson, *Apportionment of Direct Taxes: The Foul-Up in the Core of the Constitution*, 7 WM. & MARY BILL RTS. J. 1 (1998).

88 132 S. Ct. 2566 (2012).

89 *See* Plecnik, *supra* note 86, at 507. The reference to *Pollock* is approving, but historical ("In 1895, we expanded our interpretation . . . ."), so it does not amount to an explicit reaffirmation. *See Sebelius*, 132 S. Ct. at 2598.

90 Joseph Dodge concludes that a wealth tax that reaches real estate and tangible property would be unconstitutional, even under a relatively restrictive interpretation of the phrase "direct tax." Joseph M. Dodge, *What Federal Taxes Are Subject to the Rule of Apportionment Under the Constitution?*, 11 U. PA. J. CONST. L. 839, 933–34 (2009).

91 John Plecnik has proposed a "constitutionally apportioned wealth tax": the federal government would collect a uniform percentage of net wealth from all taxpayers and then return enough of the proceeds to states to make the net amount collected from each state consistent with apportionment. If states pass their wealth tax rebates through to taxpayers, the effective tax rate will be higher in poorer states than in richer states. However, the federal government could provide incentives for states to hold onto their rebates. *See* Plecnik, *supra* note 86, at 511–15. This approach might work, but on the other hand it might not. From the standpoint of state politics, not refunding the wealth tax rebates to households is equivalent to

D. Summary

Piketty's proposed annual net wealth tax is more practical than most reviewers assume, but faces some serious challenges. Although the identification problem could be addressed and the liquidity problem is largely illusory, the annual valuation requirement creates major administrative complications and the corresponding potential for avoidance and contestation. An annual wealth tax complicates the existing problem of international coordination. Finally, in the United States, such a tax could very well be unconstitutional.[92] For these reasons, we should consider alternative tax systems that could reduce the gap between r and g. This will first require a brief detour through tax theory.

III. TAX THEORY INTERLUDE

As other scholars have noted, Piketty's policy recommendations do not take under consideration some of the tax theory literature developed in recent decades, in particular concerning the differences between alternative tax bases such as consumption, income, or wealth.[93] This Part summarizes some key principles that will be useful in evaluating how different tax systems might affect the return on investments and the growth of inequality.

A. Consumption and Income Taxes

The taxation of capital income—income from investments—is a key topic in tax theory and policy particularly because of debates over consumption and income taxes. An ideal income tax is assessed on income from all sources, including both labor income and capital income. Under a consumption tax, by contrast, the tax base is current consumption—the amount spent purchasing goods and services—which equals income (from all sources) minus net savings. If a taxpayer has $100 in labor income but saves $20, then the other $80 is spent on consumption; if labor income is $100 but the taxpayer draws down savings by $20, then $120 is spent on consumption.[94] Under an income tax, the $100 in

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imposing a new state tax. One can easily imagine state politicians returning the cash to taxpayers and forgoing any incentives provided by the federal government.

92 *But see* Hopkins, *supra* note 42, at 1311 ("If a constitutional prohibition can be shown to be economically or morally unjustifiable, then it doesn't deserve our blind obeisance.").

93 *See, e.g.*, Shaviro, *supra* note 14; Bankman & Shaviro, *supra* note 16, at 455–56. Piketty has made several contributions to the literature on the optimal taxation of labor income and discusses some of his findings in *Capital in the Twenty-First Century*. *See* PIKETTY, *supra* note 7, at 509–12.

94 *See* Eric Toder & Kim Rueben, *Should We Eliminate Taxation of Capital Income?*, *in* TAXING CAPITAL INCOME 89, 93 (Henry J. Aaron et al. eds., 2007). This is true whether the tax is implemented as an income tax with a deduction for net savings or as a tax collected at the point of consumption.

labor income is taxed when earned, regardless of savings; but any money saved is exempt from additional taxes in the future, and only earnings on that savings (interest, dividends, etc.) are taxed.[95] If people consume all of their labor income and never accumulate any savings to invest, then a consumption tax and an income tax are identical. It follows that the difference between the two lies in how they treat savings and the return on investments.[96]

An income tax affects returns from savings while a consumption tax does not. Assume that a taxpayer has $100 in labor income but only needs to consume $40 worth of goods and services and invests any surplus in a risk-free, one-year government bond paying 10% interest. Under a 50% consumption tax, in year 1, $40 of consumption uses up $80 of income,[97] leaving $20 to invest in the bond; in year 2, the bond is redeemed for $22,[98] which can pay for $11 of consumption.[99] Under a 50% income tax, in year 1, the taxpayer pays $50 in tax on $100 in income,[100] spends $40 on consumption, and invests $10 in the bond; in year 2, the bond is redeemed for $11,[101] but $0.50 in tax must be paid on $1 of interest income,[102] leaving $10.50 to spend on consumption. Compared to the consumption tax, the income tax reduces the taxpayer's year 2 consumption by $0.50, which is the tax rate of 50% times the investment income of $1. The key difference between the consumption and the income tax is that only the latter affects income from capital.

As a corollary, only an income tax affects an investor's rate of return on capital. In the above example, under the income tax, the taxpayer invests $10, earns a 10% pre-tax return, but pays half of those returns to the government, leaving a 5% after-tax return. Under the consumption tax, the taxpayer invests $20, but only forgoes $10 of consumption in

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95 *See id.*

96 From the household perspective, "savings," "investments," and "capital" are three ways of looking at the same thing. When money is saved, it must go into some asset—a bank account, stocks, real estate, etc. Those assets are all investments that earn returns (which may be negative). Those investments collectively constitute the household's capital. *See* Bankman & Shaviro, *supra* note 16, at 456–58.

97 Of the $80, 50% goes to the consumption tax and 50% purchases actual goods and services. The 50% is a tax-inclusive rate, which is equivalent to a 100% tax-exclusive rate. I use the tax-inclusive rate for two reasons: first, for consistency with the income tax, which is always quoted as a tax-inclusive rate; second, because the consumption tax could be implemented as a (tax-inclusive) tax on labor income with a deduction for net savings.

98 $20 + 10% interest = $22.

99 The consumption tax is $22 x 50% = $11. A simple labor tax at 50% produces the same outcome. In year 1, the taxpayer pays $50 in tax on $100 of income, spends $40 on consumption, and invests $10 in the bond; in year 2, the taxpayer receives $11 for consumption, which is not taxed because it does not represent labor income.

100 $100 x 50% = $50 in income tax.

101 $10 + 10% interest = $11.

102 $1 x 50% = $0.50.

year 1;[103] the next year, the taxpayer earns a 10% pre-tax return on the $20, redeems the bond for $22, and consumes $11 worth of goods and services (after the 50% consumption tax). In effect, the taxpayer earns a 10% after-tax return on the $10 in consumption given up in year 1. Compared to an income tax, this is akin to the government putting up half the money to buy the bond in year 1 ($10 of the $20 investment) and claiming half the proceeds in year 2 ($11 of the $22 in principal and interest); thus, there is no effect on the taxpayer's rate of return.[104] As a result, an income tax penalizes savings by making consumption in the future more expensive than consumption today,[105] while a consumption tax does not affect the incentive to save.[106] By distorting people's choices between spending and saving, an income tax reduces economic welfare, at least under certain assumptions.[107] This is the primary reason why many scholars argue that a consumption tax is preferable to an income tax[108]—an issue I return to in section D, below.

B. Taxing Returns to Capital

The relationship between consumption and income taxes is not simply that the latter taxes the return on capital while the former does not. More specifically, capital income can be divided into three categories: the risk-free return (e.g., on U.S. Treasury bills); returns earned by taking risk (e.g., on a global stock index fund); and "inframarginal" returns from investments that are unusually attractive because of factors such as market power, rare skills, or protected intellectual property[109] (e.g., on the stock that David Choe received for painting Facebook's offices in 2005).[110]

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103 If the taxpayer had saved nothing, consumption could only have increased from $40 to $50 worth of goods and services.

104 *See* Noël B. Cunningham, *The Taxation of Capital Income and the Choice of Tax Base*, 52 TAX L. REV. 17, 24–25 (1996).

105 *See* Toder & Rueben, *supra* note 94, at 103.

106 Under a consumption tax, any dollar I save is likely to turn into more than a dollar in the future; however, discounted back to the present, the consumption I can buy with those expected future dollars equals the value of the consumption I am forgoing today. *See id.*

107 *See* George R. Zodrow, *Should Capital Income Be Subject to Consumption-Based Taxation?*, *in* TAXING CAPITAL INCOME 49, 54–58 (Henry J. Aaron et al. eds., 2007).

108 *See* Toder & Rueben, *supra* note 94, at 100–04.

109 *See* Edward D. Kleinbard, *Designing an Income Tax on Capital*, *in* TAXING CAPITAL INCOME 165, 168 (Henry J. Aaron et al. eds., 2007); *see also* Cunningham, *supra* note 104, at 23.

110 Nick Bilton, *Facebook Graffiti Artist Could Be Worth $500 Million*, N.Y. TIMES (Feb. 7, 2012), http://bits.blogs.nytimes.com/2012/02/07/facebook-graffiti-artist-could-be-worth-500-million/. I chose Choe's Facebook stock rather than Mark Zuckerberg's Facebook stock because the returns on the latter were arguably partly returns on Zuckerberg's labor, not his capital investment. Choe, by contrast, took Facebook stock instead of cash for his work and did not contribute to Facebook's growth thereafter.

In theory, an ideal income tax (which covers all real increases in wealth, whether or not they are realized, and allows full deductions for losses) taxes risk-free returns but does not tax returns earned by taking risk.[111] This result follows from the fact that each investor has control over the allocation between risk-free and risky assets. An income tax reduces both gains and losses, lowering overall risk, because the government claims a share of the returns (positive or negative). However, an investor can respond to the tax by increasing the allocation to risky investments to restore her preferred risk level. This enables the investor to reproduce the same outcomes that would have occurred in the absence of taxes, except that in each state of the world the rate of return will be reduced by the tax rate times the risk-free rate of return.[112] If the risk-free rate is 2% and the tax rate is 50%, the overall rate of return will be only 1 percentage point lower than in a world without taxes, at least for savvy investors. This also implies that an income tax can never reduce the rate of return on capital by more than the risk-free rate: if the risk-free rate is 2%, a 99% income tax will only reduce *r* by 1.98%. This constraint severely limits the impact of a capital income tax, at least in theory.[113]

So far, tax theory holds that an income tax affects the risk-free return but not the return from bearing risk, while a consumption tax affects neither. The final category of capital income is returns from inframarginal investments—"inframarginal" because any rational investor would exhaust them before allocating money to "marginal" investments.[114] A consumption tax does not directly reduce the rate of return

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111 *See* Cunningham, *supra* note 104, at 29.

112 For example, assume that, in the absence of taxes, a taxpayer would invest $50 in a risk-free bond yielding a 2% return and $50 in a risky asset yielding a 8% or 0% return with equal probabilities. The bond will return $1 and the risky asset will yield $4 or $0, for a total return of either $5 or $1; since these are equally likely, the expected return is $3, or 3%. If the income tax rate is 50% and the taxpayer does not adjust investments, the total pre-tax return will still be $5 or $1, so the after-tax return will be $2.50 or $0.50, for an expected return of $1.50, or 1.5%. However, the investor can instead invest all $100 in the risky asset, which will yield $8 or $0 before taxes and $4 or $0 after taxes—exactly $1 less, in both scenarios, than in the world without taxes. The expected return will then be $2, or 2%. Relative to the world without taxes, the returns have fallen by the tax rate (50%) times the risk-free rate of return (2%), or 1 percentage point. *See* Cunningham, *supra* note 104, at 30–34 (demonstrating general algebraic solution). In retrospect, the tax will appear to have claimed a share of the returns from bearing risk; in the example above, the taxpayer invests all of the money in a risky asset with a 4% pre-tax expected return, resulting in a 2% after-tax expected return. Relative to the world without taxes, however, the expected return has only fallen by one percentage point.

