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The Case for Taxing (All of) Labor Income, Consumption, Capital Income, and Wealth

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The Case for Taxing (All of) Labor Income, Consumption, Capital Income, and Wealth

DAVID GAMAGE*

For these reasons, we believe that consideration of evasion, avoidance, and administration is essential to the positive and normative analysis of taxation. . . . Extreme assumptions about the feasibility of tax instruments are analytically convenient, but incorrect. . . . The conceptually pure tax base—be it the flow of income, wealth, sales revenue, or something else—cannot be perfectly measured, and the tax authority is constrained to rely on some correlate of the concept.

Joel Slemrod and Shlomo Yitzhaki1

I. INTRODUCTION

There is a tension in the economics-oriented literature on taxation. On the one hand, the theoretical literature largely focuses on how taxes can be designed so as to minimize distortions related to labor supply and savings behaviors.2 Yet, on the other hand, the empirical

* Assistant Professor, University of California, Berkeley, School of Law. I have received invaluable help from too many individuals to name since I began working on this project. I especially owe thanks to Alan Auerbach, Joseph Bankman, Eric Biber, Tom Brennan, Neil Buchanan, John Brooks, Charlotte Crane, Lilian Faulhaber, Brian Galle, Mark Gergen, Jacob Goldin, Daniel Halperin, David Hasen, Andrew Hayashi, David Herzog, David Kamin, Mitchell Kane, Louis Kaplow, Sarah Lawsky, Leandra Lederman, Katerina Linos, Jack McNulty, Susan Morse, Shu-yi Oei, Jason Oh, Leigh Osofsky, Miranda Perry-Fleischer, Shruti Rana, Alex Raskolnikov, Adam Rosenzweig, Andrea Roth, Emmanuel Saez, Emily Satterthwaite, Deborah Schenk, Darien Shanske, Daniel Shaviro, Steven Shay, Joel Slemrod, Kirk Stark, Karen Tani, Ethan Yale, Lawrence Zelenak, and the editorial staff of the Tax Law Review.

1 Joel Slemrod & Shlomo Yitzhaki, Tax Avoidance, Evasion, and Administration, in 3 Handbook of Public Economics 1423, 1427, 1454-57 (Alan J. Auerbach & Martin Feldstein eds., 2002).

2 Of course, there is also a sizable economics-oriented literature on tax evasion, avoidance, administration, and related considerations. For a review of some of that literature, see id. But the economics-oriented literature studying which major forms of taxation governments should employ has primarily emphasized labor-to-leisure and saving-to-spending distortions (along with related distortions involving certain other aspects of investment.
literature does not support the claim that either labor-to-leisure or saving-to-spending distortions are of primary importance for many real world tax policy questions. Moreover, integrating the empirical economics literature with the legal literature on tax planning suggests that, for many important tax policy problems, the primary efficiency costs of taxation may well arise from a variety of more idiosyncratic and context-dependent distortions and from administrative and compliance costs, rather than from labor-to-leisure or saving-to-spending responses.

At the very least, then, there is strong reason to infer that taxation involves important efficiency costs other than labor-to-leisure and saving-to-spending distortions. This empirical inference is in some tension with the theoretical literature's emphasis on these two forms of distortions.

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3 I support and explain this in Subsections II.B.1 and III.B.1; see Jane G. Gravelle & Donald J. Marples, Cong. Research Service, R42111, Tax Rates and Economic Growth, at Summary (Jan. 2, 2014), available at http://fas.org/sgp/crs/misc/R42111.pdf ("A review of statistical evidence suggests that both labor supply and savings and investment are relatively insensitive to tax rates."); Reuven S. Avi-Yonah, Why Tax the Rich? Efficiency, Equity, and Progressive Taxation, 111 Yale L.J. 1391, 1398 (2002) (reviewing Joel B. Slemrod, Does Atlas Shrug? The Economic Consequences of Taxing the Rich (2000)) ("Most of the evidence for behavioral responses in the book relates to tax avoidance strategies (e.g., charitable giving techniques, shifting income from corporations to individuals, and the timing of receipts), rather than to real activities (labor and saving decisions)."; Costas Meghir & David Phillips, Labour Supply and Taxes, in Dimensions of Tax Design: The Mirrlees Review 202, 252 (James Mirrlees, Stuart Adam, Timothy Besley, Richard Blundell, Stephen Bond, Robert Chote, Malcolm Gammie, Paul Johnson, Gareth Mylcs & James Poterba eds., 2010) [hereinafter Mirrlees Review] ("For highly educated individuals the sensitivity of both hours of work and participation to work incentives are almost zero."); Saez et al., note 2, at 4, 42 (concluding that "[a]lthough evidence of a substantial compensated labor supply elasticity has been hard to find, evidence that taxpayers respond to tax system changes more generally has decidedly not been hard to find...", and also concluding that "while there is compelling U.S. evidence of strong behavioral responses to taxation at the upper end of the distribution" that these responses consist entirely of "timing and avoidance" transactions, and that "[i]n contrast, there is no compelling evidence to date of real economic responses to tax rates. . . .")

