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# Piketty in America: A Tale of Two Literatures

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## I. INTRODUCTION

Rising high-end wealth concentration is one of the central issues of our time. Thomas Piketty has greatly advanced our empirical understanding of this phenomenon. In *Capital in the Twenty-First Century*,<sup>1</sup> he not only summarizes and expands on this empirical work, but offers an important theoretical apparatus for explaining it. This involves  $r > g$ , or the positive claim that the return to capital,  $r$ , will (at least for a very long time) exceed  $g$ , the national growth rate, leading to accelerating increases in high-end wealth concentration for an indefinite period.<sup>2</sup>

*Capital in the Twenty-First Century* is also strongly normative and prescriptive. Piketty does not merely observe, but decries, rising high-end wealth concentration, which he views in terms of the age-old conflict (predating even the Industrial Revolution) between capital and labor.<sup>3</sup> He proposes a global wealth tax, despite concern that this would “require a very high and no doubt unrealistic level of international cooperation,”<sup>4</sup> based on the hope that one could “move towards this ideal solution step by step, first at the continental or regional level and then by arranging for close cooperation between regions.”<sup>5</sup>

Perhaps the most common scholarly response to *Capital in the Twenty-First Century* has been to address its explanatory and predic-

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<sup>1</sup> Thomas Piketty, *Capital in the Twenty-First Century* (Arthur Goldhammer trans., Harvard Univ. Press 2014).

<sup>2</sup> *Id.* at 25.

<sup>3</sup> See *id.* at 39.

<sup>4</sup> *Id.* at 515.

<sup>5</sup> *Id.* at 516.

tive focus on  $r > g$ .<sup>6</sup> Our focus, however, is somewhat different. As welfarist tax scholars, we were struck by the significant gap (if not quite gulf) between the book's theoretical apparatus and normative prescriptions on the one hand, and prevailing approaches to distributional issues in recent decades' Anglo-American public finance/optimal income tax literature on the other. The gap is in part a product of the book's (very successful) attempt to find and engage a wide non-scholarly audience. Piketty is obviously conversant with existing literature, and has recently co-authored articles squarely within the optimal tax framework.<sup>7</sup> We respond to the book, however, not only because it has been widely and independently read, but also because it appears to reflect a different hierarchy of goals and methods than those that are most commonly found in the literature. This disjuncture suggests that comparing rival assumptions and claims might undermine or enrich (or perhaps some of each) the work on both sides of the divide.

In a nutshell, we adjudicate the "confrontation" (to the extent that it is one) as follows. Looking at the optimal income tax and related literatures in light of Piketty's work suggests the following:

- Concern about high-end wealth concentration, while readily accommodated by the optimal income tax literature, has been largely out of fashion until recently, at least in the United States. Piketty's empirical work suggests that we have paid too little attention to it. Moreover, if Piketty is correct about the causal significance of  $r > g$  (which remains unclear), then the literature has erred in so strongly emphasizing a framework based on "ability" or human capital<sup>8</sup> to explain rising high-end wealth concentration. That focus, in turn, may have unduly encouraged political rhetoric that equates great wealth either to moral desert—a linkage clearly not supported by the optimal income tax literature itself—or to claims about enormous benefit from everyone else (for example, on the ground that anyone who is extremely wealthy must be a "job creator").

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<sup>6</sup> See, e.g., Branko Milanovic, The Return of "Patrimonial Capitalism": A Review of Thomas Piketty's *Capital in the Twenty-First Century*, 52 J. Econ. Literature 519 (2014).

<sup>7</sup> See generally Thomas Piketty & Emmanuel Saez, A Theory of Optimal Inheritance Taxation, 18 Econometrica 1851 (2013); Thomas Piketty & Emmanuel Saez, A Theory of Optimal Capital Taxation (Nat'l Bureau Econ. Research, Working Paper No. 17989, 2012), available at <http://www.nber.org/papers/w17989>; Thomas Piketty & Emmanuel Saez, Optimal Labor Income Taxation, 5 Handbook of Public Economics 391 (Alan J. Auerbach, Raj Chetty, Martin Feldstein & Emmanuel Saez eds., 2013); Thomas Piketty, Emmanuel Saez & Stefanie Stantcheva, Optimal Taxation of Top Labor Incomes: A Tale of Three Elasticities, 6 Am. Econ. J.: Econ Pol'y, no. 1, Feb. 2014, at 230.

<sup>8</sup> See Louis Kaplow, The Theory of Taxation and Public Economics 245-48, 404-05 (2008).

- Various other emphases in the literature may also have adversely affected proper understanding of the costs of inequality. For example, while Piketty does not entirely specify exactly what is wrong with rising high-end wealth concentration, he mentions its adverse political economy effects and impact on opportunity.<sup>9</sup> One might add to this the impact on people's utility of relative, not just absolute, material attainment. The literature's frequent use of simplified, psychologically naïve models in which utility is purely a function of own consumption<sup>10</sup> may have contributed to under-appreciating the full consequences of rising high-end wealth concentration.

- The optimal income tax literature offers strong arguments against taxing savings (that is, capital).<sup>11</sup> However, if  $r > g$  is the main cause of rising inequality, and such inequality has adverse societal effects, then saving has negative distributional externalities that the literature has largely ignored. This could support a Pigovian argument for taxing savings, returns to saving, and/or bequests.

Next, what does the optimal income tax literature suggest with respect to Piketty's analysis? Here the main points that we see include the following:

- The literature's analysis of "saving" is far more fine-grained than Piketty's parallel analysis of "capital," supplying important nuance that could significantly modify core conclusions. For example, he criticizes the lifetime income hypothesis, which explains saving as a function of lifetime consumption smoothing, for ignoring its use to fund bequests.<sup>12</sup> But this might support distinguishing between the two uses of saving, rather than tarring both with the same brush. In addition, the literature breaks down Piketty's unitary  $r$  into multiple components, and suggests the possibility that much of the burden seemingly imposed on savers by a tax on capital income could be offset by portfolio adjustments (for example, making riskier pretax investments to offset the undesired insurance effect of taxing winners more than losers).<sup>13</sup> This concern turns out to be less pertinent to the wealth tax that Piketty proposes than to capital income taxation (which he also supports). However, a wealth tax would face special problems and challenges of its own, including the possibility that, in

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<sup>9</sup> See Piketty, note 1, at 1.

<sup>10</sup> E.g., Kaplow, note 8, at 53-57.

<sup>11</sup> See *id.* at 222.

<sup>12</sup> Piketty, note 1, at 381-82.

<sup>13</sup> Kaplow, note 8, at 239.

the United States, it would be held unconstitutional if enacted at the federal level.<sup>14</sup>

- While Piketty emphasizes the role of  $r > g$  in increasing high-end wealth concentration, he agrees that, at least in the United States, the starring role in recent years has been played by rising wage inequality, and thus in effect human capital.<sup>15</sup> We show that this observation may both complicate and require significant modification of Piketty's analysis of how to address inequality.

The rest of this Article proceeds as follows. Part II compares Piketty's view of capital, which uses a society-wide, ex post perspective, to the standard tax policy analysis of saving, which focuses primarily on the ex ante decisions of potential savers. Part III discusses the relevance for Piketty's analysis of the literature's more nuanced treatment of savings and capital income. Part IV contrasts capital income taxation and wealth taxation, both in their economic effects and under U.S. constitutional law. Part V discusses the role of human capital with respect to rising high-end wealth concentration, and shows how its heterogeneity can affect the optimal choice of tax instruments. Part VI offers a brief conclusion.

## II. THE RETURN OF "CAPITAL"

### A. "*Capital*" Versus "*Saving*" and Two Distinct Traditions

What's in the choice of a word? Sometimes, the answer is: quite a lot. Indeed, a matter of word choice helps to illuminate a major divide between Piketty's work and that of a substantial swath of recent public economics literature—including, for example, much of the U.S. and English writing over the last four decades on optimal income taxation and fundamental tax reform.

Consider the nouns "capital" and "savings," which in some usages are close to synonymous, denoting the assets one possesses. However, perhaps reflecting that "savings," unlike "capital," is a verbal noun—that is, derived from a verb ("to save"), the two words have very distinct connotations in practice. One therefore can learn something from the fact that Piketty primarily addresses "capital," whereas the optimal income tax, fundamental tax reform, and associated tax policy literatures primarily address "saving" (generally without the second "s," thus fully equating the noun to the verb's present participle).<sup>16</sup>

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<sup>14</sup> See U.S. Const. art I, § 9, cl. 4 (banning progressive direct taxation); see also Erik M. Jensen, Symposium: Did the Sixteenth Amendment Ever Matter? Does it Matter Today?, 108 Nw. U. L. Rev. 799, 905-15 (2014); Section IV.B.

<sup>15</sup> Piketty, note 1, at 304-10.

<sup>16</sup> Compare Kaplow, note 8, at 162-64 (using "savings" to refer to individual's assets), with id. at 221-48 (using "capital" as a synonym for investments). This distinct word choice

Piketty's book, of course, is entitled *Capital in the Twenty-First Century*. Chapter 1 opens with the following description of strife:

On August 16, 2012, the South African police intervened in a labor conflict between workers at the Marikana platinum mine near Johannesburg and the mine's owners: the stockholders of Lonmin, Inc., based in London. Police fired on the workers with live ammunition. Thirty-four miners were killed. As often in such strikes, the conflict primarily concerned wages . . . .

This episode reminds us, if we needed reminding, that the question of what share of output should go to wages and what share to profits—in other words, how should the income from production be divided between labor and capital?—has always been at the heart of distributional conflict.<sup>17</sup>

This passage helps to signal the basic normative thrust of the book, in two important senses. First, Piketty provides an exhaustive and important description of capital accumulation across Western economies. But he does not examine in depth the decision to save. The pros and cons of saving versus spending, or investing in a risky or safe asset, essentially occur off-camera. Instead, he emphasizes the returns to investment that have been realized, and the resulting effects on the distribution of income and wealth. His perspective is thus primarily *ex post*, rather than *ex ante*.

Second, the above passage helps to show that “capital,” as used in the book, is not just a thing that each of us may have in varying degrees, but also the signifier for a particular social group. “Labor” and “capital” are two contending groups of individuals, whose battles have “always been at the heart of distributional conflict,” no less in the era of landlord versus peasant than that of stockholder versus worker.<sup>18</sup> The central problem, for Piketty, is that labor's share of the economic pie has been shrinking for decades and seems likely to continue doing so, calling for a sustained policy response that might include or even emphasize progressive income taxation and wealth taxation.

What about the optimal income tax, fundamental tax reform, and associated tax policy literatures? While these terms embrace a broad and sprawling range of writings, we believe it is fair to say that they generally differ from *Capital in the Twenty-First Century* in both se-

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is not just an artifact of Arthur Goldhammer's graceful and fluent translation of *Capital in the Twenty-First Century* from the original French. “Capital” also is generally the word of choice in the original, whereas we gather that “épargne” would denote “saving.”

<sup>17</sup> Piketty, note 1, at 39 (footnote omitted).

<sup>18</sup> *Id.*

mantics and substance. Starting with the former, before we get to the differences in the latter, in these literatures the term “capital” generally plays a far smaller role than in Piketty’s book. It is true that one frequently sees “capital” being used as an adjective—for example, as the modifier in “capital income,” “capital assets,” and “capital gains.” As a noun, however, capital’s usage in these literatures is generally more limited. One may read, for example, that the greater mobility of “capital” than “labor” in the contemporary global economy is potentially affecting the incidence of the corporate income tax.<sup>19</sup> But the treatment of these two complementary or competing productive inputs, the relationship between which concededly can have significant distributional implications, generally is not accompanied by treating them as the embodiments of rival social groups.

There is also an extensive public economics literature, which Piketty criticizes and which we discuss below, concerning “human capital.”<sup>20</sup> This literature depicts wages, no less than shareholders’ profits, as involving a kind of return on capital. It thus offers further aid and comfort to the view that “labor” and “capital” are not nearly as distinct, either economically or socially, as the above quotation from *Capital in the Twenty-First Century* may appear to suggest.

As might be expected from the terminological differences, the various tax policy literatures mainly emphasize ex ante decisions as to saving, as distinct from Piketty’s primary focus on ex post outcomes. And instead of focusing on the battle between “labor” and “capital,” they emphasize the vertical distributional issues that arise with respect to high-earners as compared to low-earners.<sup>21</sup> In the optimal income tax literature, the members of both these two groups are at least potentially both workers and savers, even if high-earners tend to save not just absolutely but proportionately more. Indeed, this difference in degree as to saving may be deemed so second-order, as compared to the differences in ex ante “ability” that lead to observed differences in ex post earnings, that James Mirrlees’ classic article initiating the optimal income tax literature uses a one-period model in which there is no wealth, or saving, or capital, or capital income.<sup>22</sup> Instead, the people in Mirrlees’ model differ only in ability, causing them to

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<sup>19</sup> See, e.g., Jennifer Gravelle, *Corporate Tax Incidence: Review of General Equilibrium Estimates and Analysis*, 66 Nat’l Tax J. 185, 185 (2013).

<sup>20</sup> Piketty, note 1, at 45-47.

<sup>21</sup> See, e.g., Joel Slemrod & Jon Bakija, *Taxing Ourselves* 59 (4th ed. 2008) (“[V]ertical equity . . . concerns the appropriate tax burden on households of different levels of well-being. If for now we measure well-being by income, vertical equity is about how much of the tax burden should be shouldered by a family with \$200,000 of income, versus a family with \$50,000 of income versus a family with \$10,000 of income. . .”).

<sup>22</sup> J.A. Mirrlees, *An Exploration in the Theory of Optimum Income Taxation*, 38 Rev. Econ. Stud. 175, 175 (1971).

achieve different levels of utility (derived from market consumption plus leisure), and thereby supplying the normative motivation for a tax that benefits low wage-earners relative to high wage-earners.

While Mirrlees omitted time, and therefore capital or savings, from the initial model, the various tax policy literatures have in fact devoted a great deal of attention to savings decisions and their relevance to distributional policy. A useful starting place from which to understand these literatures, with their *ex ante* focus and lack of a distinction between groups denominated as “labor” and “capital,” is Irving Fisher’s famous tale of three brothers, first set forth in a 1906 book on capital income.<sup>23</sup> Each brother inherits \$10,000.<sup>24</sup> The first buys a perpetual annuity, yielding \$500 per year since the interest rate is 5%. The second puts his bequest in trust so that it can earn 5% per year. In about fourteen years, when the amount in the trust has doubled to \$20,000, he buys a perpetual annuity of \$1000 per year. The third, “being of the spendthrift type,” buys an annuity of \$2000 per year that lasts just under six years before expiring.<sup>25</sup> Fisher demonstrates that, under an income tax as we normally interpret the term to include capital income, the spendthrift will pay the least amount of tax over time, while the second brother, who saved the most, consequently pays the most.<sup>26</sup>

Fisher views such a system as “clearly unjust.”<sup>27</sup> Each brother is presented with the identical opportunity and takes the path he sees as most conducive to happiness. There is no basis for saying that one is better-off than another, or for discriminating among the three through the imposition of a tax on capital income.<sup>28</sup> Fisher notes that, under what we would call a consumption tax in which the tax rate does not vary over time, all three brothers would end up being taxed the same, in terms of present value over the infinite horizon that one measures *ex ante*. This observation has prompted an immense Anglo-American tax policy literature on the choice between income and consumption taxation—not always accepting Fisher’s conclusion, but commonly agreeing that his example, or similarly framed comparisons between

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<sup>23</sup> Irving Fisher, *The Nature of Capital Income* (1906).

<sup>24</sup> *Id.* at 249-53.

<sup>25</sup> *Id.* at 249.

<sup>26</sup> *Id.* at 253.

<sup>27</sup> *Id.*

<sup>28</sup> Fisher further concludes from the example that capital income is not really income, and that “income” should be interpreted for tax purposes as not including capital income. *Id.* at 254-55. Henry Simons responds that, whether one accepts the logic of Fisher’s argument or not, as a matter of semantics “it seems hardly a debatable proposition” that the word “income,” in common usage, includes capital income. Henry C. Simons, *Personal Income Taxation: The Definition of Income as a Problem of Fiscal Policy* 98 (1938).



otherwise similar spenders and savers, offer a crucial reference point for the analysis.<sup>29</sup>

### *B. The Permanent Income Hypothesis and Its Broader Implications*

In Fisher's tale, the three brothers showed different preferences for saving. However, a given individual may also make savings decisions that vary across time. Two closely related models in the economic literature—known as the theories of permanent income<sup>30</sup> and lifetime consumption smoothing,<sup>31</sup> but often jointly cited as establishing the life-cycle hypothesis or model<sup>32</sup>—provide substantial insight into how one might model this behavior.<sup>33</sup>

The basic set-up under the life-cycle hypothesis is merely a more complicated version of the standard two-goods consumer choice model that one finds in introductory economics textbooks.<sup>34</sup> Say that you have \$ $X$  to spend either on pizza or clothing. Each has a market price, and you have a utility function for each, generally featuring declining marginal utility (that is, you do not value the second slice of pizza as highly as the first). Given the budget constraint of having only \$ $X$  available, you can only buy so much of each, and getting more of either comes directly at the expense of getting as much of the other.

As a rational actor, you buy whatever combination of pizza and clothing—among those available given their prices and your budget line—would offer you the greatest total utility. This involves equalizing the marginal utility that you derive from the last unit purchased of each. For example, suppose that, at a given budget allocation between the two items, your last unit of pizza would offer greater marginal utility than your last unit of clothing. With declining marginal utility for both items, this implies that you could increase your total utility by increasing pizza purchases, at the expense of clothing purchases, until

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<sup>29</sup> 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 (2006).

<sup>30</sup> See Milton Friedman, *A Theory of the Consumption Function* 20-37 (1957).

<sup>31</sup> See Franco Modigliani & Richard Brumberg, *Utility Analysis and the Consumption Function: An Interpretation of Cross-Section Data*, in *Post Keynesian Economics* 388-436 (Kenneth K. Kurihara ed., 1993); see also Angus Deaton, *Understanding Consumption* 214 (1992) (describing the permanent income and life-cycle hypotheses as “well-defined special cases of the general theory of intertemporal choice”); Daniel Shaviro, *Beyond the Pro-Consumption Tax Consensus*, 60 *Stan. L. Rev.* 745, 763-66 (2007) (discussing the permanent income tax hypothesis and lifetime consumption smoothing).

<sup>32</sup> See, e.g., Lee Anne Fennell & Kirk J. Stark, *Taxation over Time*, 59 *Tax L. Rev.* 1, 6 (2005).

<sup>33</sup> The discussion in this and the next few paragraphs is adapted from that in Daniel Shaviro, *Multiple Myopia, Multiple Selves, and the Under-Saving Problem*, 47 *Conn. L. Rev.* (forthcoming 2015), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2469269](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2469269).

<sup>34</sup> See, e.g., Jonathan Gruber, *Public Finance and Public Policy* 26-35 (4th ed. 2013).

you reached the point where your marginal utilities from consuming the two goods had been precisely equalized.