113 The constraint also implies that income taxes may not have played the major role in tempering inequality in the twentieth century that Piketty ascribes to them. *See* PIKETTY, *supra* note 7, at 373.

114 For example, if you are the only person who knows that there is oil under a plot of farmland and thus can buy it for much less than it is worth, you would buy all of that land before investing in any other assets.

on inframarginal investments. As above, the government's share of the investment proceeds exactly balances its share of the initial investment. However, the government's ability to claim a share of these investments reduces the amount the taxpayer can invest in them, lowering the overall rate of return.[115] An income tax has a similar impact on inframarginal investments. Because access to these opportunities is limited, a taxpayer cannot arbitrarily increase the allocation to them in response to the tax, and therefore cannot make the portfolio adjustment required to minimize its effect.[116] Hence, an income tax also reduces the rate of return on inframarginal investments.[117]

C. *Income and Wealth Taxes*

Recall that an income tax affects the risk-free rate of return but not the return from bearing risk, at least for investors who make appropriate portfolio adjustments. This implies that a tax on investment income during a year has essentially the same impact as a wealth tax assessed on the taxpayer's capital at the beginning of the year (leaving aside inframarginal investments for the moment). For any risk-free rate of return r_F, an income tax at rate t will reduce the taxpayer's overall rate of return by $r_F t$, so the effective amount of the tax is $r_F tW$, where W is the amount of wealth the taxpayer had at the beginning of the year. The same result can be achieved with a wealth tax at rate $r_F t$.[118] Using the numbers above, if the risk-free rate is 2%, a 50% income tax will have the same effect as a 1% wealth tax: either way, each investor's rate of return will be 1 percentage point lower than in a world without taxes.

Like an income tax, a wealth tax does not affect the return to risk in the specific sense that its impact on a taxpayer, relative to a world without taxes, is the same whether that taxpayer's investments do well or poorly. A wealth tax is assessed as a percentage of net assets at a point in time—say, 1%. A tax assessed on December 31, 2014 (regardless of when it is due) obviously does not depend on investment returns in 2015. We can think of that tax as lowering 2015 returns by 1 percentage point, regardless of actual outcomes.[119] (Similar to an income tax, a wealth tax can affect inframarginal returns. If an investor enjoys exceptional re-

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115 *See* Cunningham, *supra* note 104, at 27.

116 *See* Schenk, *supra* note 84, at 440.

117 *See id.* A fourth category of returns is compensation for expected inflation. In theory, neither an ideal consumption tax nor an ideal income tax burdens the inflation premium; in practice, the failure to index the income tax base means that the real-world income tax does burden the inflation premium. *See* Daniel N. Shaviro, *Replacing the Income Tax with a Progressive Consumption Tax*, 103 TAX NOTES 91, 101 (2004).

118 *See* Cunningham, *supra* note 104, at 35.

119 *See* Schenk, *supra* note 84, at 438–40. The wealth tax assessed on December 31, 2015 does depend on 2015 returns: for every additional dollar of 2015 returns, the taxpayer will pay an additional $0.01 in 2015 wealth taxes. However, this is essentially a 1% tax on 2015 capital

turns from an inframarginal investment, those returns will appear in the tax base on the next assessment date; by definition, a taxpayer cannot arbitrarily increase the allocation to the inframarginal investment in order to minimize the impact of the tax.)[120] Unlike a capital income tax, however, the impact of a wealth tax is not limited by the *amount* of the risk-free rate. Even if the risk-free rate is 2%, for example, a wealth tax could be imposed at a rate of 3% or higher.[121] For this reason, a wealth tax can be targeted to reduce r by any reasonable number of percentage points.[122]

In summary, a wealth tax and an income tax place largely the same burden on capital; both differ from a consumption tax in their ability to affect the risk-free return.[123] Taxpayers would hold different investment portfolios under the wealth and income taxes: they would allocate more capital to risky assets under an income tax than under a wealth tax, because the income tax demands much larger portfolio adjustments. Taking government fiscal policy into account (since government revenues depend on taxpayers' investment choices), however, the market-wide allocation between risk-free and risky assets remains the same.[124] In theory, then, a wealth tax has the same economic effects as a tax on capital income. Perhaps the most important difference is that an income tax cannot reduce r by more than the risk-free rate, while a wealth tax has no such limitation.

D. Why Tax Capital Income at All?

As discussed in section A, a consumption tax does not affect the choice between saving and spending, while an income tax penalizes saving. This is the basis for the near-consensus among academics that, at

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income, and therefore the taxpayer can minimize the impact of this tax by increasing the allocation to risky assets, just as with any income tax.

120 If a taxpayer earns extraordinary returns during a tax year, he or she is not captured by the wealth tax until the end of the year, leaving open the possibility that the taxpayer could consume those returns before they are subject to tax. *See id.* at 443. For the purposes of this paper, though, this is a small difference: if people with access to superior investments choose to immediately consume their excess returns, then those returns will not contribute to the buildup of large fortunes and the growth of wealth inequality.

121 *See supra* note 112 and accompanying text. The portfolio adjustments described by Schenk are much too small to significantly reduce the net impact of the wealth tax. In a model with one risk-free asset and one risky asset, the appropriate adjustment is to increase the allocation to the risky asset by a factor of $1 / (1 - t)$ relative to the no-tax world, where t is the tax rate. Cunningham, *supra* note 104, at 31. For a 3% wealth tax, this would only increase the allocation to the risky asset by about 3%, which would have a small impact on the pre-tax rate of return.

122 *See* Bankman & Shaviro, *supra* note 16, at 487.

123 *See* Cunningham, *supra* note 104, at 43; *see also* Kleinbard, *supra* note 109, at 167 ("A well-designed income tax should be like a wealth tax . . . .").

124 *See* Louis Kaplow, *Taxation and Risk Taking: A General Equilibrium Perspective*, 47 NAT'L TAX J. 789, 792–93 (1994).

least in theory, a consumption tax is preferable to an income tax.[125] In this respect, a wealth tax is no better than an income tax, since both reduce the return on savings. Higher taxes on capital in either form should reduce savings, lowering overall economic welfare.[126] This implies that adding a new wealth tax on top of existing taxes, as suggested by Piketty, would be economically harmful. In addition, consumption may be easier to measure than income, simplifying administration and reducing opportunities for tax avoidance.[127] So perhaps, if our goal is to reduce inequality, we should consider a progressive consumption tax rather than a tax on capital.

There is considerable debate about whether taxes on capital actually reduce economic welfare in the real world. Even the theoretical benefits of a consumption tax over an income tax are highly sensitive to modeling assumptions.[128] In addition, there are multiple theoretical arguments in favor of taxes on capital.[129] For example, if people with higher earning ability are more likely to save than people with lower earning ability, then taxing savings better links the tax burden to ability to pay.[130] Moving beyond theory, there is little empirical evidence that taxes on savings and investment actually result in lower savings.[131] While tax preferences for investments may encourage lower- and middle-income families to save more, this does not seem to be the case for the very rich.[132] Therefore, it is unlikely that taxes on capital income have the pernicious effect on savings predicted by theoretical models. In addition, real-world households engage in various forms of tax avoidance behavior; since tax bases motivate different types of gaming, it makes sense to levy different types of taxes rather than relying entirely on consumption or labor income.[133]

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125 *See, e.g.*, Joseph Bankman & David A. Weisbach, *The Superiority of an Ideal Consumption Tax over an Ideal Income Tax*, 58 STAN. L. REV. 1413, 1414 (2006) ("[B]ased on current understanding, ideal consumption taxes are superior to ideal income taxes."); Daniel Shaviro, *Beyond the Pro-Consumption Tax Consensus*, 60 STAN. L. REV. 745, 747 (2007).

126 *See* Zodrow, *supra* note 107, at 53–64.

127 *See id.* at 50.

128 *See id.* at 53–64.

129 Peter Diamond & Emmanuel Saez, *The Case for a Progressive Tax: From Basic Research to Policy Recommendations*, 25 J. ECON. PERSPECTIVES 165, 177–83 (2011).

130 *See id.* at 180–81.

131 *See* Toder & Rueben, *supra* note 94, at 135 ("[S]tatistical studies find little evidence of a positive relationship between saving and the after-tax return."); *see also* Emmanuel Saez et al., *The Elasticity of Taxable Income with Respect to Marginal Tax Rates: A Critical Review*, 50 J. ECON. LITERATURE 3, 42 (2012) ("[T]here is no compelling evidence to date of *real* economic responses to tax rates . . . at the top of the income distribution.").

132 *See* Toder & Rueben, *supra* note 94, at 128.

133 *See* David Gamage, *The Case for Taxing (All of) Labor Income, Consumption, Capital Income, and Wealth*, 68 TAX L. REV. 355, 358 (2015).

More generally, a consumption tax can do little about a society that is increasingly dominated by concentrated fortunes and inherited wealth. When $r > g$, wealthy families can consume a portion of their investment income, save the rest, and still watch their share of total wealth grow. If, as Piketty forecasts, the real economic growth rate stabilizes at around 1.5% and the pre-tax rate of return on capital remains around 4% (where it is today),[134] a family with $20 million in net assets—the minimum to be in the top 0.1% in the United States[135]—will receive $800,000 in capital income each year (after accounting for inflation). It can re-invest $300,000 in order to maintain its proportionate share of society's wealth[136] and consume the other $500,000—all without working. A consumption tax would treat this family the same as another family with $500,000 in labor income and no income from capital, at least for this year.

If the family chooses to devote less than $500,000 to consumption, its share of national wealth will grow over time until it is passed on to the children, leaving them even better off than their parents. In Europe, the increase in total capital and inequality of capital ownership over the past fifty years has generated a rising volume of gifts and bequests.[137] In France, more than 12% of people born after 1970 will receive more in inheritances than the average person in the bottom half of the income distribution will earn from an entire lifetime of work.[138] A consumption tax, no matter how progressive, can have little impact on the accumulation and transmission of wealth because that wealth is not consumed by definition.[139] If we are concerned about inequality of wealth and the consequent privileging of inheritance over work, a consumption tax is unlikely to provide much of a solution.

Alternatively, a consumption tax advocate could argue that, at the end of the day, it is consumption that matters, not income or wealth, and therefore measures to reduce inequality of income or wealth are beside the point:[140] wealth has no purpose other than consumption and therefore

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134 *See* PIKETTY, *supra* note 7, at 356.

135 *See* Saez & Zucman, *supra* note 5, at tbl.1.

136 $20 million x 1.5% = $300,000.

137 *See* PIKETTY, *supra* note 7, at 425.

138 *See id.* at 421.

139 One can imagine punitively high consumption tax rates of, for example, 90% for consumption above $1 million per year (so that $1 million in gross income is required to pay for $100,000 in consumption). This would force wealthy households to use much more of their capital income for consumption, leaving less for savings. The problem is that these tax rates would also affect households that earn most of their income through labor and would therefore create a powerful incentive against work. In addition, the tax rates would remain trivially small for the wealthiest families, which consume only a tiny fraction of their capital income.