4 See Section II.B; Part III.
How should tax legal scholarship react to this tension? What lessons should policymakers draw from the theoretical literature in light of this tension? More generally, accounting for this tension, how might tax systems be reformed so as to raise revenues or “promote distributional equity”? with lower efficiency costs?

As a starting point for pondering these questions, it should be understood that taxation is largely the art of measurement. Essentially all forms of taxation are built around measuring some activities or characteristics of taxpayers and then setting tax liabilities based on these measurements. Furthermore, when it comes to real world tax policy, all plausible forms of tax measurement are imperfect—and imperfect in numerous different ways. A major reason for this is that taxpayers respond to taxation through a variety of techniques for altering their activities and adjusting or concealing their characteristics so as to game measurements in order to pay less tax. In other words, because taxpayers actively seek to pay less tax, anything measured by a tax system will likely be altered in response to the specifics of the tax measurement.

This Article’s thesis is in a sense rather simple: Because all plausible forms of tax measurement are imperfect, it often will be better for governments to utilize multiple forms of tax measurement. Put metaphorically: If every available basket is full of holes, then we might want to collect our eggs with more than one layer of basket.

Yet there is a caveat to this maxim. There perhaps would not be any advantages to using multiple layers of baskets if all of the available baskets had the exact same holes. To continue the metaphor, imagine that one basket is placed inside another. If all of the holes in the first basket were perfectly replicated by the second basket, then there might not be any advantages to nesting the baskets. If the holes in the two baskets perfectly overlap, then any egg falling through a hole in the inside basket would also fall through a hole in the outside basket. Only to the extent that the holes in the baskets do not perfectly over-

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5 As discussed in David Gamage, How Should Governments Promote Distributive Justice?: A Framework for Analyzing the Optimal Choice of Tax Instruments, 68 Tax L. Rev. 1 (2014), I purposefully use the phrase “promote distributional equity” (and other, similar terms, all of which I use synonymously), because I believe that the term “redistribution” has misleading connotations as the term is commonly used in the academic literature. By using terms like “promoting distributional equity,” I mean to refer to government attempts to advance goals related to distributive justice, in accordance with the government’s social welfare function.

6 I thank Louis Kaplow and Brian Galle for helping me to devise this metaphor. It may be worth noting that Louis Kaplow’s preferred version of this metaphor is based on buckets and water, rather than baskets and eggs, as the metaphor was originally inspired by Okun’s leaky bucket. See Joel Slemrod, Fixing the Leak in Okun’s Bucket: Optimal Tax Progressivity When Avoidance Can Be Controlled, 55 J. Pub. Econ. 41, 41-42 (1994).
lap, then, are there likely to be advantages to nesting multiple layers of baskets.

Correspondingly, for purposes of tax-system design, when deciding whether to make use of multiple tax measurements, it is crucial to assess whether the imperfections in the available measurements overlap or are distinct. To the extent that different forms of taxation have nonoverlapping imperfections, there may be powerful advantages to utilizing multiple forms of taxation. The reason for this follows from economic theorems that I previously referred to as the "tax-smoothing principle." 7 Under assumptions that (in prior work) I argued reasonably track real world tax environments, 8 and as I elaborate further below, the tax-smoothing principle implies that utilizing multiple forms of taxation generally should reduce overall distortionary costs to the extent that the different forms of taxation have nonoverlapping imperfections.

Building on that analysis from my prior work, this Article evaluates some standard proposals for taxing labor income, consumption, capital income, and wealth. This Article argues, with respect to plausible real-world implementations of these forms of taxation, that these forms of taxation tend to have substantially nonoverlapping imperfections. Accordingly, this Article concludes that overall distortionary costs can be reduced by utilizing some approach for taxing all of labor income, consumption, capital income, and wealth.

This Article's conclusions thus contrast with an influential set of arguments in the law-and-economics literature for why governments should primarily rely on only either a labor income tax or a progressive consumption tax. These arguments are sometimes called "double-distortion" arguments, and I follow that terminology in this Article. As Daniel Shaviro has explained:

[T]he "double distortion" literature in legal scholarship . . . draws the conclusion that distributional objectives should be pursued entirely through a progressive consumption tax [or a labor income tax]. . . . This is a legal literature based on certain economics literature. Economists may be bemused by how this legal literature treats this economics literature. 9

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7 Gamage, note 5, at 41.
8 Id. at 49-72.
Double-distortion arguments are based on two central sets of assumptions: first, that labor-to-leisure distortions are the sole imperfection in a labor income tax or a progressive consumption tax; and, second, that this imperfection is perfectly replicated by supplementary forms of taxation.