To turn this into the life-cycle model, suppose that your choice lies between present consumption and future consumption, rather than pizza and clothing. Suppose further that you know your earnings for all periods, including the future, and that you can freely borrow and lend across periods at the market interest rate. That is, in addition to being able to save and invest current earnings to fund future consumption, you can also borrow against future earnings to fund current consumption. Finally, suppose that declining marginal utility applies separately to consumption in each period. Thus, for example, if today and the date arising one year from today are otherwise similar, you would greatly prefer having one dinner each time to having two dinners on one of the nights and none on the other.

Once again, the aim is to maximize total utility by equalizing the marginal utility that you ascribe to the last unit of consumption in each period. While present consumption and future consumption therefore take the place of pizza and clothing, the element of time adds several complications. One now must consider the relevance of pervasive uncertainty—applying, for example, to expected future earnings, consumption needs, or preferences, and life expectancy, as well as to future interest rates. Also, the fact that real interest rates generally are positive means that forgoing a dollar of consumption today can fund more than a dollar of consumption in the future. But on the other hand, a positive rate of time preference (for example, from impatience) can cause one to prefer consuming sooner.

A “weak” version of the life-cycle model asserts only that, with farsightedness plus capital markets, people’s consumption choices should be entirely “shaped by tastes and by life-cycle needs, and not by the temporal pattern of life-cycle labor income.”<sup>35</sup> “Stronger” versions note, however, that contemporary life expectancies go well past typical retirement ages, generally causing significant life-cycle saving to be optimal.<sup>36</sup>

The life-cycle model, like Fisher’s tale of three brothers, can be viewed as suggesting that there is no normative basis for taxing income from capital. The owner of capital is merely the late-middle-aged version of the younger saver or older spender. At the individual level, wealth is an epiphenomenon, and taxing wealth merely makes it harder for the individual to smooth consumption and maximize utility.

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<sup>35</sup> Deaton, note 31, at 26; see also Fennell & Stark, note 32, at 8 (“[A]t least one interpretation of the life-cycle hypothesis [that is, that by Deaton] suggests that its real contribution lies in its theoretical decoupling of consumption patterns from income patterns . . .”).

<sup>36</sup> See, e.g., Fennell & Stark, note 32, at 9.

The life-cycle model suggests that ability to pay is best measured on a lifetime, rather than annual, basis. That is, individuals with higher lifetime income or consumption ought to pay more tax, but the presence of a bulge in capital income due to consumption smoothing ought to be ignored.

All this, of course, is under the assumptions of a particular model that is not entirely accurate as a description of reality. For example, extensive empirical evidence suggests that most people do not entirely, or perhaps even extensively, follow the model's prescriptions.<sup>37</sup> Moreover, people may find it difficult or even impossible to borrow against future earnings, potentially making current-period earnings and nonhuman capital more distinctively important to one's welfare than the model suggests. Also, as Piketty emphasizes and as we further discuss below, the life-cycle model, at least in its simplest versions, wholly ignores inheritance.<sup>38</sup>

In our view, however, all this does not mean that the model is wholly irrelevant and should be ignored. Rather, it means that the significance of the real world departures from its descriptive accuracy must be evaluated and folded into the analysis. For example, insofar as one observes life-cycle saving plus bequests, one should evaluate the normative significance of the latter, as well as the former, and adjust one's choice of favored policy instruments to treat them differently, if feasible and indicated by the analysis.

### *C. Efficiency of Taxing Capital Income: The "Fundamental Tax Reform" Debate Concerning Income Taxation and Consumption Taxation*

If one relied solely on Fisher's tale of three brothers plus the life-cycle model, one might conclude that there was no normative basis for taxing capital or the returns that it generates. What happens, however, if one adds efficiency to the analysis? The answer, under a stylized, though important, commodity tax model, is that efficiency considerations yield the same result: no tax on capital income. The reason for this, adverted to above, is that taxing income from capital distorts intertemporal consumption. It discourages savings and favors earlier over later consumption. Indeed, paying income taxes on the return to savings that you eventually spend is arithmetically

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<sup>37</sup> See, e.g., B. Douglas Bernheim & Antonio Rangel, Behavioral Public Economics: Welfare and Policy Analysis with Nonstandard Decision-Makers, in Behavioral Economics and Its Applications 7, 20-27 (Peter Diamond & Hannu Vartiainen eds., 2007); Peter Diamond & Emmanuel Saez, The Case for a Progressive Tax: From Basic Research to Policy Recommendations, *J. Econ. Persp.*, Fall, 2011, at 165, 183.

<sup>38</sup> Piketty, note 1, at 384; see Section II.D

equivalent to paying a rising sales tax rate on the increasingly deferred consumption.<sup>39</sup> For example, with a 40% tax rate on savings and a 5% pretax return, consumption in Year 2 faces the equivalent of a 2% sales tax on top of the Year 1 levy.<sup>40</sup> This extra sales tax-equivalent levy rises to 6.4% if you consume in Year 4, and to about 80% if you wait for thirty years to consume<sup>41</sup>—a plausible time frame for retirement saving.

How should one think about unequal commodity taxation of this kind? An important 1976 article by Anthony Atkinson and Joseph Stiglitz suggests that, under certain generally plausible assumptions, it is efficient to tax all commodities, whenever consumed, at the same rate.<sup>42</sup> In reviewing the relevance of this conclusion to taxing savings, it is useful to start by noting that a wage tax is equivalent to a uniform commodity tax, so long as one defines “wage” broadly enough to include all returns to labor (even if not formally denominated as wages). After all, wages are used to purchase commodities, and the wage tax rate does not vary based on which items one purchases. For this reason, the core efficiency concern raised by a uniform commodity tax, like that for an explicit wage tax, is that it discourages work.

Taxing particular items unequally (such as those consumed later) merely adds secondary distortions of commodity choice on top of this basic labor supply distortion—not in lieu of it. After all, one still must work in order to fund the savings that ultimately pay for future consumption, no less than to fund immediate consumption.<sup>43</sup> For workers who would use their wages to fund deferred consumption, the interim tax on saving reduces the payoff that they can anticipate, no less than would explicitly imposing an extra wage tax in such cases. Moreover, even if placing a higher tax rate on deferred rather than immediate consumption would desirably increase the tax system’s progressivity—for example, because high-income individuals defer consumption more than other individuals—one could achieve the same degree of progressivity, with lesser inefficiency, by simply making high-end wage tax rates more progressive, whether the money was used to fund intermediate saving or not. Under this model, the optimal tax on capital income is zero.

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<sup>39</sup> Bankman & Weisbach, note 29, at 1419.

<sup>40</sup> *Id.*

<sup>41</sup> *Id.*

<sup>42</sup> A.B. Atkinson & J.E. Stiglitz, *The Design of Tax Structure: Direct Versus Indirect Taxation*, 6 *J. Pub. Econ.* 55, 64 (1976). The underlying assumptions include that none of the commodities is a relative complement for leisure, as distinct from work and market consumption. *Id.* at 56.

<sup>43</sup> In the case of a bequest, the worker may have been someone other than the consumer. We discuss bequests below in Section II.D.

While the end result of uniform commodity taxation can be achieved via either wage taxation (for example, income taxation that excludes returns to saving) or consumption taxation,<sup>44</sup> the latter is often considered superior in practice, for administrative reasons. Use of a consumption tax model eliminates the need to identify economic wages that were labeled as capital income. It also better handles mixed capital-labor returns, and automatically reaches economic rents, which in theory can be taxed without inefficiency even if one considers them purely returns to capital.

There is dispute in the literature regarding the significance of complicating considerations that might cast doubt on the conclusion drawn with respect to income and consumption taxation.<sup>45</sup> Despite the intertemporal neutrality argument for not taxing capital income, there may also possibly be good reasons for taxing it. An example is the argument that saving is a tag of high ability.<sup>46</sup> In addition, it has been noted in the new dynamic public finance literature that savings, by cushioning the income shock from reducing one's labor supply, can create a negative revenue externality with respect to taxing labor income, while also undermining the use of a labor income tax base to gauge people's ability.<sup>47</sup> Indeed, for what it is worth, neither Atkinson nor Stiglitz interprets "Atkinson-Stiglitz 1976"<sup>48</sup> as requiring support for a consumption tax. Atkinson has called the intertemporal neutrality argument for consumption taxation "not very convincing" in light of second-best considerations,<sup>49</sup> and Stiglitz supports strengthening and expanding the existing income tax.<sup>50</sup> Nonetheless, the

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<sup>44</sup> Tax rate differences between years, however, can make these instruments nonequivalent.

<sup>45</sup> See, e.g., David Gamage, *How Should Governments Promote Distributive Justice? A Framework for Analyzing the Optimal Choice of Tax Instruments*, 68 *Tax L. Rev.* 1 (2014); Chris W. Sanchirico, *A Critical Look at the Economic Argument for Taxing Only Labor Income*, 63 *Tax L. Rev.* 867 (2010); Shaviro, note 31, at 786-88.

<sup>46</sup> See Peter Diamond & Johannes Spinnewijn, *Capital Income Taxes with Heterogeneous Discount Rates*, *Am. Econ. J.: Econ. Pol'y*, Nov. 2011, at 52, 52; Emmanuel Saez, *The Desirability of Commodity Taxation Under Non-Linear Income Taxation and Heterogeneous Tastes*, 83 *J. Pub. Econ.* 217, 227-28 (2002).

<sup>47</sup> See, e.g., Mikhail Golosov, Aleh Tsyvinski & Iván Werning, *New Dynamic Public Finance: A User's Guide*, in 21 *NBER Macroeconomics Annual 2006*, at 317 (Daron Acemoglu, Kenneth Rogoff & Michael Woodford eds., 2007), available at <http://www.nber.org/chapters/c11181.pdf>.

<sup>48</sup> Atkinson & Stiglitz, note 42.

<sup>49</sup> A.B. Atkinson & A. Sandmo, *Welfare Implications of the Taxation of Savings*, 90 *Econ. J.* 529, 529 (1980); see also Alan Auerbach, *Taxation and Saving—Retrospective*, 125 *Econ. J.* 464 (2015) (reviewing the model deployed by Atkinson and Sandmo and noting that the reasons for taxing capital income at a positive rate may include its serving as a substitute or proxy for age-based taxation).

<sup>50</sup> See, e.g., Joseph E. Stiglitz, *Reforming Taxation to Promote Growth and Equity* (2014), available at [http://rooseveltinstitute.org/sites/all/files/Stiglitz\\_Reforming\\_Taxation\\_White\\_Paper\\_Roosevelt\\_Institute.pdf](http://rooseveltinstitute.org/sites/all/files/Stiglitz_Reforming_Taxation_White_Paper_Roosevelt_Institute.pdf).

higher tax rate on deferred consumption that an income tax imposes surely requires affirmative justification of some kind. Moreover, the issue is not progressivity as such, given that rate graduation can be adjusted in light of the tax base, unless one has particular grounds for arguing that an income tax will be more progressive in practice (for example, for political economy reasons).

The analysis thus far has rested on assuming that all wealth is eventually consumed—and indeed, during the saver’s lifetime, since we have postponed any consideration of bequests. Some argue, however, that viewing saving as merely deferred consumption is “sadly inadequate” (in Henry Simons’ words)<sup>51</sup> given the “security, power, and social standing” that it affords while one continues to hold it.<sup>52</sup> However, wealth only derives value from the fact that it can be spent. Deferring collection of the tax until it is spent does not directly mitigate the burden imposed, given that it still reduces the wealth’s purchasing power.<sup>53</sup>

In addition, a claim that wealth-holding, given its subsidiary advantages, conveys greater benefits than immediate consumption raises the question of whether the latter might have subsidiary advantages as well—as it might, for example, in a Veblenesque “conspicuous consumption” scenario,<sup>54</sup> or from its enabling one to keep up with the Joneses. What is more, if people with the same labor income face the same opportunity set with respect to consuming now versus later, then viewing the higher saver as better-off over time would appear to amount to saying that she has made better choices. This is at odds with the usual rational choice/consumer sovereignty line of argument in economics. While that is not a dispositive objection given the extensive evidence that people may indeed choose poorly,<sup>55</sup> arguably it converts the question into that of whether savings should be taxed on the ground that it is evidence of ability.<sup>56</sup> That argument has potential force, but should be evaluated by examining how people actually

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<sup>51</sup> Simons, note 28, at 97.

<sup>52</sup> E.g., Liam Murphy & Thomas Nagel, *The Myth of Ownership: Taxes and Justice* 114 (2002).

<sup>53</sup> See Daniel N. Shaviro, *Replacing the Income Tax with a Progressive Consumption Tax*, 103 *Tax Notes* 91, 105-06 (Apr. 5, 2004).

<sup>54</sup> See Thorsten Veblen, *The Theory of the Leisure Class* 43-62 (Candace Ward ed., Dover Publ’ns, Inc. 1994) (1899) (noting that certain types of consumption can advertise the consumer’s superior standing).

<sup>55</sup> On failures of rational choice in savings behavior, see generally Bernheim & Rangel, note 37; Shaviro, note 33.

<sup>56</sup> See Diamond & Spinnewijn, note 46, at 52; Saez, note 46, at 227-28.

make savings decisions,<sup>57</sup> rather than through ad hoc appeal to wealth-holding's subsidiary advantages.

Now suppose one acknowledges the point that much wealth may be held for a long period, arithmetically greatly exceeding the lifespan of a given individual, and having no definite endpoint. Does this weigh against viewing a consumption tax as fully bearing on unspent wealth, with deferral having no effect on the present value of the liability?

The simple mathematics of deferral would suggest not. After all, so long as the same consumption tax rate remains in place, the deferred tax liability keeps growing at a market interest rate. It reduces the wealth's purchasing power, and is in effect a government asset. Arguing nonequivalence would seemingly have to rest on such possibilities as the consumption tax rate's potentially changing in the future (causing the deferral to have option value) or taxpayers finding a way to eliminate it (such as through expatriation). These are certainly relevant possibilities, but they merely suggest modifying the analysis as needed, rather than jettisoning it altogether.

If paying tax currently, rather than in the future, were so important, in circumstances where deferral does not affect the present value of the liability, this would have apparent implications for how one views the simple market transaction of borrowing. Suppose two wealthy individuals each earn \$100 million, in circumstances where either a 30% consumption tax or a 30% wage tax is permanently in place. The one who faces the consumption tax has \$100 million on hand, but faces a deferred tax liability worth \$30 million. The one who faces the wage tax has only \$70 million, but no deferred tax liability. If the latter used a bank loan to pay the \$30 million tax, with the loan terms providing for repayment as she spent money on consumer transactions, then the only difference in their circumstances would be the identity of the lender. Perhaps this would actually matter, for political economy reasons (since government creditors may behave differently than private creditors). But this again suggests incorporating political economy considerations into one's analysis of deferral, rather than ignoring deferred tax liabilities.

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<sup>57</sup> See, e.g., Raj Chetty, John N. Friedman, Soren Leth-Petersen, Torben H. Nielsen & Tore Olsen, *Active Vs. Passive Decisions and Crowdout in Retirement Savings Accounts: Evidence from Denmark*, 130 Q.J. Econ. (forthcoming 2015) (analyzing research evidence that suggested that only 15% of Danish workers were "active savers" who responded to incentives and sought to optimize their overall savings positions); Shaviro, note 33 (arguing that such evidence might support Saez's view of saving as evidence of ability, but that a fuller evaluation would be aided by greater knowledge than we now have regarding how the taxation of savings affects labor supply decisions by inattentive "passive savers" who appear not to be consistently optimizing their savings choices).

*D. Gifts and Bequests*

The life-cycle model does not directly address inter vivos gifts and bequests. Piketty criticizes that model as counterfactually suggesting “that “everyone aims to die with little or no capital,”<sup>58</sup> and argues that it overlooks the fact that “saving for retirement is only one of many reasons—and not the most important reason—why people accumulate wealth.”<sup>59</sup> Piketty shows that inheritance played an important role in the nineteenth century, and predicts it will again do so in the twenty-first century.<sup>60</sup>

Does this critique of the life-cycle model extend to the policy prescriptions associated with it? In particular, does the fact that a given household’s savings may not be consumed for one or more generations, or indeed at any definite time, require modifying the analysis thus far of how the tax system should treat saving? To address this question, we must first step back and ask how donative transfers—that is, bequests and inter vivos gifts—fit conceptually into an income or consumption tax approach.<sup>61</sup>

In practice, income tax systems generally permit donative transfers to be received tax-free by recipients, although not to be deducted by donors.<sup>62</sup> Consumption tax systems, such as value-added taxes (VATs), likewise treat the receipt of cash as tax-free, although the recipient presumably will be taxed upon spending it.<sup>63</sup> The result in each case is to tax consumption once (under an income tax, by reason of taxing the receipt of the income that funded the transfer).

Henry Simons, however, famously argued that donative transfers should be treated as yielding taxable income to recipients, whom they clearly enriched no less than any other valuable receipt.<sup>64</sup> He also thought the transfers should remain nondeductible to donors, who made them voluntarily, presumably as consumption under their utility functions.<sup>65</sup> He defended the resulting “double taxation” of gifts as following logically from the fact that, at least for altruistically motivated transfers, there really is double consumption.<sup>66</sup> For example, if

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<sup>58</sup> Piketty, note 1, at 384.

<sup>59</sup> *Id.* at 391.

<sup>60</sup> *Id.* at 471.

<sup>61</sup> For this purpose, we ignore the question of whether donative transfers are separately taxed, such as under a typical estate and gift tax. While the overall tax treatment of the transfers by all systems ought to be coordinated, any such taxes presumably reflect goals other than comprehensively measuring particular individuals’ well-being.

<sup>62</sup> See, e.g., §§ 102, 272.

<sup>63</sup> A donor who purchases a consumer item and then gives it as a gift presumably will pay VAT, with the donative transfer being tax-free.

<sup>64</sup> Simons, note 28, at 56-57.

<sup>65</sup> *Id.* at 57-58.

<sup>66</sup> *Id.* at 58.



I prefer giving money to my children to spending it at a restaurant, then I get to benefit them, as I presumably wanted, and they then get to spend the money as they like.

This double consumption argument generally applies to bequests, no less than to inter vivos gifts. Involuntary and indeed unwelcome though one's death may be, bequests at least generally reflect the decedent's choice regarding who should get the estate. Moreover, leaving aside (for the moment) purely accidental bequests that reflected precautionary saving against the risk of outliving one's resources, bequests presumably reflect a deliberate decision to direct market consumption opportunities to one's heirs, rather than to oneself.

Simons' argument for "double taxation" of donative transfers therefore has considerable logical force, at least if one is thinking solely about measuring the transfers' effect on donors' and recipients' well-being. What is more, the same argument straightforwardly applies under a consumption tax, no less than under an income tax. After all, it rests on viewing the making of a gift as a consumption act. It therefore supports treating donative transfers as taxable to the donor, even though recipients presumably will pay a further round of consumption tax when they spend the funds. Obviously, no real world VAT actually applies in such a way. But then again, no real world income tax treats gifts as Simons advocated either.