140 *See, e.g.*, Kevin A. Hassett & Aparna Mathur, Op-Ed., *Consumption and the Myths of Inequality*, WALL ST. J. (Oct. 24, 2012), http://www.wsj.com/articles/SB10000872396390444100404577643691927468370.

should not be taxed until it is consumed. Even if that consumption occurs in the far-distant future, the taxes that would be paid in the future have a present value that can be calculated today.[141] This view, however, overlooks the many benefits of wealth other than consumption.[142] There is financial security, both for the wealth holder and for any number of generations of descendants, and the peace of mind that it provides. Ownership of large stakes in corporations brings influence over those businesses and the economy in general. Assets can be built up in family foundations or donated to charitable organizations, both of which are exempt from taxation, enabling the wealthy to promote their preferred causes and gain the psychological benefits of altruism. Charitable contributions are only one way in which wealth confers fame and social status; think, for example, of Mark Cuban's ownership of the Dallas Mavericks or Roman Abramovich's purchase of Chelsea FC—both of which qualify as investments rather than consumption goods.[143] Money also brings political influence, especially in the United States, where the super-rich are financing an increasing proportion of campaign activity.[144]

Despite its theoretical advantage in economic efficiency, a consumption tax is not an adequate vehicle to address the problem of growing wealth inequality. Reducing inequality is itself a societal objective that could justify some reduction in efficiency, and therefore a tax on capital could improve overall social welfare.[145] For these reasons, we should attempt to identify what tax policy can best reduce the rate of return on capital.

IV. AN INCOME TAX ON CAPITAL

In Part II, I discussed some of the shortcomings of an annual net wealth tax. This and the following Part discuss whether an alternative tax could better and more practically reduce the gap between r and g and thereby slow down the growth of wealth inequality.

An obvious candidate is an income tax on investments. The return on capital is the sum of the interest, dividends, rents, and other cash flows that stem from investment assets, plus the gains realized on the

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141 *See* Shaviro, *supra* note 117, at 106.

142 *See* Toder & Rueben, *supra* note 94, at 104; Schenk, *supra* note 84, at 463–65.

143 Daniel Shaviro argues that the non-consumption benefits of wealth flow from the fact that wealth can be used for consumption. *See* Shaviro, *supra* note 117, at 106. I am not sure this is correct. For example, Abramovich's purchase of Chelsea FC is an investment for tax purposes, yet probably conferred substantial benefits upon him.

144 *See generally* KENNETH P. VOGEL, BIG MONEY: 2.5 BILLION DOLLARS, ONE SUSPICIOUS VEHICLE, AND A PIMP—ON THE TRAIL OF THE ULTRA-RICH HIJACKING AMERICAN POLITICS (2014). Political contributions could be captured by a consumption tax, but overall influence in the form of connections and access goes beyond actual cash donations.

145 *See* Toder & Rueben, *supra* note 94, at 104. For additional arguments for supplementing a consumption tax with a wealth tax, see Schenk, *supra* note 84, at 456–73.

sale of those assets. A tax on all of these cash flows and capital gains reduces the effective return on capital. In addition, according to tax theory, a wealth tax is largely equivalent to a capital income tax, at least under certain assumptions.[146] If an annual wealth tax is too difficult to administer or too controversial to enact, then an income tax is a natural alternative. Finally, income taxes on capital have the merit of existing in some form in all advanced economies, if we include corporate income taxes,[147] and therefore do not face the same administrative, political, and constitutional challenges as the introduction of a wealth tax. So perhaps existing taxes on investment income could be modified to achieve the goals of Piketty's wealth tax.[148]

Unfortunately, an income tax on capital suffers from two major shortcomings. First, as discussed above, its impact for most households (those without access to inframarginal investments) is limited to a fraction of the risk-free rate of return. Second, in its current form, it allows investors to reduce their effective tax rate by deferring capital gains—a benefit that the wealthiest families are most likely to enjoy.

A. Not Big Enough

The fact that we already have capital income taxes is evidence of their limited effectiveness. In the United States, for example, both capital gains and qualified dividends are taxed at a top rate of 23.8%, while the top rate on interest income is 43.4% (both including the 3.8% Medicare surtax on high-income households).[149] In addition, corporations pay income tax at a top rate of 35%, although the average effective tax rate is significantly lower.[150] These tax rates are higher than they were from 2001 until 2013, but comparable to or lower than the top tax rates on investment income between the late 1970s and 2001,[151] a period in which the top 0.5% of households claimed a steadily increasing share of total national wealth.[152] This implies that current U.S. tax rates are not

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146 *See supra* Part III.C.

147 *See* Robert Carroll & Gerald Prante, *Corporate Dividend and Capital Gains Taxation: A Comparison of the United States to Other Developed Nations*, ERNST & YOUNG (Feb. 2012), http://images.politico.com/global/2012/02/120208_asidividend.pdf. A corporate income tax, by reducing the profits of corporations, is at least in part a tax on equity investments in those corporations.

148 *See* Clive Crook, *Piketty's Wealth Tax Isn't a Joke*, BLOOMBERG VIEW (May 11, 2014), http://www.bloombergview.com/articles/2014-05-11/picketty-s-wealth-tax-isn-t-a-joke.

149 Tax rates quoted for the United States are for federal taxes only.

150 *See* Martin A. Sullivan, *Behind the GAO's 12.6 Percent Effective Corporate Rate*, 149 TAX NOTES 197, 197 (2013).

151 *Top Federal Income Tax Rates Since 1913*, CITIZENS FOR TAX JUSTICE, http://www.ctj.org/pdf/regcg.pdf (last visited Feb. 12, 2015). The maximum rate on capital gains varied between 20% and 40%, while the maximum rate on interest and dividends varied between 28% and 70%.

152 *See* Saez & Zucman, *supra* note 5, at fig.1.

sufficient to prevent a continual increase in inequality, especially since g is likely to be lower in the future than in the recent past. It follows that if a tax on capital income is to slow down the process of wealth concentration, it will have to be levied at significantly higher rates than at present.

As discussed above, however, tax theory demonstrates that the impact of an income tax on r is limited by the risk-free rate of return, r_F. For any tax rate t, an investor can use portfolio reallocation to ensure that the after-tax rate of return is only $r_F t$ lower than in a world without taxes. Clearly, t cannot exceed 100%, and in practice probably cannot approach 100% without triggering an explosion of tax avoidance activity, so the impact of an income tax on r must be significantly lower than r_F.

The real risk-free rate of return is generally thought to be small—on the order of 0.5% to 1.0%[153]—which implies that it is impossible for a capital income tax to reduce r by more than 1 percentage point per year. The real risk-free rate is usually approximated using the real return on short-term Treasury bills, which has historically been less than 1%.[154] However, the rate of return that is captured by an income tax may be somewhat higher for two reasons. The first is inflation. Current U.S. income taxes are not indexed for inflation, so taxpayers must pay taxes even on returns that merely compensate them for rising price levels. Therefore, the burden of an income tax falls not on the real risk-free rate of return, but on the nominal risk-free rate, which includes inflation.[155] Nominal returns on Treasury bills have historically been considerably higher than real returns, perhaps as high as 5% on average.[156] In recent years they have been virtually zero,[157] however, and with the Federal Reserve aiming to maintain inflation around 2%,[158] the nominal risk-free rate in the future is likely to be around 2.5% to 3%.

Second, in order to neutralize the impact of an income tax on returns to risk, investors must shift more of their portfolios into risky assets. At some point (depending on their risk preferences), they will have to borrow money in order to leverage up their risky investments. In that

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153 *See* Reed Shuldiner, Commentary, *Does the United States Tax Capital Income?*, *in* TAXING CAPITAL INCOME 31, 35 (Henry J. Aaron et al. eds., 2007). *But see id.* at 36–37.

154 *See* Cunningham, *supra* note 104, at 21 n.23. In early 2015, the nominal yield on 3-month Treasury bills varied between one and four basis points. *Daily Treasury Yield Curve Rates*, U.S. DEP'T OF THE TREASURY, http://www.treasury.gov/resource-center/data-chart-center/interest-rates/Pages/TextView.aspx?data=yield (last visited Feb. 12, 2015). If inflation is positive at all, then the real yield on 3-month Treasury bills is negative.

155 Cunningham, *supra* note 104, at 41; Shaviro, *supra* note 117, at 101.

156 The 1-year Treasury bill has averaged a yield of 5.1% since 1953. *1-Year Treasury Constant Maturity Rate*, FED. RESERVE BANK OF ST. LOUIS, http://research.stlouisfed.org/fred2/series/GS1 (last visited Feb. 12, 2015). Data on shorter-term bills are not available for as long a period.

157 *Id.*

158 Press Release, Bd. of Governors of the Fed. Reserve Sys., 2012 Monetary Policy (Jan. 25, 2012), http://www.federalreserve.gov/newsevents/press/monetary/20120125c.htm.

case, the rate of return that is burdened by an income tax is not the risk-free rate, but the investor's personal borrowing rate[159]—which can exceed the risk-free rate by 2 or more percentage points.[160]

To put this in perspective, assume that inflation is 2% and the real risk-free rate is 1%, so the nominal rate is 3%. This implies that an income tax of 50%—higher than any OECD country currently levies on either dividend or capital gains income[161]—would only reduce sophisticated investors' returns by 1.5 percentage points. (If those investors borrow at 2 percentage points above the risk-free rate in order to achieve their optimal risk levels, then the tax would reduce their returns by 2.5 percentage points.)[162] This is a 1.5 percentage point reduction relative to a world without taxes, so its impact on the real world—which already has taxes—would be significantly smaller. Therefore, a 50% income tax on capital would not close the gap between r and g, particularly if Piketty's long-term forecasts are even roughly correct. A 50% income tax on capital would only modestly slow the accumulation of wealth among the very rich; from 1980 to 2012, the average wealth of the top 0.1% of U.S. households grew at an annual rate of 5.4% after inflation and taxes, and the corresponding figure for the top 0.01% was 6.9%.[163] Even a major increase in tax rates on investment income could only lower those growth rates by a small amount, and they would still remain well above the 0.9% average growth rate for the bottom 90% of the population.[164]

Moreover, an income tax's impact on returns depends primarily on inflation and secondarily on investors' preferred allocations and borrowing rates. In other words, the ability of the tax system to limit the gap between r and g would vary tremendously and arbitrarily as inflation rises and falls.[165] Today, for example, with nominal risk-free rates approaching zero, an income tax should in theory have virtually no impact on returns to capital. Even if inflation remains stable, the effectiveness of the tax will vary across households, with the most conservative and creditworthy families paying the lowest tax rates.[166]

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159 *See* Cunningham, *supra* note 104, at 38.

160 One financial advisor at a major asset management company said that he could offer a borrowing rate of LIBOR + 2.5 percentage points to a borrower with assets over $10 million. *See also* Cunningham, *supra* note 104, at 37 n.72 (citing an investment bank that charges 0.75–4% above the federal funds rate for margin loans).

161 Carroll & Prante, *supra* note 147, at 11, 13.

162 The borrowing rate is 3% + 2% = 5%, so the impact of the tax is 50% x 5% = 2.5 percentage points.

163 *See* Saez & Zucman, *supra* note 5, app. at tbl.B3.

164 *See id.*

165 *See* Cunningham, *supra* note 104, at 41.

166 *See id.* at 38.

B. Realization and Deferral

The realization requirement poses another problem for using an income tax to reduce *r*. Because capital gains are not taxed until an asset is sold, an investor can indefinitely defer taxes on increases in asset values. To take a simple example, if $r = 6\%$, $t = 50\%$, and an investor sells an asset after one year, then the after-tax rate of return will be 3%. If the investor holds onto the asset for twenty years, by contrast, the annualized after-tax rate of return will be 3.8%. After sixty years—a plausible duration for assets placed in a trust for the next generation—it rises to 4.8%. In other words, an investor can reduce the tax rate simply by holding onto assets for a long time (and can do even better by selling assets that have fallen in value). As a result, the impact of an income tax differs across taxpayers, and is *lowest* for the wealthiest investors, who can afford to hold onto assets for decades or generations.[167] At the same time, the benefits of tax deferral distort investor's choices between holding and selling assets.

There are various ways in which capital income could be taxed when it accrues rather than when it is realized.[168] However, accrual-based taxation would incur the valuation problems discussed above for the annual wealth tax. Eliminating the realization requirement would also be a major change in the current tax system, undermining the primary advantage of an income tax over a wealth tax: the fact that the former already exists and only requires an increase in rates.

In summary, although an income tax on capital exists today and probably contributed to the mitigation of wealth inequality in the twentieth century,[169] its effectiveness in reducing the gap between *r* and *g* is limited. Even at high rates, an income tax cannot reliably reduce *r* by more than a fraction of the nominal risk-free rate of return. In addition, the realization requirement allows taxpayers to dramatically reduce their effective tax rates, increasing their after-tax rates of return. For these reasons, the income tax is a particularly blunt instrument for slowing the concentration of wealth; while it can reduce the rate of return on capital, it does so in a manner that can be arbitrary and regressive rather than progressive.[170] If we are concerned with increasing wealth inequality due to high returns on investments, an income tax is better than no tax on capital at all. But is there an alternative?

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167 For a capital income tax to effectively tax the largest fortunes, the step-up of basis upon death (which currently allows heirs to use the asset value at the time of inheritance as their cost basis) would have to be eliminated.

168 *See, e.g.*, David J. Shakow, *Taxation Without Realization: A Proposal for Accrual Taxation*, 134 U. PA. L. REV. 1111 (1986).

169 *See* PIKETTY, *supra* note 7, at 373.

170 Cunningham, *supra* note 104, at 43–44.

V. A RETROSPECTIVE CAPITAL TAX

The primary challenges facing an annual net wealth tax are the valuation problem and, in the United States, its questionable constitutionality. The primary deficiency of an income tax is its limited and arbitrary impact on the rate of return. All of these problems can be solved with a retrospective tax on capital, as described below. Such a system assesses tax liabilities only when an investor receives cash flows from investments, but calculates those liabilities based on the imputed historical value of those investments.

A. Basic Concepts

To understand the retrospective capital tax, first consider an income tax on capital in which taxes are deferred until realization—as they are today—but with interest.[171] Under the current system, deferring taxes amounts to borrowing money from the government, interest-free, and reinvesting it in the same asset; paying interest on the deferred amount eliminates this benefit. Say an investor buys an asset for $100 at the beginning of year 1. At the end of year 1, the asset is worth $105; at the end of year 2, it is sold for $121. An ordinary income tax considers only the gross profit—$21 in this case—and collects a percentage of that profit. A retrospective tax, by contrast, takes into account when those $21 of gains accrued; because the investor did not pay taxes at the time of accrual, interest must now be paid on the tax attributable to prior years. In this example, the year 1 gain is $5,[172] and the year 2 gain is $16.[173] The taxpayer must pay not only the tax on the year 1 gain, but also interest on that tax, charged at the after-tax risk-free rate of return.[174] Compared to a traditional income tax, the retrospective tax liability is higher by the amount of the interest on the tax on the year 1

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171 For an early version of this type of tax system, see William Vickrey, *Averaging of Income for Income-Tax Purposes*, 47 J. POL. ECON. 379, 383–84 (1939). For a detailed analysis of charging interest on deferred taxes, see Stephen B. Land, *Defeating Deferral: A Proposal for Retrospective Taxation*, 52 TAX L. REV. 45, 65–73 (1996).

172 $105 – $100 = $5.

173 $121 – $105 = $16.

174 The risk-free rate is appropriate because the tax itself is "risk-free"; it must be paid in the future, regardless of the investment outcome. Because the deferred tax is essentially a loan from the government that the taxpayer chooses to reinvest, the interest on that loan should be deductible as an investment expense, so the net interest paid should be at the after-tax rate. To see this, imagine that the asset in question is a risk-free government bond. Holding onto the asset is equivalent to taking a risk-free loan from the government and reinvesting it in a risk-free bond, which should leave the taxpayer no better or no worse off. Because the year 2 return on that bond will be taxed, the interest on the year 1 tax must be tax-deductible, or else the taxpayer will be made worse off. This is a common but not the only way of thinking about the interest charge. *See* Land, *supra* note 171, at 68.

gain.[175] An investor can no longer claim an interest-free loan from the government simply by holding onto an asset, and so the tax system does not affect the decision to sell the asset or not.

In this form, however, a retrospective tax simply recreates the valuation problem: how do we know that the asset is worth $105 at the end of year 1?[176] One possibility is to assume that the asset appreciated at a constant annual rate.[177] In the example above, we know that the taxpayer bought the asset for $100 and sold it two years later for $121, which implies an average annual rate of return of 10%. So, for tax purposes, we could simply assume that the asset was worth $110 at the end of year 1. Then the gain attributable to year 1 is $10,[178] and the gain attributable to year 2 is $11;[179] the taxpayer must pay tax on both gains, plus interest on the tax on the year 1 gain.

Assuming a constant rate of appreciation is easily understandable, but this approach recreates the deferral problem in a slightly different form. If an investor knows that an asset has appreciated unusually rapidly in the past—so that its rate of appreciation is likely to be lower in the future—then there is an incentive to hold onto the asset in order to spread the extraordinary past gain over a longer period. Conversely, if the asset has lost money, there is an incentive to sell it and lock in the loss and corresponding tax benefit.[180] These distortions are less significant than for an ordinary income tax, however, which rewards investors for holding onto *any* appreciated assets by giving them a lower effective tax rate.

In the above examples, taxes are assessed as a percentage of income (capital gains). Similar methods could be used to implement a retrospective wealth tax. Assume that instead of an income tax, we impose a wealth tax of 2%. If we know that an asset is worth $100 at the beginning of year 1 and $105 at the beginning of year 2, and is sold for $121 at the end of year 2, we can collect 2% of its value at the beginning of each year, plus interest. Because of the valuation problem, we could alternatively impute the asset's value at the beginning of year 2 by assuming a constant rate of appreciation. Then the imputed value at the beginning of

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175 The risk-free rate may appear too low, particularly when the "loan" from the government is "reinvested" in a risky asset that yields more than the risk-free rate. This is misleading, however, because the successful outcome is only visible after the fact. When a taxpayer decides to "reinvest" the year 1 taxes by not selling an asset, it is with knowledge that the interest must be paid.

176 *See* Land, *supra* note 171, at 66.

177 *See* Joseph M. Dodge II, *The Taxation of Wealth and Wealth Transfers: Where Do We Go After ERTA?*, 34 RUTGERS L. REV. 738, 763–64 (1982).

178 $110 – $100 = $10.

179 $121 – $110 = $11.

180 *See* Alan J. Auerbach, *Retrospective Capital Gains Taxation*, 81 AM. ECON. REV. 167, 168 (1991).

year 2 would be $110.[181] If we do the same for all assets, the sum of the taxes on those assets will amount to a tax on all of the taxpayer's wealth—even if the tax due for each asset may be paid in a different future year.

In short, either an income tax or a wealth tax can be based on historical asset values, actual or imputed. Using imputed values solves the problems of identification, valuation, and liquidity (for a wealth tax), but does not eliminate the problem of deferral (for an income tax).

B. Imputing Past Values at the Risk-Free Rate of Return

A retrospective capital tax can be designed to solve the deferral problem, preventing investors from lowering their effective tax rates through decisions to hold or sell assets. This approach was first presented by Alan Auerbach as a method for calculating capital gains under an income tax.[182] The solution is to assume, when a taxpayer sells an asset, that it appreciated at a constant rate equal to the risk-free rate of return from the beginning of the holding period to the end.[183] For example, assume that the risk-free rate is 3%. A taxpayer buys an asset at the beginning of year 1 and sells it at the end of year 2 for $106.09. The retrospective tax assigns the asset an imputed value of $100 at the beginning of year 1 and $103 at the beginning of year 2—because $100 invested at 3% per year would result in $103 after one year and $106.09 after two years.[184] The actual purchase price of the asset is irrelevant; only the sale price and the holding period are necessary to calculate the tax.[185]

Under this approach, the imputed historical asset values of $100 and $103 are used to calculate the capital gains for each year of the holding period. Taxes on those capital gains are then due, with interest, when the asset is finally sold. In the above example, the imputed capital gains are $3 for year 1 and $3.09 for year 2;[186] when the asset is sold, the taxpayer owes tax on those gains, plus interest on the year 1 tax. At any moment in time, an investor is indifferent between (a) holding the asset and (b) selling it, paying the associated tax, and reinvesting the proceeds in the

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181 The year 1 value would still be $100.

182 *See* Auerbach, *supra* note 180. For an expansion of Auerbach's approach, see David F. Bradford, *Fixing Realization Accounting: Symmetry, Consistency, and Correctness in the Taxation of Financial Instruments*, 50 TAX L. REV. 731 (1995).

183 *See* Auerbach, *supra* note 180, at 172.

184 $100 x (1 + 3%) = $103; $103 x (1 + 3%) = $106.09. Auerbach's paper is written in continuous time, meaning that returns compound continuously. *See generally id.* The examples here are written in discrete time for ease of understanding and because a real-world tax system would probably be designed in discrete time.

185 *See* Auerbach, *supra* note 180, at 171–72.

186 $103 – $100 = $3 and $106.09 – $103 = $3.09.

same asset; the taxes paid if the asset is sold now are a partial prepayment of the taxes expected to be owed in the future if the asset is sold later.[187] Therefore, this retrospective tax avoids the deferral problem faced by a traditional income tax.

It may seem counterintuitive to calculate capital gains by disregarding the historical cost of an asset and instead assuming that it earned the risk-free rate of return. In other words, the tax liability does not depend on the actual gain: investors A and B who sell (different) assets for $100 pay the same tax, even if A paid $1 for one asset a year before (gaining $99 of income) while B paid $199 for the other asset (yielding a $99 loss). As with any income tax, however, an investor can adjust the portfolio allocation so that the retrospective tax will have the same impact on eventual returns in every state of the world. After the fact, it may seem unfair to pay tax on an asset that lost money, but proper allocation before the fact can make the *impact* of the tax independent of whether the asset rises or falls in value.[188]

Although Auerbach initially framed this retrospective tax as an income tax, it can just as easily be seen as a wealth tax.[189] As discussed in the previous section, a retrospective wealth tax assesses a tax on each asset when it is sold, but calculates that liability as a function of its value in each year that it was held by the investor. Again, assume an investor buys an asset for $100 and sells it two years later for $106.09, so the imputed beginning-of-year asset values are $100 and $103, and in each year the asset has an imputed return of 3%. A 40% income tax will collect 40% of that 3% imputed return for each year (plus interest for year 1). Since 40% x 3% = 1.2%, this "income tax" is identical to a 1.2% wealth tax levied on beginning-of-year asset values. This is true for any sale price and any holding period, since the imputed rate of return is always the same (3%).

This identity is stronger than merely stating (as in Part III.C) that an income tax is theoretically equivalent to a wealth tax. That earlier equivalence assumed that, through optimal portfolio allocation choices, investors make themselves indifferent between an income tax and a wealth tax. The conclusion here is that, if we impute past asset values by assuming the risk-free rate of return, an income tax at rate t is literally identical to a wealth tax at rate $r_F t$ in that they will collect exactly the same amount of money, after the fact, for any asset sale.

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187 *See* Auerbach, *supra* note 180, at 171.

188 *See* Noël B. Cunningham, *Observations on Retrospective Taxation*, 53 TAX L. REV. 489, 492–94 (2000).