As Louis Kaplow has noted, perhaps the most compelling argument against following Simons' logic for double taxation of gifts is that donative transfers involve a positive externality.<sup>67</sup> Donors take account of their own utility from using a gift to increase recipients' utility, but do not separately also count the latter utility.<sup>68</sup> By contrast, a full social welfare analysis would count both.<sup>69</sup> Thus, suppose I spend \$100 at a restaurant, rather than giving this amount to my children, because I would have derived only \$90 worth of utility from making the gift.<sup>70</sup> The forgone gift would have yielded overall utility of \$190, rather than just \$100, so encouraging it in some fashion may make sense.

This consideration may call for subsidizing donative transfers relative to the double taxation approach that would have applied if one were merely trying to measure their effect on individuals' well-being. To be sure, there is no reason to think that excluding one of the two

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<sup>67</sup> See Louis Kaplow, A Note on Subsidizing Gifts, 58 J. Pub. Econ. 469, 469-70 (1995).

<sup>68</sup> See *id.* at 470.

<sup>69</sup> See *id.*; Kaplow, note 8, at 253-54. Kaplow notes that donative transfers may also have a negative revenue externality, by reason of the income effect on the recipient's labor supply. See Kaplow, note 8, at 254-55.

<sup>70</sup> For purposes of this analysis, it does not matter if my utility reflects, not just pure altruism, but my utility from making them feel grateful. I am still counting my own utility from the gift and not directly counting their utility.

consumption acts from the income or consumption tax base produces exactly the right level of subsidy. (Thus, in the above example, it would have been too small a subsidy to change my behavior.)

The analysis thus far assumes that transfers are motivated by altruism and/or interdependent utility functions such as the “warm glow” model, under which the donor enjoys being the one who has benefited (or won gratitude from) the donee.<sup>71</sup> As Barbara Fried notes, transfers may also be the mere byproduct of precautionary savings, or else may reflect a services-for-goods exchange, with the younger generation providing care (or obedience or other services) in exchange for property at death.<sup>72</sup> Bequests that purely reflect precautionary saving presumably can be expropriated without inefficiency, given the decedent’s lack of concern regarding what happens to any residual funds. And there is no evident reason not to tax (in effect, as labor income) amounts that one inherits in exchange for one’s prior services.

Taxing high-end bequests might also be appropriate if one agrees with Peter Diamond and Emmanuel Saez that the social marginal welfare value of consumption by wealthy individuals is effectively zero.<sup>73</sup> This might suggest disregarding the altruistic externality argument, and either double-taxing donative transfers to wealthy recipients or—better still—determining what tax rate on the transfers would raise the most revenue.<sup>74</sup>

With all this as background, we can turn to the question of how adding donative transfers to the picture changes the analysis of taxing saving that would apply if it were purely a life-cycle phenomenon. In our view, all it does is show the need to add an analysis of such transfers to the analysis of life-cycle saving, and then to treat each based on one’s conclusions. For example, if life-cycle saving was wholly innocuous but donative transfers had adverse distributional consequences over time, one might want to exempt the former and tax the latter. In any event, however, indefinite deferral of consumption tax liability is not the core issue raised by bequests if one can suitably respond—including, under consumption tax logic, by taking account of the fact that getting to enrich one’s heirs may effectively be own consumption in addition to making them better off.

It seems clear, moreover, that donative transfers, rather than life-cycle saving, are at the heart of Piketty’s concern about rising high-

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<sup>71</sup> See, e.g., Barbara H. Fried, *Who Gets Utility from Bequests? The Distributive and Welfare Implications for a Consumption Tax*, 51 *Stan. L. Rev.* 641, 665-66 (1999).

<sup>72</sup> *Id.* at 650-53.

<sup>73</sup> Diamond & Saez, note 37, at 168.

<sup>74</sup> Suppose, for example, that the revenue-maximizing tax rate on donative transfers to wealthy individuals was either higher or lower than the revenue-maximizing labor income tax rate. One might then want to differentiate the two tax rates.

end wealth inequality.<sup>75</sup> To be sure, if  $r > g$  holds and is the prime long-term driver of rising high-end inequality, life-cycle saving would indeed be the core problem in a hypothetical single-generation world featuring extremely long-lived individuals who all were born at the same time, causing all donative transfers to occur between peers. However, with our actual finite lifespans and multi-generational households, wealth transfers to one's descendants, rather than saving as such, is the chief problem that Piketty's analysis of rising high-end inequality suggests we must address.

We now sum up how this literature comes out. Saving, which causes one's earnings or other resources to persist as capital, generally is treated in the literature as merely an intertemporal consumption choice regarding present versus future consumption. (It also can fund bequests that involve choosing between own and heirs' market consumption.) Everyone is a consumer, and everyone is at least potentially a worker and a saver. People at the top of the distribution save proportionately more of their available resources, such as earnings, than those lower down. Nonetheless, there is no obvious reason to distort intertemporal consumption choices by disfavoring later consumption relative to sooner consumption, if one can achieve the desired level of redistribution whether or not one does so. Bequests may be crucial, but are conceptually distinct.

Finally, even if there is a case for taxing capital income at a positive rate even without regard to bequests, it does not necessarily follow that, as under an income tax, it should face the same tax rate as labor income.<sup>76</sup> Alan Auerbach, for example, notes that the public economics

literature of recent decades has moved us quite far from thinking it natural that capital and labor income should be taxed according to the same schedule. . . [W]e have come to understand not only that capital income is "different," but also that capital income has different components that might optimally be subject to different rates of taxation . . . .<sup>77</sup>

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<sup>75</sup> See Piketty, note 1, at 377-81.

<sup>76</sup> See, e.g., Atkinson & Sandmo, note 49, at 539; Auerbach, note 49, at 7-8.

<sup>77</sup> Alan Auerbach, *Capital Income Taxation, Corporate Taxation, Wealth Transfer Taxes and Consumption Tax Reforms 16* (Aug. 2013) (unpublished manuscript), available at <http://eml.berkeley.edu/~auerbach/Capital%20Income%20Taxation.pdf>. We discuss the different components of capital income in Part III.

*E. Piketty and the Significance of Capital*

We now turn to the question of how one should understand the relationship between the optimal income tax and fundamental tax reform literatures, on the one hand, and Piketty's analysis of capital, on the other hand. The question is a difficult one to answer, because the above literature and Piketty apply different perspectives. The literature is generally welfarist, focuses on *ex ante* decisions, and looks for a long-term equilibrium that optimizes a social welfare function. In theory, this function may include any considerations that affect either people's well-being, or the observer's weighting algorithm. In practice, at least in the United States, an *ex ante* perspective that focuses on savers surely reflects—even if unconsciously—the worldview of many economists, who not only have their own savings and investments, but may rub shoulders with (or even expressly advise) those who hold considerably more capital, leading to sympathy and a shared perspective.

Piketty, in contrast, does not couch his proposals in expressly welfarist garb, at least in this book. He decries high and rising inequality, offers evocative descriptions of the social ills it may yield, and is particularly sensitive to the relationship between inequality and opportunity.<sup>78</sup> Yet he does not attempt to catalog, rank, classify, or quantify those ills, nor does he discuss in any detail either the costs of policies designed to reduce inequality, or the framework that one should apply in assessing trade-offs. This is not a criticism, since those ambitious tasks are surely best left for a separate project, but it does naturally affect one's assessment of the policy recommendations that he offers.

Taking the book's analysis as given, what is its relevance for the savings literature? Looking at the matter from a welfarist perspective, we believe that it potentially supplements the analysis in this literature, without significantly contradicting it. Piketty's analysis suggests that savings and/or positive returns to saving and/or bequests produce inequality, which may be thought of as giving rise to negative externalities—the nature of which, however, might merit further elaboration. If he is right, then these concerns may outweigh, at least at the relevant margin, any positive externalities from capital accumulation.<sup>79</sup> These negative externalities could support imposing a Pigovian

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<sup>78</sup> See Piketty, note 1, at 15-16.

<sup>79</sup> As an example of a claimed positive distributional externality from these same phenomena, consider Gregory Mankiw's argument that "[b]ecause capital is subject to diminishing returns, an increase in its supply causes each unit of capital to earn less. And because increased capital raises labor productivity, workers enjoy higher wages. In other words, by saving rather than spending, those who leave an estate to their heirs induce an

tax on savings, and/or on returns to saving, and/or on bequests. Piketty's advocacy of a global wealth tax could be viewed as exemplifying one of these approaches.

Next, what should be the savings literature's impact on Piketty's analysis? At a minimum, we believe it may affect the choice between different fiscal instruments, including not just wealth taxation but also income and consumption taxation. For example, while a progressive consumption tax might not directly address the claimed negative externality from savings, higher returns to saving, and bequests,<sup>80</sup> it arguably could address the end result of rising high-end inequality, even insofar as wealth remained unspent and thus had not yet been subject to the payment of current tax. Moreover, as seen below, if one agrees that high-end inequality is undesirably rising but attributes it instead to some other cause, such as rising wage inequality, then the Pigovian argument for focusing on capital accumulation is undermined.

Administrative arguments about particular tax bases may also be highly relevant to the choice of instruments. Consider, for example, the frequently made argument in the corporate and international tax policy literatures to the effect that changes in global capital markets may support shifting away from the use of income taxation, and towards the greater use of consumption taxes.<sup>81</sup> A common version of the argument goes as follows. Capital is ever more mobile, but individuals remain less so—in terms both of labor supply and where they reside and are primarily taxable. Because so much income is earned through corporations, and because there are administrative reasons for taxing corporate income at the entity level, global capital mobility undermines income taxation. Corporations can respond to residence-based income taxes by residing in tax havens, and they can respond to source-based income taxes by either actually shifting investment to havens or playing accounting games so that their income is treated as arising there. Against this background, tax competition is rife with respect to capital income (since so much of it is earned through corporations), and the actual incidence of the corporate tax may tend to

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unintended redistribution of income from other owners of capital toward workers." N. Gregory Mankiw, *Why Inheritance Is Not a Problem*, N.Y. Times, June 22, 2014, at BU4.

<sup>80</sup> While a progressive consumption tax would not directly discourage savings, its rising rate structure might indirectly have this effect. It might similarly bear on high returns to saving, although we further discuss certain conceptual issues raised by the return to saving in Section III.C. As for bequests, a progressive consumption tax clearly would discourage them, relative to own consumption of wealth, if it treated them (as admittedly is unlikely in practice) as involving taxable consumption by the decedent.

<sup>81</sup> See, e.g., Manmohan S. Kumar & Dennis P. Quinn, *Globalization and Corporate Taxation 12* (Int'l Monetary Fund, Working Paper No. 12/252, 2012), available at <https://www.imf.org/external/pubs/ft/wp/2012/wp12252.pdf>.

shift from holders of capital to workers.<sup>82</sup> Hence, a given country may be able to improve, not just the efficiency of its tax system, but also the distributional outcomes that it can achieve, by using consumption taxes more, and income taxes less.

Our point for now is not to evaluate whether this line of argument is correct, but rather to note its importance to the evaluation of the policy issues raised by Piketty's analysis. It relates purely to tax institutions, since it would not be raised by Haig-Simons income taxation of individuals that included their shares of corporate income wherever earned. It also is not directly raised by Piketty's global wealth tax proposal, which presumably would treat individuals as the taxpayers and include the value of their corporate and other financial assets. But if entity-level income taxation reflects the practical and administrative difficulty of looking through corporations to their owners, there may also be implications for the use of a wealth tax that presumably faces similar challenges.

### III. WHAT IS "R"? DECOMPOSING THE RETURN TO CAPITAL

A second area in which the tax policy literature may help shed light on Piketty's analysis concerns the composition of investment return, or  $r$ . In comparing  $r$  to  $g$ , Piketty mainly treats  $r$  as a unitary item, measured in the historical data *ex post*. In this manner, he discusses the investments that give rise to  $r$  within each country and time period that he examines. For example, he notes that interest from government bonds constituted a significant source of wealth in nineteenth century Great Britain.<sup>83</sup> Compensation was "quite high," averaging 4% to 5%, while inflation was virtually zero.<sup>84</sup> Similarly, "French sovereign debt was a good investment throughout the nineteenth century, and private investors prospered on the proceeds . . . and a very substantial group of people lived on that interest."<sup>85</sup>

Piketty further notes that other investments in this time period were active or entrepreneurial, rather than passive like holding government bonds.<sup>86</sup> Balzac's Père Goriot and Austen's Sir Thomas are given as

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<sup>82</sup> See Robert Carroll, Tax Found., *The Corporate Income Tax and Workers' Wages: New Evidence from the 50 States 4-5* (2009), available at <http://taxfoundation.org/sites/default/files/docs/sr169.pdf>; Li Liu & Rosanne Altshuler, *Measuring the Burden of the Corporate Income Tax Under Imperfect Competition*, 66 *Nat'l Tax J.* 215, 231-33 (2013); Bruce Bartlett, *Who Pays the Corporate Income Tax*, *Economix*, N.Y. Times (Feb. 19, 2013, 6:00 AM), [http://economix.blogs.nytimes.com/2013/02/19/who-pays-the-corporate-income-tax/?\\_r=0](http://economix.blogs.nytimes.com/2013/02/19/who-pays-the-corporate-income-tax/?_r=0).

<sup>83</sup> Piketty, note 1, at 130-31.

<sup>84</sup> *Id.* at 131.

<sup>85</sup> *Id.* at 132.

<sup>86</sup> *Id.* at 114-16.

examples of those who made fortunes in business.<sup>87</sup> Piketty sees these two categories of investment, entrepreneurial and passive, as highly consistent across time:

Père Goriot's pasta may have become Steve Jobs's tablet, and investments in the West Indies in 1800 may have become investments in China or South Africa in 2010, but has the deep structure of capital really changed? Capital is never quiet: it is always risk-oriented and entrepreneurial, at least at its inception, yet it always tends to transform itself into rents. . . .<sup>88</sup>

The tax policy literature, in contrast to Piketty, commonly looks at returns to saving and investment from an *ex ante* perspective, and decomposes  $r$  from any given investment into several distinct components. A standard decomposition of  $r$  in the tax policy literature would break it down into (1) the normal risk-free real return to waiting, (2) a return to offset expected inflation, (3) the expected risk component for both the real return and inflation rate, involving any risk premium that is expected *ex ante* and then the actual risky outcome *ex post*, and (4) any extra or inframarginal return that an investor may expect in a particular instance.<sup>89</sup> In the literature, one of the main motivations for this decomposition is to analyze what it means to exempt "capital income," as a consumption tax but not an income tax ostensibly does. The decomposition at least arguably shows that the two tax instruments are more similar than is often assumed.<sup>90</sup>

With respect to Piketty's analysis, the potential relevance relates not just to this issue (and more generally to the choice of tax instruments in response to rising high-end wealth inequality), but also to the emphasis he places on  $r > g$  and on the distinction between labor income and capital income. Two (related) points in particular stand out: Measured solely by the riskless, inflation-adjusted return,  $r$  appears unlikely to exceed  $g$ ; and Piketty's policy prescription, taxing capital via both income taxes and wealth taxes, may or may not significantly reduce after-tax  $r$ .

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<sup>87</sup> *Id.* at 114-15.

<sup>88</sup> *Id.* at 115-16.

<sup>89</sup> See, e.g., William M. Gentry & R. Glenn Hubbard, *Distributional Implications of Introducing a Broad-Based Consumption Tax*, in 11 *Tax Policy and the Economy* 1, 2 (James M. Poterba ed., 1997).

<sup>90</sup> See *id.* at 2.

### A. *The Normal Risk-Free Return to Capital*

If anything at least initially defines capital income, it is the element of time. An investor holds wealth, deploys it in some way rather than using it to fund immediate consumption, and generates a real economic return that she hopes is positive. In practice, as the standard decomposition helps show, the time element that contributes to generating a return is intermingled with conceptually distinct elements, such as risk and the exercise of choice to make especially good (or bad) investments that may not be available to everyone. Nonetheless, it is useful to think separately about the time element standing alone, if only because it is the one element ineluctably associated with choosing saving over immediate consumption. Risk and choice are not just conceptually distinguishable, but to some extent may be practically separable from the element of time and pure waiting.<sup>91</sup>

What, then, has the normal, risk-free return to waiting historically been? To answer this, one must look at investments that are both completely safe and generally available to investors. Moreover, “safe” does not just mean that one will not lose the principal invested (as in the case of default on a loan), but also requires an absence of such elements as inflation risk and interest rate risk. For example, a ten-year bond with zero risk of default may gain or lose about 10% of its value if real interest rates change by just 1%.

Given these points, it has been suggested in the literature that the best available historical proxy for measuring the normal risk-free rate of return is the yield on very short-term, such as three-month, U.S. federal government bonds.<sup>92</sup> As it happens, over the last century or so the annualized real rate of return on such bonds has averaged only about 1%.<sup>93</sup> This has prompted the view that the pure time, or return to waiting, element in what we commonly classify as capital income is simply not all that significant.<sup>94</sup>

On the other hand, some argue that the short-term federal rate is misleadingly low as a gauge of the normal risk-free rate in the economy generally.<sup>95</sup> Thus, suppose that the U.S. government’s well-known brand name and finite demand for short-term financing enable it to secure a bargain rate from investors, to whom it simply is not worth the effort to shop for a broader price when one is merely tem-

<sup>91</sup> See Section III.B.

<sup>92</sup> See, e.g., Joseph Bankman & Thomas Griffith, *Is the Debate Between an Income Tax and a Consumption Tax a Debate About Risk? Does it Matter?*, 47 *Tax L. Rev.* 377, 387 n.27 (1992).

<sup>93</sup> *Id.* at 390 n.39.

<sup>94</sup> *Id.* at 389.

<sup>95</sup> See, e.g., Reed Shuldiner, *Comment*, in *Taxing Capital Income* 30, 35-36 (Henry J. Aaron, Leonard E. Burman & C. Eugene Steuerle eds., 2007).



porarily parking one's funds. Even so, it is unclear how much higher one's estimate of the normal risk-free rate could realistically go.

In the tax policy literature, the main significance that is ascribed to the normal risk-free rate of return relates to assessing the degree to which income and consumption taxes actually differ in principle. Suppose one concludes, based on arguments that we discuss below, that income and consumption taxes are effectively the same in how they bear on both risky returns and inframarginal returns. This would indicate that the two systems differ only with regard to the normal risk-free rate of return, which a properly functioning income tax reaches but a consumption tax does not. If that rate is sufficiently low, this line of reasoning has led some analysts to suggest that it makes almost no difference in principle whether one taxes income or consumption.<sup>96</sup> The main differences in practice between the two systems would then depend on the consequences of administrative features, such as the realization requirement for income taxation, that happened to be associated in practice with implementing either system.<sup>97</sup>

How might focusing on just the normal risk-free rate of return affect Piketty's analysis? While this depends on one's conclusions from separately analyzing the risky and inframarginal components, clearly it would make a large difference if only the normal risk-free component was thought to be ineluctably associated with "capital." Even if its true historical level has typically exceeded 1% annually, there is no particular reason to think either that it generally exceeds  $g$ , or that it is the main source of rising high-end wealth inequality. Piketty's data clearly reflect *ex post* risk resolution and limited special opportunities (as he indeed emphasizes, such as by noting that wealthy people may generally earn higher annual returns on their saving).<sup>98</sup> Thus, it is important separately to evaluate those aspects of "capital income."