189 *See* Auerbach, *supra* note 180, at 176.

C. *Reducing* r *with a Retrospective Capital Tax*

Deborah Schenk has discussed using a retrospective wealth tax, along with a consumption tax, as a substitute for the current income tax system.[190] Her motivation was to "replicate the burden imposed by an income tax . . . in a simpler form,"[191] and therefore her analysis focused on the various advantages of a wealth tax over an income tax, at least in the real world.[192] In this Article, I evaluate a retrospective capital tax as a policy tool to reduce the rate of return on investments and the growth of wealth inequality. This section explains why such a tax is superior to both an annual wealth tax and a traditional income tax.

A retrospective capital tax solves the valuation problem faced by a wealth tax because it is based on final sale prices, not intermediate values. It solves the deferral problem faced by an income tax by making investors indifferent between selling and holding assets. The retrospective tax also solves the other major problem with an income tax—the constraint imposed by the risk-free rate and the difficulty of calibrating the tax's impact on *r*. Recall that a 50% income tax will only reduce *r* by 50% of the risk-free rate; higher tax rates are of course possible, but will trigger increasing levels of tax avoidance and distorted investment choices. By contrast, the retrospective capital tax, like a wealth tax, can be imposed at an arbitrarily high rate. For example, if the risk-free rate is 3%, the retrospective tax can still reduce *r* by 3 percentage points.[193] It is more intuitive to do so by calling it a 3% wealth tax, but we could just as easily call it a 100% income tax. Since the tax is calculated by assuming the risk-free rate of return, investors keep any returns that exceed the risk-free rate. Conversely, if investors earn less than the risk-free rate, their taxes will exceed their returns. Therefore, investors still have the incentive to seek out high returns—which is not the case with a 100% income tax.

The impact of a retrospective capital tax—the number of percentage points by which it reduces *r*—is also much more robust than that of a traditional income tax. As discussed above, a retrospective tax eliminates the ability of investors to reduce their effective tax rate through deferral. In addition, the portfolio adjustments dictated by the retrospective tax are much smaller than those dictated by a traditional income tax.[194] The implication is that investors are much less likely to need to

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190 *See* Schenk, *supra* note 84, at 448–53. Schenk's main proposal is to implement a wealth tax; however, a retrospective wealth tax is only one possible design for such a tax. *See id.* at 424–25.

191 *Id.* at 424–25.

192 *See id.* at 474–75.

193 *See supra* Part III.C.

194 A retrospective tax absorbs far less risk than a traditional income tax; for example, a traditional income tax absorbs a share of losses as well as gains, while a retrospective tax

borrow in order to make those adjustments, and therefore the impact of the tax is unlikely to be affected by their borrowing rates.

Furthermore, the impact of the retrospective tax does not depend directly on inflation. A traditional income tax (not indexed for inflation) claims a share of investment returns that simply compensate for rising prices. The impact of an income tax on *r* is equal to the tax rate times the nominal risk-free rate, which includes inflation, and therefore varies widely with fluctuations in inflation. For example, if the real risk-free rate is 1% and inflation rises from 0% to 4%, the nominal risk-free rate will rise from 1% to 5%, and the impact of a 50% income tax on *r* will increase from 0.5 percentage points to 2.5 percentage points. The impact of the retrospective tax, by contrast, does not fluctuate with inflation, or even with the real risk-free rate—so long as the tax is calculated as a percentage of wealth (asset values) rather than income (capital gains). To see this, consider the case of assets that are held for only one year. If the risk-free rate is 3%, then a 40% retrospective income tax and a 1.2% retrospective wealth tax will result in exactly the same tax liability, since 40% of the imputed gain is the same as 1.2% of the imputed prior-year asset value; each will reduce *r* by 1.2 percentage points (of the imputed prior-year value). If the risk-free rate rises to 5%, however, a 40% income tax will now reduce *r* by 2 percentage points,[195] while a 1.2% wealth tax will still reduce *r* by 1.2 percentage points.[196] If the tax is calculated as a percentage of asset values, inflation never enters into the equation.[197]

A retrospective wealth tax has another advantage as an instrument for reducing *r*. Recall that, compared to a traditional income tax, a retrospective income tax may seem unfair because the tax liability is independent of whether an investor made or lost money: if an asset is sold for $100, the tax is the same whether the investor paid $1 or $199 for it. Compared to a traditional wealth tax that is imposed annually, however, the perspective reverses.[198] The fortunate investor who bought an asset for $1 and sold it a year later for $100 pays "too much" tax under the retrospective system, which assumes that the asset was worth much more than $1 when it was purchased ($100, discounted at the risk-free rate of

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imposes a positive tax even on top of a capital loss. *See* Cunningham, *supra* note 188, at 492–94.

195 40% x 5% = 2%.

196 *See* Bankman & Shaviro, *supra* note 16, at 487–88.

197 This follows from the fact that a retrospective tax does not use historical cost information, so the question of indexing does not arise in the first place. Either the real or the nominal risk-free rate can be used to impute historical asset values and to charge interest on taxes for past years; as long as the tax is calculated as a percentage of imputed asset values, the two methods will result in the same current-year tax liabilities.

198 *See* Auerbach, *supra* note 180, at 176.

return), and hence overestimates the investor's past wealth. By contrast, the unfortunate investor who paid $199 and sold for $100 pays "too little" tax because the retrospective formula assumes the asset was worth much less than $199. From the standpoint of reducing *r*, this is a good thing. The family that loses money on its investments is under-taxed (relative to a traditional wealth tax), which is fine because its rate of return is already negative; the family that is extraordinarily lucky is over-taxed, which is fine because its rate of return is extremely high. While the retrospective capital tax reduces *r* by the same amount for all taxpayers from an ex ante perspective, from an ex post perspective it has the greatest impact on taxpayers with the highest rates of return.

For these reasons, although a retrospective income tax and a retrospective wealth tax are functionally identical (as long as the risk-free rate is unchanged), it is preferable to assess the tax as a percentage of imputed asset values and hence imputed wealth. Then a single tax rate can be preserved from year to year and will have a consistent impact on *r*.

Finally, despite its economic effects, this retrospective capital tax is not a "direct tax" and therefore does not run afoul of the U.S. Constitution. Regardless of what we call the tax, it does not tax property simply by virtue of its possession. Although the meaning of "direct tax" is not entirely clear, it appears that a tax on "the use of property or its transfer" does not qualify as a direct tax.[199] The retrospective tax, like a capital gains tax, is triggered by a sale and not by the fact of ownership; because it uses imputed rather than actual asset values, it does not tax actual wealth in any case. The amount of the tax is based entirely on the sale price and the holding period (as well as the risk-free rate, which is a parameter of the system), which are already used to calculate capital gains taxes. Structurally, then, the retrospective tax is an income tax, only formulated differently.

D. A Proposal

This section describes how a retrospective capital tax could work in practical terms. The specifics of the proposal, such as the tax rates, are designed for the United States.

1. The Basics

Most household wealth is in the form of assets that are bought at some time and later sold or redeemed—real estate, stocks, bonds, etc.[200] Some of these assets do not generate cash flows until they are sold, such

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[199] Barry L. Isaacs, *Do We Want a Wealth Tax in America?*, 32 U. MIAMI L. REV. 23, 29–30 (1977) (arguing that taxing an increase in the value of property is a direct tax "without a sale or other disposition").

[200] *See* Wolff, *supra* note 49, at 47.

as artworks, zero-coupon bonds, or growth stocks that do not pay dividends. Under this proposal, they are taxed according to the model described above: when sold, the assets' historical values are imputed using the risk-free rate of return, which is based on the yields of short-term Treasury bills.[201] The tax for each year that the taxpayer held the asset is calculated as *t* times the imputed value of the asset in that year; then interest is added to that base amount, using the risk-free rate.

Many assets that are bought and sold also generate interim cash flows, including dividend-paying stocks, most bonds, and rental properties. It would be incorrect to ignore those cash flows: a bond that pays interest is clearly worth more than a zero-coupon bond with the same face value, even though their final redemption value is the same. Under the retrospective capital tax, each cash flow is treated as a realization event just like a final sale.[202] For example, buying a ten-year Treasury bond paying semiannual interest is equivalent to buying twenty-one different securities: twenty that pay interest on different dates (the "coupons") and one that repays the principal on the maturity date. Receiving an interest payment is the same as selling a coupon and is treated as such: the value of the coupon is imputed using the risk-free rate for each year in the taxpayer's holding period, and the tax is calculated as a percentage of that value plus interest.

Some household wealth is held in assets that do not precisely fit the model above. A defined benefit pension plan, for example, pays a stream of cash flows (typically after retirement), which can be treated as realization events.[203] The appropriate holding period for taxing those cash flows is not obvious from the way we usually think about pensions. To solve this problem, each distribution must be matched with one or more corresponding contribution dates (when the employer or the employee put money into the plan); this is no more complicated than matching share sales and purchases for stocks, ETFs, or mutual funds, and should be no problem for computers.[204] Life insurance policies present the same issue as defined benefit plans: policyholders contribute money (premiums) on some schedule and receive cash flows later in various forms—dividends, cash surrender value, or death benefits. Again, cash

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201 Although either a nominal or a real risk-free rate could be used, as discussed in Part V.C, a nominal rate is preferable because it is easier to reconcile with people's perceptions of asset values.

202 *See* Auerbach, *supra* note 180, at 175.

203 A defined contribution pension plan is simply an account that is used to buy and sell assets, so it can be taxed like any other investment account.

204 The simplest rule would be to require first-in, first-out accounting, in which the first distribution is matched to the first contributions, the second distribution is matched to the next contributions, and so on.

flows received from the policy need to be matched with premiums paid in order to identify the appropriate holding period.

Liquid wealth in savings accounts and checking accounts, which hold "money" rather than securities or other assets, present a similar problem: we do not generally think of bank accounts as containing assets that are bought and sold. There are several possible ways to tax these accounts. One is to treat dollar deposits as assets that are bought and sold: depositing $100 is equivalent to buying one hundred $1 claims on the bank, and withdrawing $50 the next day is equivalent to selling fifty of those claims back to the bank.[205] Each withdrawal, then, is a realization event, and needs to be matched with a specific deposit or deposits to determine the holding period.[206] Banks will have to keep track of the specific dollars in each account—when they were deposited and when they were withdrawn. This is precisely the same computational problem—matching sales and purchases—that exists for brokerage or mutual fund accounts.[207] A holding period also must be assigned to each interest payment: this is the average holding period for whatever "dollars" are in the account at the time the interest is paid.

A second solution is to exempt accounts paying low interest rates from the tax altogether. Since the goal of the tax is to reduce the rate of return on capital, there is no particular need to tax assets that have very low returns.[208] For example, the exemption could apply to accounts earning negative real rates of return, as indicated by a benchmark. As of September 2015, the markets expected inflation over the next five years to average about 1.2% per year;[209] since the highest advertised savings account rates are around 1%,[210] all such accounts are likely to lose money in real terms. Financial institutions that want to pay higher rates of interest could be required to treat withdrawals as distributions and match them with deposits, as described above.[211]

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205 This is literally true, since bank deposits are instantaneous-term loans to the bank.

206 In practice, taxes are assessed annually, so the withdrawals in a year must be matched to one or more years in the past when an equivalent amount of money was deposited.

207 Money market funds are functionally similar to bank accounts since they behave as if they hold dollars, not shares. But they actually do hold shares and can be taxed just like other mutual funds.

208 This point applies to currency in particular. If someone stuffs $100,000 in bills under a mattress, that money will escape the retrospective capital tax, but it will also earn a nominal rate of return of zero.