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<sup>96</sup> See, e.g., Bankman & Griffith, note 92, at 387.

<sup>97</sup> As we further discuss in Part IV, wealth taxation can avoid this conundrum. After all, if one wants to levy a wealth tax at, say, a 3% annual rate, one can technically do this even if the relevant annual return to wealth is only about 1%. One should keep in mind, however, that this has important similarities with levying a capital income tax at a 300% rate. A high wealth tax rate, combined with a low discount rate for choosing between present and future outlays, implies steeply rising effective commodity tax rates on later, as opposed to sooner, consumption. Thus, the redistribution that was accomplished through wealth taxation in the presence of an extremely low normal risk-free return to waiting might come at a high efficiency cost.

<sup>98</sup> See Piketty, note 1, at 26, 243.

## *B. The Risk Component*

### *1. Positive Analysis of Risk in the Tax Policy Literature*

Risk is a pervasive element in savings decisions and outcomes, and indeed in most of life. One can see it behind the scenes in Piketty's historical findings. For example, nineteenth century English holders of capital in effect won the lottery, given the era's predominant peace and prosperity along with the Industrial Revolution's effect on returns. There is no way of knowing whether the events of that era would be guaranteed to proceed again quite so favorably, if we could somehow initiate a replay starting in the late eighteenth or early nineteenth century. We do know, however, that there was no consensus in favor of optimism at the time. For example, David Hume and Adam Smith feared that England's high public debt levels during the era of its frequent wars with France might lead to economic catastrophe.<sup>99</sup> English bondholders took the risk that government would fail or default on debt, or that inflation would reduce real return to zero or less. The same can be said of French bondholders. Bonds may, as Piketty states, reflect "quiet capital" when compared to start-ups,<sup>100</sup> but they are risky nonetheless, with risk being a function of time, the borrower's solvency, and inflation. That fact is easily lost when one examines historical returns *ex post*.

The same thought experiment, building on *ex ante* probabilities, can be played out for the twentieth century, which for decades turned out comparatively poorly for capital. Suppose we could initiate a historical replay that started before the assassination of Archduke Ferdinand. Perhaps this time around, World War I could be avoided, with subsequent consequences including a milder (if any) Great Depression and no World War II or rise of Nazi and Soviet totalitarianism. The broader point here is simply that *ex ante* expectations need not generally match what ends up being realized *ex post*.

Asking whether, as viewed from the front end, the nineteenth and twentieth centuries might have played out very differently raises the issue of systemic risk, which holders of capital cannot entirely avoid facing, even if they have some ability to swap relative exposure among themselves. But clearly there is also a large role played by idiosyncratic risk, associated with particular investment positions, which holders of capital may have especially large scope either to bear through deliberate bets if they like, or alternatively to hedge, diversify, or wholly avoid. And while we commonly think of investors as

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<sup>99</sup> See Daniel Shaviro, *Do Deficits Matter* 28-29 (1997) (describing the views on public debt expressed by Hume and Smith).

<sup>100</sup> Piketty, note 1, at 115.

risk-averse, and thus as requiring an expected risk premium to invest more riskily than is unavoidable, we should also keep in mind the importance of deliberate bets—like that of Bill Gates, when he was starting out, on the future success of Microsoft. Those who end up making the largest fortunes often are the winners among those who placed the largest bets, at least with respect to the upside.

Why does risk distinctively matter in the tax policy literature's analysis of returns to capital? One reason is that the tax treatment of risky outcomes can affect *ex ante* incentives. For example, the tax system may discourage risk-taking if it has graduated rates, or taxes gains while limiting loss deductions. On the other hand, if taxpayers can sufficiently exploit the realization requirement through strategic trading, which involves holding the winners and selling the losers, an income tax may end up encouraging risk-taking, including in cases where the expected pretax return is negative.

A second reason why risk distinctively matters is that people may make investment choices in light of the expected impact of the tax. Indeed, as Evsey Domar and Richard Musgrave first showed in a classic 1944 article,<sup>101</sup> a linear income tax system with full loss offsets should seemingly, at least in the presence of complete financial markets, have no effect on people's risk positions *ex ante* or the outcomes they achieve *ex post*.<sup>102</sup> The basic line of reasoning, which has become well-known in the recent tax policy literature, can be explained as follows.

Since risk as such is conceptually distinct from time—although it is true that almost anything that plays out over time must involve risk—we start with the example of an instantaneously resolved bet. Suppose that, in the absence of an income tax system, I would bet \$1 million that a given coin toss will come out heads.<sup>103</sup> (Perhaps I believe that I have special knowledge about the coin.) If there is a 50% income tax in which losses are fully refundable at the statutory rate, all I need do is bet \$2 million before tax, instead of \$1 million, and I will come out in exactly the same place as if the tax system did not exist.

Accordingly, insofar as the aim underlying the tax system is to alter outcomes via redistribution from winners to losers, that aim seemingly cannot be achieved in this instance—at least, assuming consistent rational choice and complete markets. While we will observe taxes be-

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<sup>101</sup> Evsey D. Domar & Richard A. Musgrave, *Proportional Income Taxation and Risk-Taking*, 58 Q.J. Econ. 388, 389-90 (1944).

<sup>102</sup> But note that the income effect of paying tax on the normal risk-free return may affect one's preferred position with respect to risk.

<sup>103</sup> But of course we assume that this is investment activity, not covered by rules for recreational gambling.

ing paid by winners and refunds being given to losers, thus seemingly achieving the intended objective, this is illusory so far as the tax system's actual effect on outcomes is concerned.

Now suppose we shift our focus to risk-free versus risky assets that earn returns over time, with an expected risk premium for the latter assets. A standard hypothetical in the tax policy literature derived from the Domar-Musgrave article might proceed as follows. Suppose I have \$200 and that, in the absence of a tax system, I would invest \$100 in a risk-free asset that will earn zero and thus return exactly \$100,<sup>104</sup> and \$100 in a risky asset that has a 10% expected return, comprised of equal 50% chances that it will grow to \$130 and decline to \$90. Accordingly, given both assets, at the end of the year, my \$200 stake will either have grown to \$230 or declined to \$190 (with equal probability).

Once again, however, suppose I face a 50% income tax with full loss refundability at the statutory rate. All I need do, in order to negate the tax system's impact on my position, is invest all \$200 in the risky asset. That way, if I win my bet on the asset, I end up with \$260 before tax, reduced to \$230 by the application of a 50% tax rate to the gain. By contrast, if I lose my bet, I end up with \$180 that the tax system raises to \$190 via loss refundability. Accordingly, in this example, no less than in that of the instantaneously resolved coin toss, I end up completely negating the impact of the 50% income tax that seemingly is imposed on capital income.

Important extensions and qualifications include the following:

- If everyone switches to riskier assets in light of the income tax, might this not affect market prices? Or might taxpayers adjust their risk positions downward to reflect the risk they are bearing through the tax system with regard to others' risky investments? For those who are interested in seeing how this set of issues might be handled in a hypothetical general equilibrium model, Louis Kaplow has supplied a fuller analysis.<sup>105</sup>
- What if the normal risk-free return is positive, rather than zero as in the above example? Here the standard analysis shows that, under an income tax, one pays the tax rate on the risk-free rate of return as applied to one's entire portfolio, even if one has entirely shifted it to risky assets. Thus, in the above example, suppose the risk-free asset returned 2%, rather than zero, and that the taxpayer made the same choices as those described above in both the tax-free and

<sup>104</sup> Zero return is for expositional simplicity; we note the effect below of a positive risk-free return.

<sup>105</sup> See Louis Kaplow, *Taxation and Risk Taking: A General Equilibrium Perspective*, 47 *Nat'l Tax J.* 789, 790-91 (1994).

taxable scenarios. Investing \$100 in each asset under the no-tax scenario would yield \$232 or \$92 with equal probability. Placing all \$200 in the risky asset, in response to the 50% tax with refundability would yield \$230 or \$90 as previously—a \$2 decline in after-tax yield (that is, 50% times 2% times \$200) under both the gain and loss scenarios.

- Suppose the taxpayer faced a 50% consumption tax, rather than an income tax, and that the method used to implement it was either expensing for investment outlays or yield exemption. Either way, the investor could eliminate any impact of the tax on after-tax outcomes, and also would avoid being taxed on the normal risk-free return.<sup>106</sup>

- What if markets are incomplete? Suppose, for example, that in the no-tax scenario I would have wanted to invest my entire portfolio in the risky asset. With taxation, getting to the same place might require such adjustments as investing in symmetrically riskier assets, or else borrowing at the risk-free rate to invest more in the risky asset. If all such responses are unavailable, then the hypothetical 50% income tax with loss refundability actually does change my end position—for example, from \$260/\$180 to \$230/\$190, in the scenario where I cannot do anything to raise my pretax risk exposure.

This is akin to giving me mandatory insurance that I would prefer to waive but cannot. It presumably reduces my expected utility, given that I wanted to place the larger bet. Nonetheless, if I am at all risk-averse—requiring some sort of positive expected risk premium in order to prefer risky to risk-free assets—then my expected utility loss is less than that which would result from paying a \$10 tax with certainty,<sup>107</sup> given the positive insurance value to me of having both my gains and my losses symmetrically reduced.

What about the fact that no actual income tax system treats risk in the same manner as that in the hypothetical model? Instead, income taxes commonly penalize risk-taking through progressively graduated rates and loss limitations, although they may also reward it via strategic trading opportunities. Here one should distinguish analytically between (1) how a given tax system actually affects risk-taking, given all potentially relevant features, and (2) how its character as an income tax or a consumption tax matters to the bottom line—that is, not at

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<sup>106</sup> Obviously, yield exemption would lead straightforwardly to the above investor's ending up with either \$232 or \$192 in the scenario where the risk-free rate of return is 2%. With expensing, the investor invests \$400 upfront, funded by the expensing deduction that reduces the after-tax outlay to \$200. Half is invested in each asset. At the end of the period, the taxpayer has either \$260 or \$180 from the risky asset, and \$204 from the risk-free asset, leaving a total of either \$464 or \$384. A 50% tax on this gross amount causes the taxpayer to end up with either \$232 or \$192, just as in the no-tax scenario.

<sup>107</sup> My expected tax liability is \$10, given that I will either pay \$30 or get \$10 with equal probability.

all, apart from the distinction in how the two systems treat the normal risk-free return, if the analysis set forth above is otherwise correct.

## 2. *Normative Analysis of Risk*

The public finance and tax policy literature on risk is overwhelmingly descriptive. However, there is a small branch of that literature that addresses normative issues raised specifically by taxing risk. One way to think about these issues from a welfarist perspective is to contrast the savers in Fisher's tale of three brothers, or the life-cycle saver, with the lottery winner. In Fisher's tale of three brothers, the saver's welfare is increased by saving.<sup>108</sup> However, the spender's welfare is increased by spending, and there is no basis for determining whether the former experiences a greater increase in welfare than the latter. In the stylized version of the life-cycle model, the saver and spender are the same individual. Individuals with different levels of lifetime consumption all save, and welfare is most appropriately measured by lifetime consumption, without regard to the hump in unspent income produced by saving.

In contrast, the lottery winner is unmistakably better off than the identically-situated lottery loser or the individual who does not play the lottery. There seems to be nothing morally noble about the gamble, or about risk-taking in general, nor does there seem to be a negative ex post consequence to the winner that offsets the gains. For these reasons, Joseph Bankman and Thomas Griffith conclude that, all else equal, gains from risk ought to be taxed.<sup>109</sup> They cabin their analysis by noting ex ante incentive considerations that make taxing risk problematic, and other considerations that may lead society to want to subsidize or penalize risk-taking.<sup>110</sup>

A contrary view might hold that the fiscal system should only respond to unwanted risk-taking, such as from one's involuntarily playing the "ability lottery" at birth and then being unable to achieve suitable hedging or diversification with respect to one's expected future labor income.<sup>111</sup> This might be supplemented by paternalistically motivated support for protecting people against the consequences of their taking foolish or unwise gambles, as measured given the actual

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<sup>108</sup> See Fisher, note 23, at 249-50.

<sup>109</sup> See Bankman & Griffith, note 92, at 406.

<sup>110</sup> Id.

<sup>111</sup> On the difficulty of hedging or diversifying one's ability risk, see Shaviro, note 31, at 757.

odds and their own preferences regarding current and future consumption.<sup>112</sup>

One implication of thus limiting the case for progressive redistribution to instances of involuntary plus unwise risk-taking might be viewing it as inappropriate with respect to ex post winners and losers who had made reasonable bets based on a shared willingness to accept the consequences, whatever they might be, with “no tears.” We refer here to the famous story, told by Michael Lewis at the beginning of his book *Liar’s Poker*, in which Salomon Brothers chairman John Gutfreund discusses, with one of his chief bond traders, the possibility of betting “[o]ne hand, one million dollars, no tears.”<sup>113</sup> That is, “the loser was expected to suffer a great deal of pain but wasn’t entitled to whine, bitch, or moan about it.”<sup>114</sup> The trader responds by suggesting instead a ten-million dollar bet with no tears, and Gutfreund backs down.<sup>115</sup>

Although the bet ends up not being made, those who view this story as offering a frequently apt explanation for actual good and bad economic outcomes might reasonably favor less progressive redistribution than those who view it as generally inapt. Concluding that it is frequently apt would suggest either that declining marginal utility is not as widespread as one might otherwise have thought,<sup>116</sup> or that the thrill of placing large bets makes up for the reduction in expected utility just from the economic payoff. However, we question the premise that voluntary, rational, “no-tears” bets play a large enough role in creating observed economic outcomes—among losers as well as winners—for this interesting theoretical question to have great import regarding the optimal level of progressive redistribution in modern societies.

### 3. *Relevance of the Risk Analysis in the Tax Policy Literature to Piketty’s Findings*

As noted above, Piketty views risk-taking as playing a large role in the creation of great fortunes, in the past as well as the present.<sup>117</sup> He notes as well that risk tolerance can affect more quotidian investment choices. Because “it is easier for an investor to take risks, and to be patient, if she has substantial reserves than if she owns next to noth-

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<sup>112</sup> Indeed, taking unwise gambles might be viewed as an expression of low ability against which people, deciding behind a veil of ignorance, would want to be insured.

<sup>113</sup> See Michael Lewis, *Liar’s Poker* 14 (1989).

<sup>114</sup> *Id.* at 15.

<sup>115</sup> *Id.* at 18-19.

<sup>116</sup> See Sarah B. Lawsky, *On the Edge: Declining Marginal Utility and Tax Policy*, 95 *Minn. L. Rev.* 904, 907-08, 951-52 (2011).

<sup>117</sup> See Piketty, note 1, at 114-16, 431.

ing,”<sup>118</sup> wealthy individuals tend to earn relatively high returns on capital, such as “6 or 7 percent, whereas less wealthy individuals might have to make do with as little as 2 or 3 percent.”<sup>119</sup> This, in turn, can lead to “radical divergence in the distribution of capital.”<sup>120</sup> One should keep in mind, however, that a risky 6% or 7% return does not always play out in practice as an actual 6% or 7% return. Only in ex post data observation will risky investments look as if they were actually safe rents.

Risk affects Piketty’s analysis and prescriptions in three related areas. First, the tax and other consequences that accompany the resolution of differentially risky investment choices may affect ex ante incentives. Second, as in the Domar-Musgrave story, people may be able to adjust their risk positions in light of rules that are meant to move towards equalizing ex post outcomes.<sup>121</sup> Third, the tax policy literature addressing risk has implications for how one might view the use of alternative tax instruments, such as income and consumption taxation, in response to concern about high-end inequality.

*Ex ante incentives.* Imposing high taxes on those who prove ex post to have won their “bets” can discourage risk-taking if losses would not symmetrically be deductible (and, where necessary, refundable). In this regard, rate progressivity is generally more of an issue for individuals than corporations, given marginal tax rate structures in the United States and other countries. If costly business ventures that might end up losing a lot of money are mainly conducted through corporations, then the big issue is effective deductibility, which companies can address (albeit at an efficiency cost) by increasing multi-business consolidation, so that profitable ventures can use the losses generated by those that fail.

Despite these issues, it would be misleading to focus just on the risk-discouraging aspects of income taxes with progressive rates and loss limits. As noted above, in a realization-based system, the strategic trading option may become more valuable as the underlying investment grows riskier. In addition, even if on balance taxpayers would prefer not to have their after-tax gains and losses both reduced by the tax system, its doing so may have some insurance value that reduces one’s tax burden to less than the full expected tax cost.

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<sup>118</sup> Id. at 431.

<sup>119</sup> Id.

<sup>120</sup> Id. As we discuss below, Piketty views this divergence in rates of return as probably having less to do with responses to risk than with economies of scale that permit very wealthy individuals to benefit from better financial advice than that which is available to the general public. Id. at 430-31.

<sup>121</sup> See Domar & Musgrave, note 101, at 389-90.



*Ex post outcomes.* Here is where a Domar-Musgrave mode of analysis, if relevant to actual investment choices, may importantly limit the capacity of income and consumption taxes, in particular to address rising high-end inequality.<sup>122</sup> Thus, consider Piketty's observation that wealthy investors, by reason of getting good financial advice and being able to cushion some downside economic risk, "might get as much as 6 or 7 percent" returns on capital, even if the average return is significantly lower.<sup>123</sup> If the tax rate on these investment returns was significantly increased, wealthy investors might be able to respond even without changing their underlying asset choices. Additional leverage and greater use of financial derivatives, such as swaps or cash-settled option contracts of various kinds,<sup>124</sup> might enable them to target higher, though riskier, pretax returns that might then play out after tax about the same as previously. In this scenario, even if one observed high tax payments being made by these investors, the tax system would not necessarily have a significant effect on equality. Moreover, the additional expected tax revenues, given the associated risk, might not have a commensurately positive market value.<sup>125</sup>

Insofar as wealthy individuals can earn higher returns without greater risk, the analysis changes somewhat. If they can indefinitely keep on earning higher returns on whatever capital they invest, reflecting the application of greater financial sophistication, then in effect the normal risk-free rate of return—which a well-functioning income tax reaches and a well-functioning consumption tax exempts—is higher for them than for other individuals. This, however, might suggest an unlimited opportunity to earn arbitrage profits by funding such investments through borrowing at the "regular" risk-free rate. If at some point risk is the limiting factor, then the analysis returns to that described above. If the opportunity to earn more is finite—as in the case where one's higher returns reflect access to special deals not offered to the general public—then the analysis turns into that of inframarginal returns, which we discuss below.<sup>126</sup>

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<sup>122</sup> A similar analysis applies to wealth taxes except that, as noted earlier, they may end up effectively applying extremely high tax rates to the normal risk-free return on capital.

<sup>123</sup> Piketty, note 1, at 431.

<sup>124</sup> In general, derivatives can be used to associate large bets, such as on future price movements for particular assets, with low capital outlays, requiring only that one be sufficiently well-advised and creditworthy. See Michael Bloss, Dietmar Ernst & Joachim Häcker, *Derivatives: An Authoritative Guide to Derivatives for Financial Intermediaries and Investors* 7 (2008).

<sup>125</sup> A government that wants to generate positive expected revenues without commensurately positive market value can simply issue debt and use the proceeds to buy risky financial assets such as stock.

<sup>126</sup> See Section III.D.

### C. *Relevance of the Risk Analysis to the Choice of Tax Instruments*

A further issue raised by the tax policy literature's analysis of risk-taking's relevance to capital income concerns the choice of tax instruments that might be used to address rising high-end inequality. Whether or not one agrees that taxpayers can and will adjust their investment choices to offset undesired effects on expected risk premia *ex ante* and risky outcomes *ex post*, the theoretical issues are similar under income and consumption taxation. Thus, any difference in their relative capacity to address the effects on rising inequality of *ex ante* risk premia and *ex post* risky outcomes may depend on administrative and institutional considerations.

In this regard, the problems faced in practice by income taxes, by reason of their apparent need to employ the realization requirement,<sup>127</sup> are not limited to strategic trading with respect to asset realizations. The realization requirement also underlies the general practice of taxing corporate income at the entity level, rather than awaiting shareholder-level realization (which would effectively turn corporations into tax-free savings accounts). As noted earlier, entity-level income taxes are inevitably porous in an era of global capital mobility, with potentially dramatic consequences for the degree of progressivity that an income tax can actually achieve in practice.

### D. *Inframarginal Returns*

In some cases, people have special opportunities to invest at an above-market expected rate of return, even taking account of any risk. A common example might involve one's having an implementable idea for a profitable start-up—say, Mark Zuckerberg founding Facebook, or any number of entrepreneurs who have similarly succeeded, even if on a smaller scale. A second example might involve an investor who acts on special personal knowledge or analysis indicating that particular stocks are mispriced on public markets. A third example might be the case where people with inside connections are invited to participate in an initial public offering (IPO) of a start-up company's stock, predictably reaping large profits when public trading begins.

Purely from an investment standpoint, inframarginal returns represent pure profit, leading to the expectation that one would exploit

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<sup>127</sup> For proposals to impose current income tax on the holders of publicly traded financial assets, see Joseph Bankman, *A Market Value Based Corporate Income Tax*, 68 *Tax Notes* 1347-53 (Sept. 11, 1995); Joseph M. Dodge, *A Combined Mark-to-Market and Pass-Through Corporate Shareholder Integration Proposal*, 50 *Tax L. Rev.* 265 (1995); David S. Miller, *A Progressive System of Mark-to-Market Taxation*, 109 *Tax Notes* 1047 (Nov. 21, 2005).

all of them, irrespective of their taxability. This suggests that adjustments, such as scaling them up in response to any tax, are not available, supporting the conclusion in the tax policy literature that both an income tax and a well-designed consumption tax, such as one that uses expensing for investment outlays rather than generally offering yield exemption, will reach inframarginal returns.<sup>128</sup> Reaping such returns may, however, involve work effort, as in the case where one creates a successful start-up or finds out through research that a given stock is mispriced.<sup>129</sup> In that case, taxing labor supply may have an impact, but this still does not create any difference between the effects of income and consumption taxation.

Piketty is well aware that some returns that formally bear the label of capital income may actually be labor income in substance. For example, he adjusts historical data concerning the split between capital income and labor income to reflect cases where owner-employees omit paying themselves arm's length salaries so that they can profit via stock appreciation.<sup>130</sup> He also notes that "national accounts do not allow for the labor, or at any rate attention, that is required of anyone who wishes to invest."<sup>131</sup> The classification matters because he is interested in historical trends regarding the income split between "capital" and "labor." This issue is not pertinent to, and thus generally is not addressed in, the tax policy literature that looks at savings behavior and decomposes the return to capital in relationship to analyzing the incentive and distributional effects of alternative tax bases.

However, whether or not (and to what degree) particular opportunities to reap inframarginal returns should be deemed to involve labor supply rather than just the deployment of capital, these opportunities clearly pertain to particular individuals and their personal circumstances. Given that they are not generally available, they can relate only to who one is, and/or to what one does. Accordingly, evaluation of inframarginal opportunities' broader significance leads naturally into our discussion in Part V of the role of human capital in relation to rising high-end inequality. First, however, we compare wealth taxes to income taxes, both economically and under U.S. constitutional law.

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<sup>128</sup> See, e.g., Shaviro, note 53, at 103.

<sup>129</sup> Developing inside connections, such that one is offered the opportunity to profit from "ground floor" participation in an IPO, likewise may be viewed as involving work effort.

<sup>130</sup> Piketty, note 1, at 203-04.

<sup>131</sup> *Id.* at 205.

#### IV. WEALTH TAXATION VERSUS CAPITAL INCOME TAXATION

In the previous Part, following common practice in the U.S. tax policy literature, we mainly addressed income and consumption taxation, as distinct from wealth taxation. Piketty, however, specifically advocates a wealth tax, alongside expanded use of progressive income taxation.<sup>132</sup> We thus consider it worth focusing on how these two instruments may differ in practice. While fully exploring the relationship between wealth taxation and capital income taxation would require a more extensive treatment than we can offer here, we address the relevance of risk adjustment under a wealth tax, and the constitutional issues that enactment of a federal wealth tax would pose in the United States.

##### A. *Portfolio Adjustments in Response to a Wealth Tax*

In Subsection III.B.1 we showed that, under certain assumptions, neither an income tax nor a consumption tax can affect risk-taking opportunities as such. If tax rates are linear (including full loss refundability) and capital markets are sufficiently complete, taxpayers can undo the insurance features of either tax by scaling up their pretax bets. What they cannot do, however, is avoid the burden that the income tax places on one's portfolio as a whole, if the normal risk-free return is positive. Thus, in the earlier example where an individual had \$200 to invest, the normal risk-free return was 2%, and the income tax rate was 50%, it turned out that she would face a \$2 decline in after-tax yield (that is, \$200 times 2% times 50%) under any of the available portfolio allocations.

Focusing purely on the risk-free rate of return, and ignoring actual ex post variations in risky outcomes, a capital income tax is equivalent to a wealth tax, imposed at a rate that equals risk-free rate multiplied by the tax rate—in the above example, 1% (that is, the product of 2% and 50%). However, if the risk-free rate of return is zero, then the equivalent wealth tax rate that results from imposing a capital income tax can only be zero, as a matter of arithmetic.<sup>133</sup>

An actual wealth tax, by contrast, can have a positive tax rate that is not conditioned on there being a positive risk-free rate. For example, if one wants to impose a 2% annual wealth tax, one can do so even if the normal risk-free rate of return is zero. In addition, changes to the risk-free rate of return may play out differently under a capital income

<sup>132</sup> *Id.* at 513-15.

<sup>133</sup> If the normal risk-free rate of return is negative, then presumably the equivalent wealth tax rate is negative, that is, it is a wealth subsidy, if losses are refundable at the tax rate.

tax as compared to a wealth change, if each system's statutory rate remains the same. Thus, suppose that the risk-free rate was previously 4%, and declines to 2%. Under the 2% wealth tax, the annual tax liability remains the same, although it now represents 100%, rather than merely 50%, of the normal risk-free rate of return. By contrast, under a 50% capital income tax that only reaches the risk-free rate of return, the taxpayer now effectively pays \$1 per year, rather than \$2.<sup>134</sup>

Given the differences between the denominators of a wealth tax and a capital income tax, that is, one's wealth versus merely the return to one's wealth), they also may have importantly different political optics. Suppose again that the normal risk-free rate of return is 2%. Proponents of a 2% wealth tax would not have to call it a tax on 100% of the expected normal return, which might have been politically awkward.

We noted earlier that, if the risk-free rate of return is negligible and risky returns are all-important, a capital income tax—even if it has a high nominal rate—may end up have little impact on high-end wealth inequality when the preconditions for portfolio adjustment (that is, a linear rate and complete capital markets) sufficiently hold.<sup>135</sup> A wealth tax permits one to avoid this conundrum. Thus, recall the earlier example where the taxpayer had \$200 to invest and the normal risk-free rate of return was zero, leading to the conclusion that both the income tax and the consumption tax could be fully offset through portfolio adjustments. With even just a 1% wealth tax, the taxpayer would face an expected tax burden of \$2 per year that could not be offset by leveraging up the pretax risk.<sup>136</sup> More generally, while a wealth tax's cushioning effect on risky ex post outcomes can be eliminated by leveraging up the pretax riskiness of one's bets, the same conclusion does not hold for the burden that it places on the value of one's assets at the start of the tax period.

All this suggests that a wealth tax, applied using tax rates that are politically and optically imaginable, can indeed significantly affect high-end wealth concentration, at least leaving aside long-term tax in-

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<sup>134</sup> In principal, one could eliminate this difference by pegging the wealth tax and/or capital income tax rates to adjust automatically to changes in the normal risk-free rate, assuming that rate could readily be identified.

<sup>135</sup> See note 133 and accompanying text.

<sup>136</sup> A taxpayer who had a zero net worth but was able to bet \$100 on a coin toss would be able to fully offset, say, a 50% percent wealth tax by simply doubling the bet, if the wealth tax was refundable (that is, it gave money to people with negative net worth). However, not only do we know of no such wealth taxes, but positing the underlying transaction would suggest considering both credit issues ex ante and the actual resolution of insolvency ex post.

vidence questions.<sup>137</sup> The main potential downside, which may be relevant even if one strongly favors reducing inequality, is that the convention for describing the rate, as a percentage of wealth rather than of returns to wealth, might encourage casual observers to view its incentive effects as trivial even if they are in fact significant.

*B. Would an Unapportioned National Wealth Tax in the United States Be Constitutional?*

Whatever one thinks of a wealth tax on the merits, in the United States it would face a constitutional challenge if imposed at the national level. Article I of the U.S. Constitution prohibits any “direct tax” unless apportioned among the states.<sup>138</sup> An apportioned tax is one in which the total tax burden is allocated among the states in proportion to their population, so a state with 10% of the population would be charged 10% of the total tax. If the state were poorer than average, the population-based formula would require a higher tax rate, while for richer states it would require a lower rate. Accordingly, the tax rate not only would differ from state to state, but would so do in inverse proportion to average in-state wealth. Taxes levied in this manner are uniformly seen as undesirable. Thus, the requirement of apportionment essentially rules out levying any direct tax.

In 1895, the U.S. Supreme Court held that an unapportioned federal income tax is unconstitutional under this clause, as a “direct tax.”<sup>139</sup> Hence, enactment of the Sixteenth Amendment was required to make federal income taxation feasible. More generally, the term “direct tax” is generally thought to be synonymous with a property tax. A conventional wealth tax would be a property tax—albeit, more broad-based than those generally applied by the states if it included financial wealth. As a result, a straightforward, unapportioned wealth tax would face a strong constitutional challenge.<sup>140</sup>

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<sup>137</sup> Suppose, for example, that the wealth tax significantly reduced saving, and that this led  $r$  to be higher and wages towards the middle and bottom of the distribution to be lower. Then the incidence of the wealth tax might be shifted from wealthy taxpayers to those who were lower in the distribution.

<sup>138</sup> U.S. Const. art I, § 9, cl. 4.

<sup>139</sup> *Pollock v. Farmers' Loan & Trust Co.*, 157 U.S. 429 (1895).

<sup>140</sup> See Erik M. Jensen, *The Apportionment of “Direct Taxes:” Are Consumption Taxes Constitutional?*, 97 *Colum. L. Rev.* 2334, 2350-97 (1997). Joseph Dodge opines that an unapportioned federal wealth tax would be unconstitutional if levied on real and tangible property but not if levied on intangible personal property, such as stock. 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). Bruce Ackerman argues that the case that held such a tax unconstitutional, *Pollock*, 157 U.S. 429, conflicts with more recent jurisprudence and would not (and should not) be followed. Bruce Ackerman, *Taxation and the Constitution*, 99 *Colum. L. Rev.* 1, 6 (1999). Calvin Johnson reaches a similar

Deborah Schenk has suggested that the constitutional prohibition on wealth taxes (if they are “direct” and unapportioned) could be elided by instead enacting an income tax on the riskless return (thus bringing the enactment within the protective reach of the Sixteenth Amendment).<sup>141</sup> For individuals earning that return, any desired wealth tax could be translated into an equivalent income tax (at least, assuming that the riskless rate is positive). For example, if the riskless rate (measured, perhaps, by inflation-adjusted Treasuries) were 2%, an additional 50% tax might be levied on the first 2% that the taxpayer earned. For taxpayers with at least that much investment income, results above the 2% threshold would be ignored. Thus, for all such individuals, at least *ex post*, the 50% “income tax” would be equivalent to a 1% wealth tax.

Suppose, however, an investment earns less than 2%, or even loses money. Then retaining the equivalence between the “income tax” and a wealth tax—and avoiding the creation of incentives for risky investment—would require presumptively assuming a 2% return without regard to the actual result. One could call this a “constructive” income rule, like many in the actual Code that effectively presume a given economic result regardless of the actual one. Examples of constructive rules include those governing depreciation for tangible assets with finite useful lives,<sup>142</sup> amortization for intangible assets,<sup>143</sup> and original issue discount on debt instruments.<sup>144</sup> However, in these provisions, the mismatch between the amount constructively included and the amount actually realized is only temporary. Through basis adjustments, tax and actual financial results are ultimately reconciled upon sale of the asset.

If the “income tax” version of a wealth tax were to precisely mirror a wealth tax, maintaining the equivalence would rule out any such rec-

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conclusion, on the ground that the apportionment rule was and should be intended to apply only to capitation taxes, which can in fact be easily apportioned. Calvin H. Johnson, *Apportionment of Direct Taxes: The Foul-Up in the Core of the Constitution*, 7 *Wm. & Mary Bill Rts. J.* 1, 72 (1996).

The recent decision in *National Federation of Independent Business v. Sebelius*, 132 S. Ct. 2566 (2012), suggests that the current Supreme Court, at least, does not regard the apportionment clause as a dead letter. The Court in that case approved the penalty provisions of the Affordable Care Act as a tax, and then noted that the penalty “does not fall within any recognized category of direct tax.” *Id.* at 2599 (interpreting IRC § 5000A). It elaborated on that conclusion by noting that the penalty was “plainly not a direct tax on the ownership of land or personal property.” *Id.* The decision suggests that a wealth tax would be a direct tax, which would require apportionment.

<sup>141</sup> Deborah H. Schenk, *Saving the Income Tax with a Wealth Tax*, 53 *Tax L. Rev.* 423, 441-42 (2000).

<sup>142</sup> IRC § 168.

<sup>143</sup> IRC § 197.

<sup>144</sup> IRC § 1272.

conciliation.<sup>145</sup> Gain recognized due to receipt of constructive income (but never realized in any economic sense) would never be offset by loss on disposition. Schenk avoids this result by increasing the basis of any asset to reflect gain recognized, so any excess gain recognized would be reconciled with the actual result on disposition. This sensible rule leaves the income tax version of the wealth tax looking very much like an income tax for constitutional purposes and is consistent with the purposes for which Schenk proposes the wealth tax. However, reconciling putative income to actual income leaves the government with some of the investment risk. The downside of tax is thus to some extent balanced by a reduction in after-tax risk; taxpayers may offset the effect of the tax and get back to the no-tax position by increasing the pre-tax level of risk in the manner described in the preceding section.

In sum, in order to precisely mimic a wealth tax, and avoid taxpayer offset through risky investments, the income tax version of a wealth tax would have to permanently ignore actual gain and loss. The tax for a given year would be determined solely by applying the tax rate to one's wealth at the relevant moment. It seems likely that, notwithstanding its title, such a tax would face the same constitutional challenge as a straightforwardly labeled property tax.

Piketty has responded (in oral commentary) to the constitutional wealth tax issue we raise in this paper, by stating: "I realize that this is unconstitutional, but constitutions have been changed throughout history. That shouldn't be the end of the discussion."<sup>146</sup> He surely is right that the topic merits ongoing discussion, even if one is certain that the Supreme Court would strike down an unapportioned federal wealth tax. And constitutional law is far too unpredictable, and its underlying criteria too unspecified, for an adverse Supreme Court ruling to be certain. In the current era of sharp partisan divides between the Court's conservative and liberal wings, the strength of opposing legal arguments might even end up mattering less than which side had five votes when the issue hypothetically came up. Finally, even if a federal wealth tax were initially struck down, the Court's holding might conceivably be overruled or eroded by later rulings. Clearly, however, the constitutional concern affects the wisdom of focusing

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<sup>145</sup> Note that one could correct the measure of actual wealth for a subsequent year's tax base—one simply would not be reconsidering the "income" that was deemed to have been realized in prior years.

<sup>146</sup> Thomas Piketty, Address at the Fourth Annual NYU/UCLA Tax Policy Symposium (Oct. 3, 2014) (quoted in NYU School of Law, Economist and Bestselling Author Thomas Piketty Discusses Wealth Inequality with Diverse Experts (Oct. 7, 2014), <http://www.law.nyu.edu/news/thomas-piketty-capital-twenty-first-century-economist>).



current efforts to address rising high-end wealth inequality in the United States on the prospect of enacting a wealth tax.

## V. HUMAN CAPITAL

### A. *Literary Perspectives on Human Capital Versus Other Capital*

Piketty peppers his description of nineteenth century Europe with references to the novels of Jane Austen and Honoré de Balzac.<sup>147</sup> It is one of the book's charms—and strengths. A novel can provide a nuanced portrait of social relations; for readers familiar with the work, a short reference can raise detailed memories of that portrait.

While Piketty mainly equates Austen's and Balzac's fictional worlds (apart from noting that Austen's heroes were "more rural"<sup>148</sup>), we believe that contrasting them can enrich the social portrait that they offer. Doing so complicates the lessons that he draws, at least from Balzac—in particular, by suggesting a rising role for human capital, as distinct from the mere inheritance of physical or financial capital.

Balzac's work, set in the post-Napoleonic era when great private fortunes could be amassed without the disruptions of war,<sup>149</sup> does indeed, as Piketty suggests, depict an era of rentier (and noble families') preeminence, in which people are judged based on the annual incomes they can command, or at least simulate via their expenditures on housing, clothes, transportation, and incidental activities such as gambling.<sup>150</sup> Yet it is hardly a world in which one's social position is entirely fixed by inheritance. Thus, the lessons that we derive from Balzac's novel *Père Goriot*, the novel that Piketty discusses at greatest length in *Capital in the Twenty-First Century*, differ, at least in emphasis, from his.

*Père Goriot* is named after one of its main characters—as Piketty notes, a self-made capitalist who rose from humble origins through his perspicacity in the grain and pasta business.<sup>151</sup> Goriot succeeds, to the point that one of his daughters is able to marry a high-born count, and

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<sup>147</sup> See, e.g., Piketty, note 1, at 53, 104, 106, 115, 207, 238-40.

<sup>148</sup> Id. at 115.