209 *5-year Breakeven Inflation Rate*, FED. RESERVE BANK OF ST. LOUIS, http://research.stlouisfed.org/fred2/series/T5YIEM (last visited Oct. 27, 2015).

210 *See Savings Accounts*, NERDWALLET, https://www.nerdwallet.com/rates/savings-account/ (last visited Oct. 27, 2015).

211 Alternatively, the Federal Reserve could set maximum interest rates for bank accounts, as it did historically under Regulation Q, which would be exempt from the retrospective tax. Banks could offer higher rates but only through money market accounts, which would be taxed like all other mutual fund accounts. A third solution is to use actual account balances for tax

In addition to taxing cash flows from assets, a retrospective tax must account for liabilities. A person with $10 million in assets and no debt should not be treated the same as a person with $10 million in assets and $9 million in debt. This can be done by treating liabilities as assets in reverse. If taxpayer A borrows $1 million from taxpayer B, that loan is an asset from B's perspective, and B will pay retrospective capital tax on it when repaid by A. It follows that the loan is a negative asset from A's perspective, and A should receive tax credits while repaying it.[212] (From the standpoint of the government, the loan does not create or destroy any wealth, so the total amount of tax should remain the same.) From either perspective, the historical value of each cash flow is imputed using the risk-free rate, and the taxes (or credits) for past years are then grossed up with interest.

If we assume that all assets will be sold, all pension or life insurance claims will be paid out, and all dollars in bank accounts will be withdrawn,[213] then the retrospective capital tax will eventually tax the imputed value of all wealth in each year (unless there is an exemption for bank accounts with negative real rates of return). For example, assume that, at the beginning of 2015, a taxpayer has $100,000 in a savings account, $100,000 in Treasury bonds maturing in 2025, and a Picasso painting. For tax purposes, the taxpayer's 2015 wealth will be assessed as follows: the 2015 value of the savings account will be calculated as $100,000 of withdrawals are made; part of the value of the bonds will be imputed each time there is an interest payment, and the 2015 value will only be fully assessed upon receipt of the principal payment in 2025; and the 2015 value of the painting will be imputed when the painting is sold, say in 2035. At that point, the taxpayer will have paid the full retrospective capital tax on 2015 wealth, plus interest.

2. Death and the Estate Tax

This illustration raises one pressing question: what if the taxpayer never sells the painting? Then that portion of 2015 wealth will never be assessed and will escape from the tax. One possible response is that an asset that is never sold has no rate of return, and therefore is no reason for concern. This not a satisfactory answer, however, since the benefits

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purposes. For other assets, the value in year Y_1 for tax purposes is imputed when the asset is finally sold in year Y_2; for liquid accounts, the tax could be based on the actual value in Y_1 and assessed at the same time. One possible problem is that this might distort investors' choices between different assets subject to different tax methodologies. A more serious problem in the United States is that basing the tax on actual account balances could make it unconstitutional.

212 *See* Cunningham, *supra* note 188, at 495–96.

213 This does not assume that all bank accounts will eventually be closed. If we apply first-in, first-out accounting to the dollars in bank accounts, we are only assuming that a dollar deposited today will eventually be withdrawn.

of wealth go beyond simply liquidating it for consumption, as discussed in Part III.D. In addition, suppose the taxpayer leaves the painting to a grandson, who sells it many decades later. At that point, the painting's 2015 value will be imputed from the sale price and the grandson will have to pay tax on that value, with interest. Even though the government will be "made whole" at that point, the family's wealth will have grown at a pre-tax rate of return in the interim.[214] This is arguably a disadvantage of the retrospective tax compared to an annual wealth tax.

This is a problem with any realization-based tax system. The solution proposed here is to treat death as a realization event. Upon death, each of the decedent's assets is valued—an exercise already required by the estate tax, which exists in many advanced economies—and the assessed value is used in place of a true sale price to impute prior year values and calculate retrospective taxes. The person inheriting the asset then begins a new holding period, since the decedent's estate has paid taxes for the period until death. This approach does not create any administrative difficulties that do not exist with an estate tax. From a policy perspective, "settling up" a taxpayer's retrospective capital tax bill at death is appropriate. One might argue that a taxpayer who chooses not to sell assets has some right to defer the tax associated with those assets (and thereby to enjoy a pre-tax rate of return on capital)—already a debatable proposition—but even then it's hard to see why that right should transfer to the taxpayer's heirs. More importantly, imposing the retrospective capital tax at death serves the useful function of limiting the transfer of family fortunes across generations. Even if a wealthy person can largely avoid the tax by minimizing asset sales while alive, this provision ensures that the rate of return is retrospectively reduced by the full amount of the tax for all of those years, so heirs only benefit from an after-tax rate of return.[215]

Triggering realization at death also means that the retrospective capital tax can replace the estate tax. The primary purpose of the estate tax is to limit the transmission of inherited wealth, based on the principle that a person's right to enjoy accumulated wealth does not fully extend to heirs. The estate tax is also a tax of last resort; its existence tacitly acknowledges that the income tax does not do a good job at limiting returns on capital. The retrospective capital tax fulfills both of these objectives. Seen as a wealth tax, it imposes a constant annual burden on r, slowing the growth of great fortunes. Since it is imposed at death, it prevents wealth from accumulating at a pre-tax rate of return for more than one lifetime. Finally, the retrospective capital tax suffers from less political

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214 I discuss the estate tax later in this subsection.

215 To prevent the obvious tax avoidance strategy of giving away assets before death, gifts must also be treated as realization events.

baggage than the estate tax, which is routinely demonized as double taxation (since the decedent's wealth was supposedly taxed when it was received as income) or as a form of class warfare. By contrast, imposing the retrospective capital tax at death can be framed as an administrative means of collecting taxes that are due under a general system.[216]

3. Progressivity

The retrospective capital tax, like the annual wealth tax proposed by Piketty, should be progressive for two important reasons. First, families with relatively modest investments (compared to the truly wealthy) are unlikely to be able to save most of their investment returns. A large proportion of the wealth of upper middle class households often consists of equity in their homes, and they are consuming the return on those homes by living in them. Another significant proportion of "middle class" wealth is in retirement accounts that largely will be drawn down in retirement. Second, the largest fortunes tend to enjoy the highest rates of return of capital. This is true of university endowments, which see average real rates of return exceeding 8%, with the largest endowments earning the highest returns.[217] It must be true of billionaires as well, since their wealth appears to grow at a real rate of more than 6% per year, even after taxes and consumption.[218] The net effect of higher returns and lower consumption (as a proportion of returns) is that household wealth grows much faster for rich families than for poor families, and much faster for the super-rich than for the merely rich.

In the United States from 1980 to 2012, for example, real family wealth (after taxes and inflation) grew by 0.9% per year for the bottom 90% of the wealth distribution, 1.5% for the next 9% (from the 90th to the 99th percentile), 2.7% for the next 0.9% (from the 99th to the 99.9th percentile), and 5.4% for the top 0.1%.[219] These growth rates imply that wealth concentration is simply not a problem until we get near the top of the distribution, and there is little reason to impose any capital tax at all on families that are not getting significantly richer in the first place. For these reasons, the proposed retrospective capital tax has an annual exemption amount and then a schedule of increasing tax rates.[220] If the exemption is $1 million for 2015, for example, a family will not pay any retrospective tax for imputed 2015 wealth until the sum of that imputed wealth exceeds $1 million. This might not occur for several years, de-

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216 Triggering the retrospective tax at death does not pose a constitutional problem in the United States. Structurally, in this case it is an estate tax with a formula including not only asset values but also their holding periods.

217 *See* PIKETTY, *supra* note 7, at 448.

218 *See id.* at 435.

219 *See* Saez & Zucman, *supra* note 5, app. at tbl.B3.

220 For details, see *infra* Part V.D.6.

pending on the timing of investment returns, or (more likely) will never occur at all. Higher marginal rates at higher wealth thresholds can be treated the same way. With a large exemption, we can also eliminate existing tax breaks for pension plans and Individual Retirement Accounts (IRAs). Today, those preferences allow investment income within retirement savings vehicles to escape tax. Under the retrospective capital tax, no additional preference will be necessary because the vast majority of people will be exempt from taxes on investment income to begin with; in effect, all of their investments will behave like Roth IRAs (no deduction from labor taxes, but no taxes paid on withdrawal).[221]

4. Pass-Through Taxation

In the United States today, different types of business entities are taxed in different ways. A typical corporation pays income tax at the entity level and then may distribute some of its profits as dividends to shareholders, who pay individual income tax on those dividends. A sole proprietorship or a general partnership does not pay tax at the entity level; instead, its profits are "passed through" to its owners and appear as income on their individual tax returns. Some other types of business entities, such as S corporations and limited liability companies (LLCs), can elect to be taxed using the partnership model.

Compared to pass-through taxation, corporate taxation makes possible two types of tax rate arbitrage.[222] First, corporations can decide whether to pay dividends, which will force shareholders to pay income taxes, or to retain earnings, which allows shareholders to defer taxes until they take them in the form of capital gains in the future.[223] Second, if the shareholders of a closely-held corporation are also among its employees, they can pay themselves artificially low salaries, boosting corporate profits.[224] Consequently, for each dollar of salary that they give up, they (collectively) can take an additional dollar of dividends or reinvest the dollar, which should produce capital gains in the future. This is a profitable strategy if the tax rates on investment income are lower than the tax rates on labor income. This opportunity does not arise in a classic corporation with widely distributed ownership because any employees, even top executives, who lower their salaries will have to share the higher profits proportionately with all the shareholders. The proposed retrospective capital tax prevents the first type of arbitrage by eliminating the

221 If we need an incentive to encourage people to save for retirement, it could be delivered as a direct subsidy in the form of a partial government match rather than the tax preferences that exist today.

222 *See* JANE G. GRAVELLE & THOMAS L. HUNGERFORD, CONG. RESEARCH SERV., RL34229, CORPORATE TAX REFORM: ISSUES FOR CONGRESS 4–6 (2012).

223 *See id.* at 4–5.

224 *See id.*

benefit of deferral. However, it makes arbitraging between capital and labor income even more attractive, at least for people with relatively modest wealth. If their wealth is low enough to be exempt from the retrospective tax, they have a very strong incentive to characterize labor income as capital income.[225]

This implies that pass-through taxation—in which business profits are treated as ordinary income of the business owners—should be maintained for sole proprietorships, general partnerships, and similar entities.[226] For these businesses, profits should not be treated like stock dividends that are subject to the retrospective capital tax when distributed to shareholders, but instead should be treated as ordinary income. Sales of ownership stakes in these businesses, however, should be subject to the retrospective tax like any other capital dispositions. In effect, ongoing profits of closely-held businesses are treated as labor income of their owners under a traditional income tax, while capital gains from the sales of those businesses are subject to the retrospective tax.

Maintaining pass-through taxation will then motivate many small businesses to switch to corporate taxation, either by changing their tax election or by incorporating, so that they can characterize labor income as corporate profits. Therefore, corporate taxation will have to be prohibited for business owners who could benefit from this type of arbitrage. This category clearly includes businesses that are entirely owned by one or more employees, for whom every dollar of (taxed) labor compensation foregone is an additional dollar of (potentially untaxed) return on capital.[227] It should also include businesses that are mainly owned by employees or family members of employees, in order to prevent the more obvious ways to manipulate the system. In addition, tax authorities should retain the ability to audit whether any corporation is paying artificially low labor compensation for tax arbitrage purposes.

5. Tax Simplification

In addition to the estate tax, the retrospective capital tax can replace two other types of taxes.[228] The first is existing taxes on individual investment income. (Taxes on labor income should remain the same for

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225 That said, this problem already exists today. Households making less than $74,900 in 2015 pay no tax on qualified dividends or long-term capital gains, so they already have an incentive to shift labor income into corporate profits.