<sup>149</sup> We note, however, that the Balzac character *Père Goriot* "began to accumulate his fortune" through grain profiteering amid the shortages during the early stages of the French Revolutionary and Napoleonic wars. Honoré de Balzac, *Père Goriot* 87 (Burton Raffen trans., W.W. Norton & Co. 1994) (1835). Piketty, note 1, at 114-15, likewise notes the importance of the wartime era to Goriot's accumulation of his fortune.

<sup>150</sup> In *Père Goriot*, when Rastignac wants to launch himself in high society, he must liquidate much of his family's financial resources, in order to support high-level consumer spending for just long enough to become a player in the social scene who will have opportunities to make his fortune. Balzac, note 149, at 105-11.

<sup>151</sup> Piketty, note 1, at 114.

the other a wealthy banker who has become a Baron.<sup>152</sup> Goriot's financial rise is mainly a story about human capital, although Piketty seems eager to assimilate it to the point that "[m]oney tends to reproduce itself" due to economies of scale and the ease of saving once one is very rich.<sup>153</sup> In support of this point, he offers as illustration a statement in the novel to the effect that, once Goriot had accumulated a certain amount of capital, he was able to "do business with all the superiority that a great sum of money bestows on the person who possesses it."<sup>154</sup> We ourselves view this quotation as having more to do with the complementarity of human and financial capital in the hands of a capable entrepreneur, than with the point that, once one is rich enough, one need not work at all to earn high annual returns.

A central theme of *Père Goriot* is the daughters' King Lear-like exploitation and rejection of their father once he has done all he can for them, and has nothing left to give. If one nonetheless treats the Goriot's père et filles as a single unit, one can see evidence of an important role that marriage serves in Balzac's world. Not just a way of acquiring a fortune, as Piketty emphasizes in describing another key passage in the novel (Vautrin's lecture to Rastignac),<sup>155</sup> it is also a way of using one's fortune to acquire social status.

Admittedly, the daughters' ability to rise based on their father's earnings conforms with, rather than contradicts, Piketty's reading of *Père Goriot*. After all, from their standpoint his human capital has been transmuted into financial capital. His wealth permits them not just to be financially marriageable, but also to acquire at an early age the social graces that they will need to operate within the cutthroat Parisian upper crust. However, when we turn to Eugène de Rastignac, the novel's lead character, the story's implications begin to include some that are distinct from those that Piketty emphasizes.

At least according to Wikipedia, "[i]n French today, to refer to someone as a 'Rastignac' is to call them [sic] an ambitious 'arriviste' or social climber."<sup>156</sup> Whether or not this is true as a matter of contemporary idiomatic usage in French (which we do not know), it certainly would be apt enough if it is true. Rastignac arrives in Paris as an impoverished member of the rural nobility who is grimly determined to rise to the greatest social heights, by one means or another. In the course of Balzac's *Comédie Humaine*, he achieves this to an

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<sup>152</sup> Balzac, note 149, at 84-86.

<sup>153</sup> Piketty, note 1, at 440.

<sup>154</sup> Id. (translating from the original French in Honoré de Balzac, *Père Goriot* 105-09 (Livre de Poche 1983) (1835)).

<sup>155</sup> Piketty, note 1, at 240-41.

<sup>156</sup> Eugène de Rastignac, Wikipedia, [http://en.wikipedia.org/wiki/Eug%C3%A8ne\\_de\\_Rastignac](http://en.wikipedia.org/wiki/Eug%C3%A8ne_de_Rastignac) (last visited Jan. 19, 2015).

extraordinary degree, becoming not just very wealthy but a Count and a high government minister.<sup>157</sup> And he does so through his own personal efforts and abilities—albeit, aided initially by family connections along with his willingness to extract all the up-front cash that he can from his family’s limited fortune. This stake he gambles both figuratively, by spending it on the consumer items that he needs to cut a credible figure in high society, and literally, at genteel sessions of whist for unsettlingly high stakes.<sup>158</sup>

Given Rastignac’s ambitions and trajectory, his story, as conveyed in *Père Goriot* and successor novels in the *Comédie Humaine*, seems clearly to be an early entry in the modern literary genre on upwardly mobile adventurers. It is not just a bildungsroman, but the tale of an aggressive young man’s (not woman’s, in this era!) social and economic rise from humble origins by dint of effort. For other classic French nineteenth century novels in this genre, consider Stendhal’s *Le Rouge et Le Noir*—published just five years earlier, and likewise depicting a young man, who starts out nowhere and with nothing, but who wishes to use his personal efforts and abilities to climb social heights (in this case, reflecting the lead character’s hysterical emulation of Napoleon’s meteoric career).<sup>159</sup> Move forward several decades, and Flaubert’s *Sentimental Education* presents a considerably more jaded and even decadent take on the same basic pattern.<sup>160</sup> So *Père Goriot*, like these other novels, appears to us to be as much or more about parvenus, the transformation of elites, and the transition from aristocracy to capitalism, as it is about a stable rentiers’ world.<sup>161</sup>

Broadening the frame of reference, Rastignac’s story brings to mind a rich body of American parallels that likewise depict upwardly mobile social and economic adventurers, albeit in the very different New World social setting. These range from the Horatio Alger novels,<sup>162</sup> to Theodore Dreiser’s classic Frank Cowperwood trilogy about a tycoon

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<sup>157</sup> Honoré de Balzac, *The Unconscious Mummies* 57 (Ellen Marriage trans., J.M. Dent & Co 1897) (1846); Honoré de Balzac, *The Deputy of Arcis* 238 (Katharine Prescott Wormeley trans., Roberts Brothers 1896) (1847).

<sup>158</sup> Balzac, note 149, at 174-76, 181.

<sup>159</sup> See Stendhal, *The Red and the Black* 17, 86 (Burton Raffel trans., Modern Library Classics 2004) (1830).

<sup>160</sup> Gustave Flaubert, *L’Education Sentimentale* (1869). Balzac perhaps can match Flaubert in cynicism, but most definitely not in jadedness.

<sup>161</sup> To be fair, Piketty notes this by quoting Rastignac’s famous closing challenge to the city of Paris: “It’s just you and me now!” Piketty, note 1, at 238 (translating from the original French in Honoré de Balzac, *Père Goriot* 131 (Livre de Poche 1983) (1835)). But this is not the main aspect that he emphasizes.

<sup>162</sup> See, e.g., Horatio Alger, *Mark the Match Boy* (1869); Horatio Alger, *Ragged Dick* (1867).

who rises from merely comfortable origins,<sup>163</sup> to *The Great Gatsby*.<sup>164</sup> To be sure, Rastignac appears to derive his fortune more through social machinations than business activity as such, although he does apparently participate lucratively in shady financial deals.<sup>165</sup> However, the fact that he may follow a different wealth production model than the financier and railway tycoon Frank Cowperwood, or the bootlegger and gangster associate Jay Gatsby né James Gatz, at least partly reflects his facing a very different opportunity set.

Piketty emphasizes the super-criminal Vautrin's speech to Rastignac, which makes the point that a law career could never offer the young man a sufficiently large, fast, or certain payoff to be worth the effort. Hence, Vautrin argues, Rastignac should aim instead to marry someone with a huge fortune, and not to fuss if this involves complicity in murder. (The shy and evidently sweet young Victorine, who has been rejected by her extremely rich father, will take her rightful place as heir once Vautrin has contrived to get her brother killed in a duel.)<sup>166</sup> Piketty deduces that Vautrin has decisively answered, "the key question: work or inheritance?," in favor of the latter.<sup>167</sup> He likewise views Vautrin's lecture as offering "proof, if proof were needed, that study leads nowhere."<sup>168</sup>

We see Vautrin's lecture as suggesting instead that legal study is simply the wrong way to deploy one's all-important personal abilities in making a fortune. Vautrin urges Rastignac to do a one-time cash-in, by using his charms on poor Victorine while she still remains poor and will assume (however mistakenly) that any suitors must be acting in good faith. Rastignac, however, while duly exchanging an apparent marriage commitment with her before she has learned of her impending good fortune, ends up going another way due both to his ethical qualms about the murder, and to the fact that he does not find her nearly so attractive as Goriot's more selfish and morally compromised, but also more alluring, high-society daughter, Delphine de Nucingen (wife of the banker who has become a Baron).<sup>169</sup>

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<sup>163</sup> Theodore Dreiser, *The Financier* (1912); Theodore Dreiser, *The Titan* (1914); Theodore Dreiser, *The Stoic* (1947). All novels are based on the life of the tycoon Charles Yerkes. See David A. Zimmer, *Panic!: Markets, Crises, and Crowds in American Fiction* 191 (2006).

<sup>164</sup> F. Scott Fitzgerald, *The Great Gatsby* (1925). Gatsby is an arriviste, competing against the more established Tom Buchanan.

<sup>165</sup> See Honoré de Balzac, *The Firm of Nucingen*, in *The Lily of the Valley, The Firm of Nucingen, The Country Doctor and Other Stories* 295-300 (James Waring, Ellen Marriage & Clara Bell trans., Dana Estes & Co. 1901) (1838). This banker is none other than the apparently complaisant husband of his first high society mistress.

<sup>166</sup> Balzac, note 149, at 209.

<sup>167</sup> Piketty, note 1, at 240.

<sup>168</sup> Id. at 412.

<sup>169</sup> Balzac, note 149, at 224-26.

In short, rather than procuring all at once a huge financial return on his looks and personal charm, Rastignac will toil more laboriously for yet greater rewards (counting the social and sexual as well as the financial). These he will not owe to any one person as particularly as he would have owed it all to Vautrin (and/or to Victorine) had he taken, as Richard Nixon liked to say more than a century later, “the easy way out.”<sup>170</sup>

Given all this, we interpret *Père Goriot*, in common with various other great (and in some cases not so great) nineteenth and early twentieth century novels of similar genre, as evidencing more than just the importance of capital and rents in earlier eras. They also bespeak an intensive focus, during these eras, on individual achievement and on the excitement and honor (often, along with moral compromise) that are associated with aggressively pursuing upward economic and social mobility.

We now extend Piketty’s literary analysis forward in time to the twentieth century’s Great Easing in high-end wealth inequality. Such a temporal extension of one’s focus makes it irresistibly tempting (at least for us) to focus on P.G. Wodehouse—the great comic poet of rentier decline amid the Great Easing. Consider Bertie Wooster, rentier supreme from the period when the group’s social and economic pre-eminence had evidently faded. Bertie lives comfortably enough off his inheritance, which is just as well given how unsuited he evidently would be to pursue even the most modest working career. His personal abilities are so slight that even breaking off an undesired wedding engagement—or, for that matter “sneer[ing] at a cow creamer,” without mishap, to satisfy the whim of his Aunt Dahlia<sup>171</sup>—appears to lie beyond his unaided power.

Bertie lives in a world where self-made millionaires (many of them American) frequently intrude, and where his Aunt Agatha—in his words, “the one who chews broken bottles and kills rats with her teeth”<sup>172</sup>—eloquently expresses the new productive creed:

It is young men like you, Bertie, who make the person with the future of the race at heart despair. Cursed with too much money, you fritter away in idle selfishness a life which might have been made useful, helpful and profitable. You do nothing but waste your time on frivolous pleasures. You are simply an anti-social animal, a drone.<sup>173</sup>

<sup>170</sup> See Eric Alterman, *Sound and Fury: The Making of the Punditocracy* 135 (2000).

<sup>171</sup> P.G. Wodehouse, *The Code of the Woosters* 5-7 (W.W. Norton & Co. 2011) (1938).

<sup>172</sup> P.G. Wodehouse, *The Mating Season* 1 (1938).

<sup>173</sup> P.G. Wodehouse, *The Inimitable Jeeves* 35 (Overlook Press 2009) (1923).

As comfortable as Bertie finds his life—at least, when not threatened by unwanted marriage, ill-mannered magistrates, or the prospect of exclusion from the superb cooking of his Aunt Dahlia’s chef Anatole—we can see how much ground the rentier has lost, both socially and economically, in Wodehouse’s era, as compared to that of Austen or even Balzac. Bertie is frequently scorned, or at best pitied. To sober-minded acquaintances such as aunts and prospective in-laws, his not working for a living typically communicates, not that he is a true gentleman, but that he is unserious.<sup>174</sup> (This is not a critique that, say, Darcy risked facing in *Pride and Prejudice*.)

Bertie is very much a transitional figure, a rentier in a world in which human capital—a catch-all term to encompass education, skill, and particular character traits—is playing an increasingly dominant role. In the present-day United States, human capital reigns supreme and, as Piketty notes, appears to be the main driver of increased high-end wealth concentration.<sup>175</sup> In the rest of this Part V, we discuss the definition and significance of human capital, along with the challenges that it raises for redistributive tax policy. We leave it to others to decide which dramatic character (Tom Wolfe’s Sherman McCoy?<sup>176</sup> The real-life Jordan Belfort from Martin Scorsese’s *The Wolf of Wall Street*?<sup>177</sup>) best represents its role in an era of immense high-end wage as well as wealth inequality.

### B. Reasons for Using “Human Capital” as a Concept

Common usage of the term “human capital” reflects that one’s ability to work and earn income has economic value. Thus, each of us effectively owns a productive asset. What is more, this asset presents its owner with many of the same choices and issues as other assets. For example, one can try to increase its value through investment, such as education and job training. In addition, just as with other assets that have finite useful lives, one faces the inevitable prospect of its depreciating over time. One also faces the risk that its market value will unpredictably fluctuate, due either to events in one’s own life or to external forces that change market prices. The fact (emphasized by Piketty) that human capital generally is nontradable<sup>178</sup> can worsen this risk, by impeding diversification, hedging, and borrowing against

<sup>174</sup> See, e.g., id at 34-35; P.G. Wodehouse, *Bertie Wooster Sees It Through* 155 (Simon & Schuster 2000) (1954).

<sup>175</sup> Piketty, note 1, at 298 (noting that “rising inequality in the United States. . . was largely the result of an unprecedented increase in wage inequality”).

<sup>176</sup> See Tom Wolfe, *The Bonfire of the Vanities* (1987).

<sup>177</sup> *The Wolf of Wall Street* (Paramount Pictures 2013).

<sup>178</sup> Piketty, note 1, at 46.

its expected value. This provides a key rationale for taxing labor income (or equivalently, the market consumption that it funds), thus providing insurance of a sort not just against ex ante ability risk, but also against subsequent value shocks.<sup>179</sup>

Piketty accepts the logic behind the concept of human capital, but considers use of the term “unfortunate,” given the importance that he places on distinguishing between its productive fruits and those of nonhuman capital.<sup>180</sup> He does, however, sharply criticize what he calls the “rising human capital hypothesis,” which holds that “production technologies tend over time to require greater skills on the part of workers, so that labor’s share of income will rise as capital’s share falls.”<sup>181</sup> He says that this hypothesis logically could have been true,<sup>182</sup> and indeed that there may be some “tendency for labor’s share to increase over the very long run,”<sup>183</sup> but that it mainly has not been true in recent decades (or at least has been overwhelmed by contrary forces), and that a mistaken belief in its degree of truth “permeates the whole modern theory of human capital . . . even if it is not always explicitly formulated.”<sup>184</sup> He views the central role that he attributes to nonhuman capital, rather than human capital, in triggering rising high-end wealth inequality as critical both to understanding what has happened and to diagnosing possible responses.

In the rest of this Part, we address four issues pertaining to human capital and Piketty’s analysis. First, we define human capital and explore what may give rise to its being high, rather than low, for a given individual. Second, we discuss how determining the relative importance of human and other capital as causes for rising high-end concentration might affect one’s view as to both the gravity of the problem and the effectiveness of various alternative responses. Third, we examine how the heterogeneity of returns to human capital may complicate the task of devising tax policy responses to high-end wealth concentration. Fourth, we examine how one’s views might change if one took a global, rather than U.S. or OECD-focused, perspective on these issues.

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<sup>179</sup> See Varian, note 111, at 52-54. Human capital’s nontradability, and the consequent difficulty of borrowing against its expected value, also impedes lifetime consumption smoothing, as in the case where a college, graduate, or professional student cannot improve her current standard of living by borrowing against expected future earnings.

<sup>180</sup> Piketty, note 1, at 46. He also views human capital’s nontradability as supporting its distinguishability from other capital. *Id.*

<sup>181</sup> *Id.* at 21.

<sup>182</sup> *Id.* at 385.

<sup>183</sup> *Id.* at 42.

<sup>184</sup> *Id.* at 385.

### C. *Defining Human Capital*

We define human capital, for our purposes, as the present value of one's remaining lifetime earning ability.<sup>185</sup> In James Mirrlees' classic optimum income taxation (OIT), ability is simply one's wage rate, multiplied by the time allotment that everyone shares, and deployed to maximize one's utility from market consumption plus leisure.<sup>186</sup> However, since there is only one period in the model, the notion of human "capital" does not arise.

With multiple periods, the basic OIT model can be expanded to include such elements as investment, depreciation, and uncertainty. Multi-period human capital, unlike single-period ability, need not be (unrealistically) viewed as fixed and innate. However, even with the income forecast that underlies it changing over time, partly due to the choices one makes but also due to external shocks, there still remains a crucial underlying element that, even if not truly innate (in a nature versus nurture sense), is handed to one as if drawn in a lottery, rather than being chosen.

What unchosen elements might help give rise to high human capital? While intelligence ("IQ" if we regard it as unidimensional) may play a role, one should not exaggerate how exclusively it matters, even if one adds in social intelligence and temperament. Empirical evidence suggests, for example, that both height and physical attractiveness contribute positively to earnings, presumably via "ability" or opportunities rather than choice.<sup>187</sup> More generally, however, while those of us who prove *ex post* to be lottery winners may like to think of ability as a purely personal attribute, it is more realistically viewed as a function of the relationship between a given individual and the specific environment in which she finds herself. Just as the succession of species shows that there is no such thing as innate evolutionary "fitness"—it always plays out relative to the environment in which one finds itself—so earnings ability depends on the broader setting.

Suppose that, purely for genetic reasons *Ann* has greater math skills or athletic ability, whereas *Brenda* can more robustly resist dysentery. This might cause *Ann* to be the more "able" in twenty-first century

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<sup>185</sup> But see text accompanying notes 210-39, where we more narrowly define human capital as including only the present value of expected future earnings given one's actual labor supply, for purposes of comparing how different types of tax systems treat human capital as compared to other capital.

<sup>186</sup> Mirrlees, note 22, at 176-78.

<sup>187</sup> On height and earnings, see, e.g., N. Gregory Mankiw & Matthew Weinzierl, *The Optimal Taxation of Height: A Case Study of Utilitarian Income Redistribution*, *Am. Econ. J.: Econ. Pol'y*, Feb. 2010, at 155. On physical attractiveness and earnings, see generally Daniel S. Hamermesh, *Beauty Pays: Why Attractive People Are More Successful* (2013); John Karl Scholz & Kamil Scinski, *Facial Attractiveness and Lifetime Earnings: Evidence from a Cohort Study*, 97 *Rev. Econ. & Stat.* 14 (2015).



America, and *Brenda* in eighteenth century America. Or suppose that their skin colors are different, and that they live in a racist society in which one of them either faces legal restrictions, or finds that people are reluctant to do business with her. This may lower her earnings “ability” and human capital even though, from an ethical standpoint, one might say that it has absolutely nothing to do with her. The fact that she would be able to succeed if given a fair chance only matters, so far as “ability” is concerned, if she gets that chance.

Now suppose one lives in an apparently meritocratic society in which people who are lucky enough to have rich parents get special tutoring that improves their secondary school performance. They then are further assisted by their parents’ connections and experience in getting admitted to (and paying for) top colleges. While at college, they make connections that pave the way for later business success. This may cause such individuals to end up having higher ability and human capital, as measured by actual and potential labor market outcomes, than others whose purely personal endowments were just as great, but whose parents were not as well-situated. In effect, in such a case, human capital is dynastically transmitted, but by environmental rather than genetic means.

In sum, “ability,” deployed over time as human capital, is important because it determines (or rather expresses) the extent of one’s material good fortune. Viewing it as of central distributional importance does not imply endorsing the meritocratic claim that material success generally reflects the “personal merit and moral qualities” that, as Piketty notes, the members of elites are prone to ascribe to themselves.<sup>188</sup>

#### *D. Human Capital Versus Other Capital in the Rise of High-End Wealth Inequality: Why Does It Matter?*

Again, Piketty insists that human capital is *not* at the heart of rising high-end wealth inequality around the world. Even in the United States, which he agrees is “primarily characterize[d by] . . . a record level of inequality of income from labor,” he emphasizes that “there is nothing to prevent the children of supermanagers from becoming rentiers,”<sup>189</sup> while noting as well that executives’ gigantic salaries almost cannot be substantially spent, and likely will end up in most cases being inherited.<sup>190</sup>

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<sup>188</sup> Piketty, note 1, at 417-18 (noting a survey of members of American and French educated elites who apparently viewed their rewards as reflecting, not just their “rigor, patience, work, effort” but also their “tolerance [and] kindness”).

<sup>189</sup> *Id.* at 256.

<sup>190</sup> See *id.* at 264-65, 291-303.

Why should it matter whether human capital or other capital is at the heart of the story? Obviously, one would want to know out of basic intellectual curiosity, even if the answer had no bearing on how we might assess and respond to rising high-end inequality. In fact, however, the relative roles of human and other capital may affect both the perceived and the actual merits of the phenomenon. Their relative roles also are relevant to assessing possible alternative policy responses.

### 1. *Perceived Merits of Addressing Inequality*

As Piketty rightly notes, belief in general entitlement to the fruits of one's labor income—extending in the United States, at least, to “meritocratic extremism” that celebrates “winners” who are assumed to have prevailed based purely on their hard work and exemplary personal qualities<sup>191</sup>—plays a central role in the “apparatus of justification”<sup>192</sup> for inequality. Those who see the trend as unobjectionable may argue both that fair processes produced the inequalities we observe, and that “preventing the rich from earning more would inevitably harm the worst-off members of society.”<sup>193</sup>

At least in the United States, however, while empirically based (whether or not accurate) meritocratic arguments play an important role in justifying rising high-end inequality, it is not clear how politically indispensable such arguments actually are. Ours is not necessarily a country in which “[i]nequalities must . . . be [viewed as] just and useful to all. . . based only on common utility,”<sup>194</sup> in order to win political acceptance. Libertarian arguments that rest on celebrating the autonomy of the individual also play an important justificatory role.<sup>195</sup> Moreover, in a country where politics and media access are extremely costly, and where there are almost no constitutionally permissible limits (according to the current U.S. Supreme Court) on the exercise of

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<sup>191</sup> Id. at 416-18.

<sup>192</sup> Id. at 264.

<sup>193</sup> Id. In some circles in the United States, “job creator” has become an all-purpose synonym for “wealthy individual.” See, e.g., Alexander Burns, Romney: Obama Waging “War on Job Creators,” Politico (May 23, 2012, 12:31 PM), <http://www.politico.com/blogs/burns-haberman/2012/05/romney-obama-waging-war-on-job-creators-124350.html>.

<sup>194</sup> Piketty, note 1, at 422.

<sup>195</sup> For example, recall “share the wealth around” dispute from the 2008 U.S. presidential campaign, and the “you didn’t build that” dispute from the 2012 presidential campaign. John Harwood, “Spreading the Wealth” in Democrats’ Favor, The Caucus, N.Y. Times (Nov. 27, 2011, 11:34 PM), <http://thecaucus.blogs.nytimes.com/2011/11/27/spreading-the-wealth-in-democrats-favor/> (addressing the “share the wealth around” comment); Aaron Blake, Obama’s “You Didn’t Build That” Problem, Wash. Post (July 18, 2012, 12:56PM), [http://www.washingtonpost.com/blogs/the-fix/post/obamas-you-didnt-build-that-problem/2012/07/18/gJQAJxyotW\\_blog.html](http://www.washingtonpost.com/blogs/the-fix/post/obamas-you-didnt-build-that-problem/2012/07/18/gJQAJxyotW_blog.html) (addressing the “you didn’t build that” comment).

financial power to influence political debate and electoral outcomes, sustaining the actual empirical plausibility of particular meritocratic arguments in favor of high-end inequality might amount to little more than icing on the cake.

In terms of how much the optics of meritocracy affect political outcomes, we may learn more over time about the extent to which actual social mobility is needed to sustain the belief that everyone has a fair chance to succeed. Wage-based inequality might seem to imply high mobility because, as Piketty notes, human capital transmission is “more complicated” than that for other capital.<sup>196</sup> Yet, to date, rising high-end U.S. wage inequality has not been accompanied by rising mobility.<sup>197</sup> This may reflect the effectiveness of transmission mechanisms for human capital, such as through unequal access to good education and to the networking opportunities afforded to those who attend elite institutions.

## 2. *Actual Merits of Addressing Inequality*

Turning from perception to substance, the relative roles of human capital and other capital may affect how one analyzes rising high-end wealth inequality. As we noted earlier, Piketty’s analysis, attributing the trend mainly to other capital and  $r > g$ , can be interpreted, within an OIT-influenced welfare economics framework, as suggesting that high saving, high returns to saving, and/or inheritance may have negative distributional externalities that could call for Pigovian taxation.<sup>198</sup> Identifying human capital, rather than other capital, as the main source of the trend could support viewing those mechanisms as, at a minimum, less central to the analysis. They might still be targeted out of convenience, but not as the root of the problem.

Under some frameworks, viewing human capital as the main source of rising high-end inequality might lead one to adopt a sanguine view of wealth concentration. This might be true, for instance, if one sees financial inheritance as involving undeserved good fortune, but yet takes a strongly meritocratic view of success in labor market competition. We ourselves reject such a view, based not just on a welfarist framework for evaluating societal outcomes, but also on the ground that it is descriptively naïve. Luck extends to human capital no less than anything else, and people might pervasively insure against ability risk if this were feasible before they knew how they had done in the “ability lottery.”

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<sup>196</sup> Piketty, note 1, at 420.

<sup>197</sup> *Id.* at 299.

<sup>198</sup> See Section II.E.

It is, to be sure, true that, if fair competition results in people's reaping rewards from labor supply that reflect their actual social productivity, then there are incentive reasons for not overly dampening incentives. But in an OIT framework, this must be traded off against the distributional benefit of reducing inequality. High marginal tax rates at the top may also be supported by the Diamond-Saez view that the social marginal value of consumption at the top is effectively zero,<sup>199</sup> and on Pigovian grounds if one believes that high-end wage inequality yields negative externalities even without regard to savings and inheritance.<sup>200</sup>

How might one go about analyzing the trade-off between equity and efficiency? Piketty responds to efficiency concerns over high wage taxation by emphasizing the central role that sharply rising executive compensation has played in the U.S. labor-based wealth concentration. He cites recent corporate governance literature suggesting that, in publicly traded companies, executive salaries may bear little relationship to marginal productivity, and appear instead to reflect insider control. He notes that the increase in corporate manager compensation has been much greater in the United States than Europe, but that there is no evidence that the greater U.S. increase has led to greater productivity.<sup>201</sup> He notes, finally, that the lower tax rates in the United States have increased the payoff from using insider knowledge or agency autonomy to extract rents in the form of high manager salaries.<sup>202</sup> He concludes that tax rates as high as 80% might be possible without reducing the companies' productivity (which might even improve if governance distortions were thereby addressed).<sup>203</sup>

While we agree that corporate governance problems have contributed to high-end wage growth, one might explain that growth without a theory of rent extraction. As Steve Kaplan and others have pointed out, the same phenomena of rising high-end labor compensation is found in virtually all high-skilled jobs, including those with compensation levels subject to intense competitive pressures.<sup>204</sup> As discussed below, the highest paid hedge fund managers typically earn twenty-fold what the highest paid CEOs earn. They are paid on commission, as it were, and compete for the business of wealthy individuals and

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<sup>199</sup> See note 73 and accompanying text.

<sup>200</sup> See Thomas D. Griffith, *Progressive Taxation and Happiness*, 45 B.C. L. Rev. 1363, 1381-88 (2004).

<sup>201</sup> Piketty, note 1, at 510.

<sup>202</sup> *Id.* at 512.

<sup>203</sup> *Id.* at 512-13.

<sup>204</sup> Steven N. Kaplan, *Executive Compensation and Corporate Governance in the United States: Perceptions, Facts, and Challenges*, 2 Cato Papers Pub. Pol'y 99, 122-37 (2012).

professional managers.<sup>205</sup> Partners in large law firms have also seen a rise in compensation proportionately equal to that of corporate managers.<sup>206</sup> For these and other reasons, many (though not all) economists have rejected the argument that principal-agent problems, as distinct from the effects of globalization and technological change on the premia for skilled labor, provide the chief cause for widening wage inequality.<sup>207</sup>

All that said, we note that, in the financial sector, at least, the link between private benefit and social benefit is often open to question. Consider, for example, the profits that high-speed traders derive from their ability to respond, microseconds faster than others in the market, to the posting of buy and sell orders on public exchanges.<sup>208</sup> These are predominantly rent-seeking profits, extracted from other participants in capital markets who do not have access to the same information. Even when trading profits reflect being the first to act on publicly available information, the private gain from slightly accelerating price adjustment may greatly exceed the social gain. More generally, skewed incentives in the financial sector, such as those underlying “heads we win, tails you lose” risk-taking by firms that are too “big to fail,” arguably are endemic, and have contributed to the sector’s astounding growth in recent decades.<sup>209</sup> Insofar as this is the case, high marginal rates at the top might not greatly reduce social productivity (or might even improve it), even in the absence of significant principal-agent problems.

### *E. Significance of Human Capital for Tax Policy Analysis*

#### *1. Taxes That Might Reduce High-End Wage Inequality*

The dominant role of human capital in creating high-end U.S. wealth concentration may greatly complicate redistributive tax policy, especially in light of constitutional and administrative concerns. Thus, consider a few representative individuals who are at the top of the wealth and income distribution. We start with Larry Ellison, the founder and CEO of Oracle. Ellison, like many of the super-rich in this country, did not receive a huge inheritance. He was adopted by

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<sup>205</sup> See Carl Ackermann, Richard McEnally & David Ravenscraft, *The Performance of Hedge Funds: Risk, Return, and Incentives*, 54 *J. Fin.* 833, 834-35 (1999); see also note 212 and accompanying text.

<sup>206</sup> Kaplan, note 204, at 122-37.

<sup>207</sup> See, e.g., Piketty, note 1, at 333-35; see generally Marianne Bertrand & Sendhil Mullainathan, *Are CEOs Rewarded for Luck? The Ones with Principals Are*, 116 *Q.J. Econ.* 901 (2001).

<sup>208</sup> For a recent popular discussion of high-speed trading, see generally Michael Lewis, *Flash Boys: A Wall Street Revolt* (2014).

<sup>209</sup> See generally Mihir Desai, *The Incentive Bubble*, *Harv. Bus. Rev.*, Mar. 2012, at 124.

middle-class parents, dropped out of college, formed Oracle, and has headed the company during its meteoric rise.<sup>210</sup> For many years, Ellison was known for selling little or none of his founder's stock. He was the highest paid CEO in 2012, with an estimated \$96 million of total compensation.<sup>211</sup> While this was not exactly a small take, it pales beside his roughly \$40 billion net worth. It might also pale in comparison to his annual consumption, which he can easily finance by borrowing against the value of his stock. For 2012, his income was roughly the same as that received by the highest paid athlete (Floyd Mayweather) and entertainer (Tom Cruise), but was much less than that received by top hedge fund managers such as but was much less than that received by top hedge fund manager David Tepper, who earned \$2.2 billion.<sup>212</sup>

What kinds of taxes might one use to address these disparate examples of extraordinary returns to human capital? In the discussion that follows, we ignore incentive effects as well as long-term incidence questions, and simply ask what administratively feasible taxes would impose tax liabilities on those at the top of the pyramid.

## 2. *Surtax on Capital Income*

A surtax on capital income might seem the most obvious way to reduce wealth concentration. Current rates could be raised across the board, or the preferential rate for dividends and capital gains might be eliminated. One difficulty with that approach was discussed in Part IV. The return to risk comprises a primary component of investment return, and taxpayers may be able to offset a tax on that return by increasing the pretax risk of their investment portfolio. A second set of difficulties is suggested by the above portrait of human-capital fueled wealth. The relationship between income, on the one hand, and wealth and consumption on the other, is uneven. Returning to our representative super-wealthy taxpayers, a surtax on capital income would not get at Ellison's wealth, under current U.S. income tax law, since he does not sell shares or receive dividends.<sup>213</sup> How effectively it addressed the income earned by Simons and others in the financial services sector would depend on whether that income was character-

<sup>210</sup> See Larry Ellison, Entrepreneur, CEO, <http://www.biography.com/people/larry-ellison>.

<sup>211</sup> Karl Russell, Executive Pay by the Numbers, N.Y. Times (June 29, 2013), <http://www.nytimes.com/interactive/2013/06/30/business/executive-compensation-tables.html>.

<sup>212</sup> Julie Creswell, Pay Stretching to 10 Figures, N.Y. Times, Apr. 15, 2013, at B1, available at, <http://dealbook.nytimes.com/2013/04/15/pay-stretching-to-10-figures/>.

<sup>213</sup> The entity-level corporate tax may play a role in such a case, but presumably cannot apply the surtax rate just to the profit shares of the wealthiest shareholders. See Subsection V.E.3, immediately below.

ized as involving returns to capital or to labor. It would not get at the labor income of Mayweather and Cruise.

### 3. *Surtax on Corporate Income*

A tax on large multinational corporations could be thought of as a subset of the capital tax surtax. As such, it would face all of the difficulties described in connection with that tax. In addition, relative to the capital surtax, it would be both over- and under-inclusive in its breadth. It would be over-inclusive because it would apply proportionately to less wealthy shareholders, and under-inclusive because it would not affect those who hold wealth in other forms.<sup>214</sup> In addition, as noted earlier in Section III.C, corporate income taxation can be highly ineffective given companies' ability to exploit corporate residence mobility and the source rules for corporate income.

### 3. *Surtax on High Labor Income (or High Income from Any Source)*

A surtax on high labor income would get at virtually all of Mayweather's and Cruise's income, and, if it were high enough, would significantly affect their wealth (because their ratio of income to wealth is relatively high). The tax would have a relatively small effect on Ellison's wealth, and virtually none on wealthy owner-employees at the top of the wealth distribution, such as Steve Jobs (during his lifetime) or Warren Buffett, who receive little salary for their services as CEOs. Extending the surtax to all income would combine these effects with those of the capital tax surtax, discussed immediately above, except that labeling income as being of one type or the other would no longer matter in the same way.

### 4. *Reforming the Tax Treatment of Income in Particular Sectors*

Eliminating "loopholes" and reforming the treatment of certain forms of income would at least initially reduce after-tax returns to those already in those sectors. For example, amending the law to treat certain returns to hedge fund managers as ordinary income, rather than capital gain, might reduce wealth in the financial sector.<sup>215</sup> Further progress in this regard could result from cracking down on ag-

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<sup>214</sup> The tax presumably would affect the equilibrium rate of return for all who invest after the enactment of the tax.

<sup>215</sup> See Staff of the H. Comm. on Ways and Means, 113 Cong., Tax Reform Act of 2014 Discussion Draft: Section by Section Summary 120-22 (2014), available at [http://waysandmeans.house.gov/uploadedfiles/ways\\_and\\_means\\_section\\_by\\_section\\_summary\\_final\\_022614.pdf](http://waysandmeans.house.gov/uploadedfiles/ways_and_means_section_by_section_summary_final_022614.pdf).

gressive planning techniques, such as that recently used by hedge fund founder and manager James Simons and others to avoid paying taxes on billions of dollars in trading profits.<sup>216</sup>

### 5. *Larger Scale Income Tax Reform*

More encompassing income tax reform could be used to increase and rationalize the system's impact on wealth. The principal method by which Ellison and others avoid tax—borrowing off untaxed proceeds—could be eliminated by taxing the receipt of debt principal to the extent it is not re-invested and exceeds prior basis.<sup>217</sup> The step-up in basis on death might be eliminated.<sup>218</sup> Corporate earnings might be taxed through the business enterprise tax proposed by Edward Kleinbard,<sup>219</sup> or through a mark-to-market system as suggested by several authors.<sup>220</sup>

### 6. *Enactment of a Progressive Consumption Tax*

Still more ambitiously, the present system might be replaced or supplemented by a progressive consumption tax. The merits of that tax have been exhaustively discussed in the public finance literature. In general, the burden on wealth imposed by a progressive consumption tax would be invariant with respect to the make-up of that capital (for example, human, financial, tangible). In that respect, all individuals in our representative pool of the super-rich would be treated in a consistent manner. A consumption tax, unlike an income tax, would also impose the same present value burden on all wealth, including wealth that is held for long periods of time. As discussed above, in connection with Fisher's tale of three brothers, this comports with some measures of equity but not others. Relative to an income tax, a consumption tax treats investments more favorably, and is often expected to increase the amount saved. While proponents may regard this as a virtue, it potentially would exacerbate the adverse distributional effects that Piketty attributes to  $r > g$ . Again, one may want to

<sup>216</sup> Staff of S. Comm. on Homeland Sec. & Governmental Affairs, Permanent Subcomm. on Investigations, 113th Cong., *Abuse of Structured Financial Products: Misusing Basket Options to Avoid Taxes and Leverage Limits 51-71* (2014), available at <http://www.gpo.gov/fdsys/pkg/CHRG-113shrg89882/content-detail.html>.

<sup>217</sup> This would in effect overturn the holding of *Woodsam Associates v. Commissioner*, 198 F.2d 357 (2d. Cir. 1952) (holding that an additional mortgage does not constitute a disposition event, thus no change in basis).

<sup>218</sup> This would entail amending § 1014.

<sup>219</sup> Edward D. Kleinbard, *We Are Better Than This: How Government Should Spend Our Money* 398-402 (2015).

<sup>220</sup> E.g., Bankman, note 127, at 1347; Michael S. Knoll, *An Accretion Corporate Income Tax*, 49 *Stan. L. Rev.* 1, 1 (1996).



tax saving if, as his work suggests, at the margin it has negative distributional externalities that outweigh any positive externalities.