226 Limited partnership interests can be treated like stocks or bonds because limited partners provide no labor; hence, there is no labor-capital arbitrage opportunity.

227 At the other extreme, it is hard to see the CEO of a Fortune 500 corporation accepting lower labor compensation because the CEO will get back only a tiny share of the forgone compensation in the form of increased wealth (via share ownership).

228 S. Douglas Hopkins similarly recommends replacing existing taxes on investments with an annual wealth tax. Hopkins, *supra* note 42, at 1309.

the purposes of this proposal.) In principle, investments only need to be taxed once: whether they are taxed as a percentage of asset values or a percentage of returns, the result is to reduce the rate of return (and collect revenues for the government). A progressive, retrospective capital tax can shift the burden of capital taxation from families that are treading water to those that are continually becoming richer.

Second, and perhaps more controversially, the retrospective capital tax can replace the corporate income tax. The corporate income tax exists for two practical reasons. The first is to increase the progressivity of the overall tax system by attempting to tax owners of capital. The second is to defend the individual income tax against the arbitrage opportunities described above—reinvesting profits to defer taxes and characterizing labor income as capital income—by collecting at least some tax at the entity level. But from a theoretical perspective, the corporate income tax is unnecessary. If corporations do not pay taxes on their profits, their shareholders will receive larger dividends or larger capital gains, and therefore their income taxes will already rise under the existing tax system.[229]

As discussed above, the retrospective capital tax can be made as progressive as desired by increasing tax rates on wealthier households. In addition, the retrospective tax can nullify both tax avoidance strategies by eliminating the benefits of deferral and requiring pass-through taxation for closely held companies. For corporations themselves, as a result, the income tax can be eliminated. This will only increase the overall progressivity of the tax system. Corporate taxes today are effectively paid both by capital owners and by employees, in proportions that are difficult to measure.[230] To the extent that taxes fall on capital owners, they affect all investors equally, with no progressivity. Eliminating those taxes will make corporations more valuable by shifting the tax burden to the retrospective capital tax, which can be designed to be explicitly progressive.

6. Rates

This proposal is designed to be roughly revenue neutral, for three reasons. First, if taxes on capital do reduce savings and economic growth, then maintaining the current level of such taxes should make

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229 Corporate shares may be owned by tax-exempt entities. Without a corporate income tax, income distributed to those entities would escape taxation entirely. The more fundamental issue, however, is the existence of the tax exemption in the first place. Tax-exempt entities receive interest on bonds, for example, which already escapes taxation (since interest is tax deductible by the issuer).

230 *See* Uwe E. Reinhardt, *Who Ultimately Pays the Corporate Income Tax?*, N.Y. TIMES (July 23, 2010), http://economix.blogs.nytimes.com/2010/07/23/who-ultimately-pays-the-corporate-income-tax/.

matters no worse than they are today. Similarly, if the tax change does not increase the total tax burden, it should not have the overall effect of making people less willing to live in the United States; if some people will see their taxes rise, others will see their taxes fall. Finally, as discussed in Part VI, revenue neutrality makes tax reform more palatable from a political perspective.

Therefore, the retrospective tax will have to raise enough federal tax revenue to replace the corporate income tax, the estate tax, and all individual income taxes on capital, except for taxes on income that is passed through from businesses.[231] Table 1 displays the average amount of tax revenue brought in by these taxes over the 2002–2012 period, expressed as a percentage of GDP.[232] On average, income from capital made up 30.4% of the total income captured by the individual income tax. However, this figure includes income from sole proprietorships, partnerships, and S corporations, for which I propose to maintain pass-through taxation. The retrospective tax only needs to replace the tax collected on the remaining types of income from capital—taxable interest, dividends, rents, estate and trust income, and taxable pensions[233]—which together amount to 19.3% of taxable individual income. Assuming that income from capital is taxed at roughly the same rate as income overall,[234] the retrospective tax needs to replace 19.3% of existing individual income taxes, as well as all corporate taxes and estate taxes, for a total of 3.2% of GDP.[235] If 2012 had been an average year, the dollar value of these taxes would have been about $517 billion. (As it was, taxes in 2012

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231 States could choose to follow the federal government's lead and replace their existing taxes on capital with a lower-rate version of the retrospective capital tax, but state rates would vary.

232 This period includes all years after the 2001 tax cut and the 2001 recession for which data is provided by Saez and Zucman.

233 As discussed in Part V.D.3, pensions will be covered by the retrospective tax, not the existing income tax, so that tax revenue does need to be replaced. Because contributions to defined contribution pension plans will no longer be deductible, however, switching to the retrospective tax will increase income tax revenue; that increase is not reflected in these estimates. Therefore, this is a high estimate of the amount of revenue that will need to be replaced by the retrospective tax.

234 This seems plausible as a rough estimate: the tax rates on capital income are lower than on labor income, although this is offset by the fact that capital income goes disproportionately to high-income households. From 2002 through 2011, the average effective income tax rate (total taxes divided by total income) was 12.9%. *See All Individual Income Tax Returns: Sources of Income and Tax Items, Tax Years 1913-2011*, TAX POL'Y CTR. (Apr. 24, 2014), http://taxpolicycenter.org/taxfacts/displayafact.cfm?Docid=564. During this period, the maximum tax rate for qualified dividends and long-term capital gains was 15%; together, dividends and capital gains made up 79% of all capital income (excluding income from sole proprietorships, partnerships, and S corporations). *See id.*

235 As seen in Table 1, individual income taxes collect 7.1% of GDP. 19.3% x 7.1% = 1.4% of GDP.

were slightly lower than 3.2% of GDP, so the taxes that I propose to replace only brought in about $494 billion.)

TABLE 1
TAXES TO BE REPLACED BY RETROSPECTIVE TAX

	2002–2012 Average as Share of GDP	2012 Actuals (billions)
Corporate Income Tax	1.7%	$242
Estate Tax	0.2%	$14
Individual Income Tax (total)	7.1%	$1,132
Attributable to capital	2.0%	$344
Attributable to capital ex-business income	1.4%	$238

Note: Dollar figures are in current 2012 dollars. "Attributable to capital" includes net business income, taxable interest, dividends, net rents, estate and trust income, net realized capital gains, and taxable pensions; this is an overestimate because it encompasses all taxable pensions, including distributions of initial contributions. "Attributable to capital ex-business income" is the same except for net business income.[236]

In order to estimate the impact of different retrospective tax rates, we need to understand the overall wealth distribution. In a recent paper, Emmanuel Saez and Gabriel Zucman have compiled detailed estimates of wealth ownership in the United States, by asset class, for various segments of the distribution.[237] The overall wealth distribution in 2012 is summarized in Table 2. For example, households in the top 1%, outside of the top 0.5%, had *at least* $3,964,000 in net assets; had an *average* of $5,016,000 in net assets; and had a *total* of $4 trillion in net assets, or 7.3% of total household wealth.

[236] Saez & Zucman, *supra* note 5, app. at tbl.A5; OFFICE OF MGMT. & BUDGET, EXEC. OFFICE OF THE PRESIDENT, FISCAL YEAR 2015 HISTORICAL TABLES, BUDGET OF THE U.S. GOVERNMENT tbls.2.1 & 2.5 (2015), https://www.whitehouse.gov/sites/default/files/omb/budget/fy2015/assets/hist.pdf; U.S. BUREAU OF ECON. ANALYSIS, NATIONAL INCOME AND PRODUCT ACCOUNTS tbl.1.1.5 (2012), http://www.bea.gov/iTable/iTable.cfm?ReqID=9&step=1#reqid=9&step=3&isuri=1&903=5.

[237] *See* Saez & Zucman, *supra* note 5, at tbl.1.

TABLE 2
U.S. WEALTH DISTRIBUTION, 2012

Household Groups	Lower Threshold (Thousands)	Average Wealth (Thousands)	Avg. Real Growth Rate, 1980–2012	Total Wealth (Trillions)	Share
Bottom 90%	—	$87	0.9%	$12.6	22.8%
Top 10–5%	$662	$865	1.2%	$7.0	12.6%
Top 5–1%	$1,207	$1,958	1.6%	$12.6	22.8%
Top 1%–0.5%	$3,964	$5,016	2.3%	$4.0	7.3%
Top 0.5%–0.1%	$6,495	$10,738	3.0%	$6.9	12.5%
Top 0.1%–0.01%	$20,561	$41,155	4.3%	$6.0	10.8%
Top 0.01%	$111,100	$385,157	6.9%	$6.2	11.2%
All	—	$343	2.1%	$55.2	100%

Note: Dollar figures are in current 2012 dollars.[238]

Conceptually speaking, the tax base for the retrospective capital tax is the Total Wealth column of Table 2. Although the tax is based on asset values that are imputed from ongoing cash flows and final sales that will occur in the future, it is equivalent to a wealth tax on an ex ante basis[239] and thus should have approximately the same economic impact as a traditional wealth tax. However, the total wealth for each group of households must be adjusted because the retrospective tax will not be applied to income that is passed through from businesses such as proprietorships, partnerships, and S corporations. Table 3 shows the total wealth for each segment of the wealth distribution after making this adjustment,[240] as well as the proposed tax rates and the estimated amount of tax that would have been collected in 2012 using those rates.

238 Saez & Zucman, *supra* note 5, app. at tbls.A0, B1, B2 & B3.

239 *See* Auerbach, *supra* note 180, at 176.

240 Capital gains on such business assets will be captured by the retrospective tax. For estimating the retrospective tax base, I assume that 75% of the value of sole proprietorships, partnerships, and S corporations is represented by ongoing cash flows and 25% by capital gains; only the latter is included in the tax base in Table 3.

TABLE 3
RETROSPECTIVE TAX BASE AND REVENUES,
ESTIMATED FOR 2012

Household Groups	Avg. Real Growth Rate, 1980–2012	Wealth Captured by Retrospective Tax (Trillions)	Proposed Marginal Tax Rate	Estimated Revenue (Billions)	Average Effective Tax Rate
Bottom 90%	0.9%	$11.2	—	—	—
Top 10–5%	1.2%	$6.4	—	—	—
Top 5–1%	1.6%	$11.3	1%	$39	0.3%
Top 1%–0.5%	2.3%	$3.5	2%	$29	0.8%
Top 0.5%–0.1%	3.0%	$6.0	2%	$87	1.5%
Top 0.1%–0.01%	4.3%	$5.3	4%	$145	2.7%
Top 0.01%	6.9%	$5.8	4%	$223	3.9%
All	2.1%	$49.5		$523	1.1%

Note: Dollar figures are in current 2012 dollars. Estimates assume that the distribution of shares in S corporations is the same as for sole proprietorships and partnerships.[241]

As shown in Table 3, the bottom 95% of households pay no retrospective capital tax at all, while the 1% tax rate begins at the minimum amount of wealth to be in the top 5%—about $1.2 million in 2012 (see Table 2). The tax rate is 1% until the minimum threshold for the top 1% ($4 million), then 2% until the minimum threshold for the top 0.1% ($20.6 million), and 4% thereafter. At these rates, the retrospective tax would have collected an estimated $523 billion in 2012—essentially the same as the $517 billion that it needs to replace. The final column of Table 3 shows the average effective tax rate for each group of households—total taxes divided by total wealth subject to the tax.[242] Comparing this column to the first column, which shows the average growth rate of household wealth for each group, we see that the retrospective tax has no impact on the families whose wealth has grown most slowly, while it has the largest impact on those who have gained the most—which is exactly the point.[243]

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241 Saez & Zucman, *supra* note 5, app. at tbls.A0, A1, B1, B2, B3 & B10.