Some net tax burden on saving could be retained, however, if a consumption tax were added to, rather than substituted for, an otherwise existing income tax. What is more, even if it were a pure substitute, a pure cash-flow consumption tax might actually increase taxes on some of the very wealthy, as compared to the existing realization-based income tax. For example, a consumption tax might increase Larry Ellison's taxes to the extent that he, as has been reported, finances lavish consumption through loans secured by his stock.<sup>221</sup> Obviously, however, as has been discussed at great length in the tax policy literature, adopting any sort of a progressive consumption tax, whether to supplement or wholly replace the existing income tax, would require enormous changes in U.S. law, and may be politically unlikely.

Under some of the most prominent progressive consumption tax models, imposing highly graduated marginal rates at the top might pose technical difficulties. For example, consider the X-tax, first proposed by David Bradford<sup>222</sup> and more recently advocated by Robert Carroll and Alan Viard.<sup>223</sup> The X-tax is essentially a single-rate consumption tax that resembles a value-added tax (VAT), collected from businesses, modified to allow a business deduction for wages that is offset by taxing wage earners at progressive rates. The X-tax works best technically if the top wage tax rate equals that of the VAT-style consumption tax that is collected from businesses, as this makes wage payments to owner-employees tax-neutral.<sup>224</sup> One thus could not conveniently tax high-wage employees at more than the general business-level consumption tax rate, unless one was prepared to impute higher wages to owner-employees—perhaps not a wholly impossible task, but certainly a difficult one that would undermine the promised simplification from replacing the existing income tax with an X-tax.

A second well-known progressive consumption tax model, commonly known as the cash-flow or consumed income tax, involves taxing individuals under something that looks like the existing income tax, except that all savings are deducted, while all borrowing and dis-

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<sup>221</sup> See, e.g., Bankman & Weisbach, note 29, at 1436-37 (noting that a consumption tax is incurred when there is consumption, regardless of where the money comes from). Note that this is an example of what Ed McCaffery calls the "buy/borrow/die" approach to tax planning. Ed J. McCaffery, Zuck Never has to Pay Taxes Again, CNN (Apr. 9, 2013, 7:50 AM), <http://www.cnn.com/2013/04/09/opinion/mccaffery-zuckerberg-taxes/>.

<sup>222</sup> David F. Bradford, What Are Consumption Taxes and Who Pays Them?, 39 Tax Notes 383, 384-90 (Apr. 18, 1988).

<sup>223</sup> Robert Carroll & Alan D. Viard, Progressive Consumption Tax: The X Tax Revisited 20-40, 180 (2012).

<sup>224</sup> Bradford, note 222, at 384-87.

saving is taxed.<sup>225</sup> Here the technical problem that highly progressive rates might pose is somewhat different. Suppose one believed that, as between two individuals who consumed the same average annual amounts, it was undesirable to tax one more than the other, over the long term, by reason of her bunching high consumption amounts into particular years. (For example, she might take an extremely expensive vacation once every ten years, while the other individual took a more modest vacation each year.) With steeply progressive rates under an annual system, those who bunched their consumption might pay a lot more, arguably unduly, unless there was a multi-year averaging mechanism.<sup>226</sup>

A third progressive consumption tax model might face neither of these technical difficulties in imposing highly graduated rates. As recently advocated by the Mirrlees Review, a prominent tax reform analysis issued by the Institute for Fiscal Studies,<sup>227</sup> one could retain the basic timing structure of the existing income tax, but allow regular annual deductions for the normal risk-free rate of return, which the Review suggests basing on government bond yields.<sup>228</sup> There might, however, be disagreement regarding how this rate of tax-free return should be set.

## 7. *Wealth tax*

As discussed previously,<sup>229</sup> there is a strong possibility that a wealth tax would be held unconstitutional. To be sure, not all commentators agree with this position. If a national U.S. wealth tax were adopted and upheld, it clearly would reach those at the very top of the pyramid (for example, Ellison, Gates, and Buffett) whose wealth is largely held in the form of publicly traded securities.

For other types of wealth, there would be problems and complaints regarding valuation and liquidity. These problems are not insoluble, and may at times be exaggerated. The federal government currently

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<sup>225</sup> See Treasury Dep't, Blueprints for Basic Tax Reform 119-30 (1977); Bradford, note 222, at 384-90.

<sup>226</sup> Under the Blueprints plan, taxpayers could effectively income-average by shifting funds between prepaid and postpaid accounts. This, however, would require "a high degree of sophistication by taxpayers." David A. Weisbach, Implementing Income and Consumption Taxes, in *Institutional Foundations of Public Finance* 59, 65 (Alan J. Auerbach & Daniel N. Shaviro eds., 2008).

<sup>227</sup> See generally James Mirrlees, Stuart Adam, Timothy Besley, Richard Blundell, Stephen Bond, Robert Chote, Malcolm Gammie, Paul Johnson, Gareth Myles & James Poterba, *Tax By Design: The Mirrlees Review* (2011).

<sup>228</sup> *Id.* at 488. For a fuller discussion of this proposal, see generally Alan J. Auerbach, *The Mirrlees Review: A U.S. Perspective*, 65 *Nat'l Tax J.* 685 (2012).

<sup>229</sup> See Section IV.B.

has a one-time wealth tax—the estate tax, applying at death<sup>230</sup>—and property taxes have always been a significant source of revenue for states. Yet liquidity and valuation concerns, among other issues, have led to significant exemptions in the estate tax, and to aggressive tax planning, such as a set of techniques based on the use of family partnerships. These concerns have also contributed to taxpayer “revolts” at the state level, and have contributed to the political unpopularity of the estate tax.<sup>231</sup>

Finally, while a wealth tax would get at year-end wealth held in the form of financial or other property, it would not get at income earned and spent the same year on personal consumption. In addition, it would apply to tangible wealth that does not yet produce income or consumption, but not to human capital. Thus, suppose we are comparing two wealthy individuals who are the same age. The first has “only” \$10 million in the bank, but is a high-salaried corporate executive, whose expected remaining career earnings have a present value of \$90 million. The second is an idle rentier with no work plans or prospects, but \$100 million in the bank.

One could argue that these two individuals are equally well-off. For example, each can afford the same level of lifetime consumption and then leave the same bequest. It is true that the corporate executive, unlike the rentier, has to work, but he may actually enjoy this and not regard it as a detriment. It is also possible that the executive would have greater political influence, and be more able to direct lucrative economic opportunities to his children. Nonetheless, a wealth tax would treat them disparately, bearing more heavily on the rentier, given that it cannot, as a practical matter, reach human capital even if one would like it to do so.<sup>232</sup>

### 8. *Estate or Inheritance Tax*

If one is concerned about the dynastic transmission of wealth, leading to the undesirable creation of a society dominated by rentiers, it would seem natural to respond by extending the reach, and greatly tightening the enforceability of, existing estate and gift taxes. One also might, as suggested by Lily Batchelder, convert the estate tax into an inheritance tax, in which the tax depends on the amount one inher-

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<sup>230</sup> IRC § 2001(a).

<sup>231</sup> E.g., Karen C. Burke & Grayson M.P. McCouch, *Turning Slogans into Tax Policy*, 27 *Va. Tax Rev.* 747, 749-62 (2008).

<sup>232</sup> A similar point applies under income taxation. As Louis Kaplow has noted, actual income taxes generally have cash-flow, rather than Haig-Simons or value-based, treatment of expected earnings. Louis Kaplow, *Human Capital Under an Ideal Income Tax*, 80 *Va. L. Rev.* 1477, 1482-90 (1994). But an income tax includes current year labor income even if consumed, whereas a wealth tax does not.

ited, rather than on the size of the overall estate.<sup>233</sup> The rationale for making this shift, other than that it might improve the political optics of the tax (by focusing on “unmerited” receipt by heirs, rather than on the donor’s aim of aiding loved ones) is that it more directly addresses the underlying concern. Even a large estate, if widely dispersed among beneficiaries, may not create the same concerns about the entrenchment of a super-rich rentier class as one that goes to only one or a few beneficiaries.

Obviously, existing estate taxes’ political unpopularity, along with their susceptibility to tax planning and their frequent need to rely on valuation of nonpublicly traded property, should give one pause regarding their practical potential as a tool to combat rentiership. The fact that, in comparison to an annual wealth tax, they apply only irregularly (that is, at death), and require payments that are both lumpy and lagged relative to earlier wealth accumulation, may also count against them. Yet Piketty’s focus on the transmission of wealth to an entrenched rentier class makes it surprising that he does not place more emphasis on this instrument (which plainly is constitutional in the United States).<sup>234</sup>

#### *F. Different Problems, Different Taxes*

We have thus far described high-end wealth concentration as a single, monolithic condition that may yield negative externalities of some kind. In reality, of course, it raises a constellation of related issues. These may include, for example, restricted economic opportunity, unequal political influence, increased social conflict, and hedonic loss from relative economic deprivation. In order to decide on the proper mix of taxes, it is necessary to evaluate not only the significance of these problems, but how they relate to different forms of wealth-holding.

For example, a CEO such as Ellison has power over economic resources that a hedge fund manager, such as James Simons, does not have. If this, and perhaps the increased political influence that comes with it, is seen as undesirable, then taxes directed at corporate sector managers (or at their companies) might be a priority. A concern about economic power might also suggest addressing the use of private foundations, which wealthy charitable donors can use to claim current deductions while retaining considerable discretion over the ultimate use of the funds.

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<sup>233</sup> Lily Batchelder, Estate Tax Reform: Issues and Options, 122 Tax Notes 633, 644-46 (Feb. 2, 2009).

<sup>234</sup> See *New York Trust Co. v. Eisner*, 256 U.S. 345 (1921) (affirming constitutionality of the estate tax).

In the realm of economic power, however, regulation might dominate taxation as a response. Moreover, as Piketty recognizes, regulation and government spending may dominate responding through the tax system insofar as the problem is unequal opportunity.<sup>235</sup> If the problem is declining marginal utility from consumption, and/or hedonic loss from relative consumption, then a key part of the solution might be a steeply graduated consumption tax. Of course, the benefits from any solution must be netted against its costs.

The analysis thus far has focused on people who are at the very top economically. It seems likely, however, that the same analysis would apply if we moved down a notch, and focused on the upper .01 or .1% of the distribution. A partner in a big law firm, a successful but not leading partner in a private equity or hedge fund, and a serial entrepreneur in Silicon Valley would all pose similar issues for redistributive tax policy.

We also might look at the concentration of human capital, not just as it manifests in high income and wealth, but also as it is formed in childhood and young adult years. Estate, gift, and inheritance taxes are the typical tax instruments used to address wealth transmission that one views as having adverse effects.<sup>236</sup> However, they would not, under any conventional design, reach the transmission of valuable human capital. Moreover, even if it were possible to indirectly tax such capital (perhaps by taxing high-end educational materials and institutions), it is difficult to imagine the welfarist basis for such a tax. Such a tax would reduce private wealth without directly increasing government wealth. This is in sharp contrast to a conventional estate or gift tax, where the first order effect is to transfer wealth from the private to the public sphere. (Of course, a tax on human capital transmission would have a host of other second-order effects, including those on wealth concentration, incentives, knowledge, productivity, and the like.) Here, as in many areas, the most promising government policy to do with wealth concentration would not be tax-based. Instead, one might imagine expenditure programs, concentrating perhaps on the apparent efficacy of early childhood preschool and parent education.<sup>237</sup> Overall, the efficacy of estate and gift taxes in addressing the transmission of high-end inequality may depend on the relative significance of the two distinct kinds of intergenerational capital transmission.

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<sup>235</sup> Piketty, note 1, at 474-79.

<sup>236</sup> See Batchelder, note 233, at 633-35.

<sup>237</sup> See James J. Heckman, Policies to Foster Human Capital, 54 Res. Econ. 3, 12-16 (2000).

Schematic representations of human capital wealth, and the tax treatment best suited to redistribution of that wealth, are presented in Table 1. That table, as complicated as it is, provides information only on the types of taxes that might most closely be aligned and focused with various forms of human capital. The table does not address the welfarist considerations that might support taxation of a particular form of wealth, or the drawbacks to taxation.

TABLE 1

| <i>Type of Human capital</i>          | <i>Representative Figure</i> | <i>Potential Taxes</i>  |
|---------------------------------------|------------------------------|---|
| Entrepreneurial; managerial; skilled  | Larry Ellison                | Surtax on financial capital<br>Surtax on corporate income<br>Estate and gift tax<br>Consumption tax |
| Financial sector; managerial; skilled | James Simons                 | Surtax on labor income<br>Reform of financial sector tax<br>Estate and gift tax<br>Consumption tax  |
| Managerial                            | CEO                          | Surtax on labor income<br>Consumption tax   |
| Highly skilled                        | Law firm partner             | Surtax on labor income<br>Consumption tax   |
| Athletic; entertainment               | Floyd Mayweather             | Surtax on labor income<br>Consumption tax   |

Now, suppose we add a second type of consideration: that of why we object to high-end inequality in a given case, reflecting particular negative externalities that might be deemed associated with it. Some of the possibilities are summarized in Table 2.<sup>238</sup>

TABLE 2

| <i>Type of Negative Externality</i>    | <i>Representative Figure</i>             | <i>Potential Policy Response</i>  |
|--|--|---|
| Restricted economic/social opportunity | Rejected applicant to elite universities | Spending on pre-K, equalizing later educational opportunities                             |
| Unequal political influence            | Koch Brothers                            | Campaign finance reform (after reversal of current Supreme Court doctrine) <sup>239</sup> |

<sup>238</sup> We are grateful to Ruth Mason for suggesting this to us.

<sup>239</sup> See *Citizens United v. FEC*, 558 U.S. 310 (2010).

|  |  |  |
|--|--|--|
| Increased social conflict                    | “99%” movement                             | Taxation, possibly also regulatory change to intellectual property rules, corporate governance, the financial sector |
| Hedonic loss from lower relative consumption | People in economy class on airline flights | Taxation plus regulatory changes   |
| Greater legal tax avoidance opportunities    | Larry Ellison, James Simons                | Taxation   |

In sum, it is difficult to translate Piketty’s analysis or prescriptions into a world in which human capital plays a primary role. In his analysis of nineteenth century Europe, capital appears as a somewhat unitary concept, and power and capital are closely linked. In contrast, human capital is heterogeneous, and it is plausible that the negative externalities associated with high-end wealth concentration might vary with the type of human capital. Various tax responses differ in both the people and the problems that they address, and also in their efficiency costs.

### *G. Global Versus National Perspective*

As noted above, the growing concentration of wealth is often attributed to globalization, which effectively increases the demand, and therefore the pay, for highly-skilled labor.<sup>240</sup> It also allows capital within highly developed countries, such as the United States, to substitute low-paid unskilled foreign labor for domestic unskilled labor. Wages otherwise received by U.S. citizens may therefore go to citizens of poorer countries. While these outflows may increase inequality in the United States, they may well reduce it as measured on a global basis.<sup>241</sup> The cross-border flows may either increase or reduce inequality within a given developing country.

Piketty has chosen the nation-state as his unit against which to measure inequality, and has focused on a few OECD states. This is a sensible choice, as he can hardly be expected to look at inequality absolutely everywhere at the same time. Moreover, the nation-state may be the main unit, not only at which tax decisions are made, but at

<sup>240</sup> See note 207 and accompanying text.

<sup>241</sup> For development of this view, see Tyler Cowen, *Income Inequality Is Not Rising Globally. It’s Falling*, *Upshot*, N.Y. Times (July 19, 2014), <http://www.nytimes.com/2014/07/20/upshot/income-inequality-is-not-rising-globally-its-falling-.html?abt=0002&abg=1> (citing Christoph Lakner & Branko Milanovic, *Global Income Distribution: From the Fall of the Berlin Wall to the Great Recession*, *VOX* (May 27, 2014), <http://www.voxeu.org/article/global-income-distribution-1988>).

which democracy succeeds or fails, and comparative well-being is most keenly felt. Yet it is hardly the only possible unit of relevant choice.

From a global welfarist perspective, the absolute income in developing countries would matter, as would the distribution of that income within each country.<sup>242</sup> Indeed, even from a national perspective, using nationwide measures of inequality is at best a simplifying abstraction. The distribution of wealth within a region or sub-region will also be relevant. (Complaints about urban “gentrification” reflect the sentiment that intra-region inequality can also be welfare-reducing). The question in all cases is how each individual is affected not only by her own wealth, but by that of others. There is no reason to think that individuals are equally sensitive to inequality at any distance from their homes, so long as it is within their nation-state, and at the same time wholly insensitive to inequality beyond the nation-state’s borders.

## VI. CONCLUSION

In *Capital in the Twenty-First Century*, Thomas Piketty exhaustively documents the growing concentration of wealth, and more briefly suggests a global wealth tax as a remedy. We examine this prescription from a welfarist tax policy perspective. We show that designing a workable, attractive tax that reduces capital concentration is difficult, even in the stylized rentier society that Piketty describes. A tax on capital income is perhaps the most obvious solution. However, there are related normative and efficiency-based drawbacks to such a tax. These include interfering with life-cycle saving and with the expression of heterogeneous tastes in inter-temporal consumption. In addition, some portion of the tax might be offset through taxpayer portfolio adjustments. Piketty’s proposed wealth tax imposes burdens that could not be wholly offset in this manner. However, it is subject to the other drawbacks noted above, and, in the United States, would face constitutional challenge.

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<sup>242</sup> The effect on inequality in the developing country would depend on whether the payments, or the wealth created by the payments, go to the wealthy or the poor in that country. Scholars who have looked at the larger issue—the trend in inequality in developing, labor-exporting countries, have come to opposite conclusions. For discussion of inequality in China, for example, compare Cowen, note 241 (noting that inequality is not rising from a global perspective), and Christoph Lakner & Branko Milanovic, *Global Income Distribution: From the Fall of the Berlin Wall to the Great Recession 2* (World Bank, Pol’y Res. Working Paper No. 6917, 2013), available at [http://www-wds.worldbank.org/external/default/WDSContentServer/IW3P/IB/2013/12/11/000158349\\_20131211100152/Rendered/PDF/WPS6719.pdf](http://www-wds.worldbank.org/external/default/WDSContentServer/IW3P/IB/2013/12/11/000158349_20131211100152/Rendered/PDF/WPS6719.pdf) (analyzing inequality from a global perspective), with John Knight, *Inequality in China: An Overview*, 29 *World Bank Res. Observer* 1, 1 (2014), available at <http://wbro.oxfordjournals.org/content/29/1/1> (analyzing inequality only in China).



In the United States, the primary role that human capital has played in the rise of high-end inequality further complicates tax design. We briefly review the taxes that might be used to address wealth derived in various ways. We conclude, however, that the optimal tax mix would depend on further information regarding the particular problems posed by wealth concentration, the efficiency costs of each tax, and the available regulatory and government spending-based alternatives. From a tax policy perspective, *Capital in the Twenty First Century's* chief contribution lies less in the solution it proposes than in its extraordinary contributions to awareness of high-end inequality issues, and to the advancement of informed debate.