242 The average effective rate is lower than the marginal rate because, for example, households pay no tax on their first $1.2 million in wealth.

243 The first column is the average *after-tax* growth rate of household wealth, so the pre-tax rate is higher. In order for the retrospective capital tax to do a better job than the current tax system at reducing the inequality in wealth growth rates, it must be more progressive than the taxes that it replaces. In fact, the retrospective capital tax is likely to be significantly more progressive. Comparing estimated pre-tax and after-tax rates of return by wealth group in 2012, the bottom 90% paid an average of 1.4% of their wealth in taxes on capital (compared to 0% under the proposal), while the top 0.01% paid an average of 2.8% (compared to 3.9% under the proposal). Saez & Zucman, *supra* note 5, app. at tbls.B30 & B31.

These are only rough estimates, of course. We do not know how actual collections under the retrospective tax will compare to ex ante estimates based on the stock of household wealth.[244] I have also not attempted to model taxpayer responses to the retrospective tax, such as attempts by lower-bracket business owners to change their pass-through entities into corporations. Switching to a retrospective capital tax would introduce transition issues; even though tax collections should average 3.2% of GDP over the long term, they could be lower upon implementation. For example, investors may choose to sell assets with short holding periods, for which the tax liability will be considerably lower than under the current income tax.[245] Furthermore, there are many administrative details that would have to be worked out, but there is no particular reason to believe that they would be more complicated than the rules currently in place for investment income. This illustration demonstrates that it is possible to construct a schedule of retrospective tax rates that exempts 95% of the population from any tax on capital income, significantly reduces the growth of the largest fortunes, and raises enough revenue to replace most existing taxes on capital.

E. Summary

A retrospective capital tax, assessed as a tax on imputed wealth, can be an effective tool for reducing the rate of return on capital for the richest families and preventing the development of a society dominated by inherited wealth. Although it lacks the simplicity of an annual wealth tax, it has some major advantages: the retrospective capital tax does not require a catalog of all wealth or annual valuations of all assets, and it does not violate the U.S. Constitution. In the United States, it could be designed to exempt 95% of all households and impose a minimal burden (an average effective rate of 0.3%) on another 4%, while still raising enough money to replace the corporate income tax, the estate tax, and most individual income taxes on capital. Because the retrospective tax maintains the current level of taxes on capital, it does not change the incentive to save or the incentive to emigrate in the aggregate. Most importantly, by reducing rates of return for the very wealthiest house-

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244 If anything, we should expect actual collections to be higher than estimated because assuming that assets appreciate at the risk-free rate will, on average, produce imputed asset values that are higher than their actual historical values.

245 For example, if an investor buys an asset for $100 and sells it a year and a day later for $200, the current income tax liability is about $25 (assuming the maximum rate for long-term capital gains). Under the retrospective capital tax, even at a 4% rate, the tax liability would be $4. (Conversely, assets with a long holding period and lower gains will be taxed much more heavily under the retrospective tax.) Of course, the United States government is amply able to smooth out fluctuations in tax revenue by borrowing.

holds, it can slow or reverse the concentration of wealth in the hands of a small number of families.

VI. COULD IT HAPPEN?

A last objection to a new tax on capital is that it is politically implausible, especially in the contemporary United States, where anti-tax sentiment has been especially strong for the past four decades.[246] There are several reasons to believe, however, that a retrospective capital tax might be able to gain the political support necessary for passage.

People often underestimate the speed with which particular proposals can move from the fringes of political debate to the center. The most striking example in recent American politics is marriage equality. In 2004, same-sex marriage first became legal in the United States in Massachusetts. By the end of 2006, more than half of all states had passed constitutional amendments *banning* same-sex marriage; and yet, by the end of 2014, thirty-four states and the District of Columbia permitted same-sex marriages.[247]

Returning closer to our subject, the conventional wisdom is that it is overwhelmingly difficult to raise taxes in the United States today. Yet we have seen two major tax increases (and one smaller but significant one) in just over two decades. In 1993, President Bill Clinton's first budget act raised income taxes, primarily on the rich, with the top rate climbing to 39.6%.[248] In 2013, Congress and President Barack Obama agreed to increase the estate tax and to raise income taxes: the top rate on ordinary income increased from 35% to 39.6% (not counting payroll taxes) and the top rate on dividends and long-term capital gains increased from 15% to 20%.[249] In addition, in 2010, the health care reform bills increased total Medicare payroll taxes from 2.9% to 3.8% for high earners and imposed a new 3.8% Medicare tax on investment income for

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246 *See* SIMON JOHNSON & JAMES KWAK, WHITE HOUSE BURNING: THE FOUNDING FATHERS, OUR NATIONAL DEBT, AND WHY IT MATTERS TO YOU 68–103 (2012).

247 *A Timeline of Same-Sex Marriage in the U.S.*, BOSTON GLOBE (May 20, 2014), http://www.bostonglobe.com/2014/05/20/same-sex-marriage-over-time/mbVFMQPyxZCpM2eSQMUsZK/story.html.

248 *See* Omnibus Budget Reconciliation Act of 1993, Pub. L. No. 103-66, 107 Stat. 312 (1993).

249 *See* American Taxpayer Relief Act of 2012, Pub. L. No. 112-240, 126 Stat. 2313 (2013). Technically speaking, this might be considered a tax *decrease*, since the 2012 rates expired at midnight on December 31, 2012, when higher, Clinton-era rates went into effect; the new Act was passed on January 1, 2013 and signed the next day. Politically, however, both sides positioned the bill as a tax increase: Republicans in order to oppose it (in late 2012), President Obama to show that he was increasing taxes on the rich.

high-income households.[250] These examples show that it is feasible to raise taxes, particularly on the rich.

Since the purpose of a retrospective capital tax is to reduce the rate of return on capital, it does not have to increase revenues. Instead, as proposed above, the retrospective tax could replace the corporate income tax, the estate tax, and most individual income taxes on capital, making it considerably more palatable to the public and to Congress. A new tax to reduce existing taxes is a very different proposition from a new tax to pay for government in the abstract or to reduce the national debt, which remains a poorly understood abstraction. In an alternative design, a retrospective capital tax could be used to reduce taxes on labor income, which would shift the tax burden from people who are actively working ("entrepreneurs") to people with accumulated assets ("heirs").

A retrospective capital tax on large fortunes with an exemption amount of $1.2 million, as proposed above, would provoke the usual objections about "punishing success" and "class warfare." In fact, it would maintain the existing tax burden and shift it considerably upwards in the wealth distribution. At the end of the day, two factors figure into any voter's evaluation of a tax. One is how much the voter rationally expects to pay. On this score, a vast majority of Americans should be in favor of a retrospective capital tax with a large exemption, as outlined in Part V.D. In 2010, the median net worth of American households was only $77,300.[251] Social mobility in the United States is low compared to most other developed countries.[252] A person born in the middle wealth quintile only has a 9% chance of making it into the top wealth quintile.[253] The chances are obviously lower for an adult who is in the middle quintile. In other words, the likelihood that the median voter will ever be subject to the retrospective capital tax is small, as is the expected amount of tax the voter would have to pay even then (since families between the 95th and 99th percentiles pay an effective tax rate of only 0.3%).[254]

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250 *See* Health Care and Education Reconciliation Act of 2010, Pub. L. No. 111-152, 124 Stat. 1029 (2010).

251 *See* Jesse Bricker et al., *Changes in U.S. Family Finances from 2007 to 2010: Evidence from the Survey of Consumer Finances*, 98 FED. RESERVE BULL. 1, 1, 17 (2012).

252 *See Mobility, Measured*, ECONOMIST (Feb. 1, 2014), http://www.economist.com/news/united-states/21595437-america-no-less-socially-mobile-it-was-generation-ago-mobility-measured.

253 *See* Emily Beller & Michael Hout, *Intergenerational Social Mobility: The United States in Comparative Perspective*, 16 THE FUTURE OF CHILDREN 19, 27 (2006).

254 In addition, having enough wealth to be subject to the tax is an unlikely good outcome; on an *ex ante* basis, people should be willing to pay some taxes in that scenario in exchange for lower taxes in the more likely scenario that they will never have enough wealth to qualify.

The second factor is ideology. People do not always vote their economic interests, which makes the prospects for a retrospective capital tax seem less certain. The estate tax, for example, affects only a tiny fraction of people, yet is consistently unpopular in polls.[255] Undoubtedly, many people do not realize just how rich you have to be to pay the estate tax, or overestimate their chances of ever amassing such wealth. But it is also possible that many people simply believe that the estate tax is wrong in principle. Perhaps we have been conditioned to feel that it is legitimate to tax income but not to tax accumulated wealth.

Yet attitudes may be shifting. The financial crisis, the Occupy Wall Street Movement, and recent elections have considerably increased the prominence of economic inequality in public debate. Americans today have become less optimistic about their prospects for social mobility,[256] and therefore may be more open to taxes on large fortunes. In 2012, President Obama's proposal for a minimum 30% effective tax rate on households making more than $1 million per year received large majority support from the public and even garnered the support of fifty-one senators[257] before ultimately being defeated. The votes may not yet be there, but public sentiment appears to be moving in the right direction for higher taxes on capital.[258]

One final challenge to the proposed retrospective capital tax is its apparent complexity: people may find it difficult to understand a tax that is levied on past asset values estimated using the risk-free rate of return. The tax code is already extremely complex, often in ways that are difficult to understand without some understanding of tax theory. The taxation of original issue discount bonds, the limit on the deductibility of capital losses, and the preferred tax rate for qualified dividends are all policy choices that would be difficult to justify to the public in an open debate.

If using the risk-free rate to impute historical asset values proves too theoretical or academic for Congress to digest, an alternative could assume that assets appreciated at a constant annual rate, as described in Part V.A. For example, if a taxpayer buys an asset for $100 and sells it for $121 two years later, the tax system could assume that its value increased at a constant rate of 10% per year, so it was worth $110 in the intervening year. This approach is inferior to using the risk-free rate of

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255 *See* Kevin Drum, *What's the Deal with the Estate Tax?*, MOTHER JONES (Dec. 15, 2010), http://www.motherjones.com/kevin-drum/2010/12/whats-deal-estate-tax.

256 *See Mobility, Measured*, *supra* note 252.

257 *See* Frank Newport, *Americans Favor "Buffett Rule" by 60% to 37%*, GALLUP (Apr. 3, 2012), http://www.gallup.com/poll/153887/americans-favor-buffett-rule.aspx.

258 *See* Richard Lavoie, *Dreaming the Impossible Dream: Is a Wealth Tax Now Possible in America?* 27–29 (Univ. of Akron Sch. of Law Legal Studies Res. Paper Series, Paper No. 14-01, 2014), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2402978.

return because it permits taxpayers to lower their effective tax rates by making strategic choices of which assets to sell, but this is already a problem with the existing system of taxing capital gains.[259]

Like any major tax reform, the retrospective capital tax faces daunting political challenges. However, it could also draw political support because it simplifies the tax system and maintains the same overall level of revenues while shifting the tax burden upward toward the wealthiest families. The retrospective capital tax is not a political impossibility and merits consideration as a viable tool to slow the growth of inequality.

CONCLUSION

It is possible to disagree with Thomas Piketty's analysis, according to which the rate of return on investments will normally exceed the overall growth rate of the economy, enabling the very rich to blast off into a higher economic orbit and entrenching extreme levels of inequality in developed societies. But if we take seriously the problem of high and growing inequality, then taxes on capital are the logical response—and the retrospective capital tax proposed here can effectively slow down the accumulation of wealth while avoiding the most significant problems with an annual wealth tax or a traditional income tax.

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259 *See* Auerbach, *supra* note 180, at 168.