Most of the prior literature on the limitations of double-distortion arguments has focused on the implications of relaxing this second set of assumptions—that the labor-to-leisure distortions induced by a labor income tax or a progressive consumption tax are perfectly replicated by supplementary forms of taxation.10 Most notably, the economist Emmanuel Saez has argued that relaxing this set of assumptions supports positively taxing capital income,11 and the law-and-economics scholar Chris Sanchirico has argued that relaxing this set of assumptions supports utilizing a variety of supplementary forms of tax measurement (although Sanchirico's work does not explain which supplemental measurements should be positively taxed and which should be subsidized).12

Yet many other scholars remain unconvinced by these critiques of double-distortion arguments.13 Although the advocates of double-distortion arguments typically explain this set of assumptions as consisting of two primary assumptions: (1) that taxpayers are homogeneous except in their ability to earn labor income, and (2) that taxpayers' preferences are weakly separable between labor and consumption. For discussion of the literature on the implications of relaxing these assumptions, see, for example, Gamage, note 5, at 52-56; David Weisbach, Distributionally Weighted Cost-Benefit Analysis: Welfare Economics Meets Organizational Design, J. Legal Analysis (forthcoming 2015) (manuscript at 11-15), available at http://jla.oxfordjournals.org/content/early/2014/12/24/jla.lau009.full.pdf+html.

10 This set of assumptions is typically explained as consisting of two primary assumptions: (1) that taxpayers are homogeneous except in their ability to earn labor income, and (2) that taxpayers' preferences are weakly separable between labor and consumption. For discussion of the literature on the implications of relaxing these assumptions, see, for example, Gamage, note 5, at 52-56; David Weisbach, Distributionally Weighted Cost-Benefit Analysis: Welfare Economics Meets Organizational Design, J. Legal Analysis (forthcoming 2015) (manuscript at 11-15), available at http://jla.oxfordjournals.org/content/early/2014/12/24/jla.lau009.full.pdf+html.


12 Chris William Sanchirico, A Critical Look at the Economic Argument for Taxing Only Labor Income, 63 Tax L. Rev. 867, 940-54 (2010); Chris William Sanchirico, Tax Eclecticism, 64 Tax L. Rev. 149, 156-59 (2011) [hereinafter Tax Eclecticism]. In contrast to the implications of this Article's analysis, both Sanchirico and the advocates of double-distortion arguments agree that relaxing this second set of assumptions does not imply that governments should positively tax capital income or otherwise levy supplemental forms of taxation at positive rates. Instead, Sanchirico and the advocates of double-distortion arguments agree that relaxing this second set of assumptions implies only that governments should potentially either positively tax or subsidize capital income and other supplements to a labor income tax or a progressive consumption tax. In light of this, I previously summarized the debate between Sanchirico and the advocates of double-distortion arguments as largely being about which positions should bear the burden of proof when governments must cope with limited information. Gamage, note 5, at 54-56.

13 For instance, Joseph Bankman and David Weisbach conclude in response to Saez's arguments that "the arguments are at this point sufficiently theoretical and tenuous that we cannot say they currently support [taxing capital income]." Joseph Bankman & David A. Weisbach, The Superiority of an Ideal Consumption Tax over an Ideal Income Tax, 58 Stan. L. Rev. 1413, 1455 (2006) [hereinafter Ideal Consumption Tax]. Bankman and Weisbach respond even more harshly to Sanchirico's arguments, saying "[w]e do not believe Sanchirico's article adds much to the literature and in many ways obscured well-established ideas." Joseph Bankman & David A. Weisbach, A Critical Look at a Critical Look—
tortion arguments agree that relaxing this second set of assumptions makes it theoretically possible that governments might want to utilize supplemental forms of tax measurement, these scholars conclude that policymakers in most cases will lack the information needed to know how to do so.\textsuperscript{14} As David Weisbach argues, "[t]he [double-distortion] model contains strong assumptions. The key claim of the benchmark model is not that the assumptions are true. Instead, the model helps us understand the implications of a more general model where the assumptions are relaxed."\textsuperscript{15} He continues, "[e]ven when we relax the assumption [that the labor-to-leisure distortions induced by a labor income tax are perfectly replicated by supplementary forms of taxation], however, luxury taxes are not consistent with optimal distributive policies. . . .\textsuperscript{16}

This Article explores the implications of relaxing the first set of assumptions upon which double-distortion arguments are based—that labor-to-leisure distortions are the sole imperfection in a labor income tax or a progressive consumption tax. To do so, this Article treats the second set of assumptions (that these labor-to-leisure distortions are perfectly replicated by supplementary forms of taxation) as being true, but only for the purposes of developing this Article’s analysis. Put another way, my arguments are based on analyzing the implications of efficiency costs other than labor-to-leisure distortions. Thus, to the extent that policymakers can obtain useful information about the ways in which the labor-to-leisure distortions induced by a labor income tax or a progressive consumption tax are not perfectly replicated by supplementary forms of taxation, my policy prescriptions should be adjusted to account for that information.\textsuperscript{17}

\begin{footnotesize}
\begin{itemize}
\item[\textsuperscript{14}] Bankman \& Weisbach, Critical Look, note 13, at 550 ("We agree that, in theory, some mix of positive or negative income, consumption and other taxes is apt to dominate a pure labor tax. No one has yet specified just what that mix might be, however. . . .").
\item[\textsuperscript{15}] Weisbach, note 10 (manuscript at 8).
\item[\textsuperscript{16}] Id. (manuscript at 13); id. (manuscript at 15) ("The resulting taxes and subsidies, however, are not the conventional pro-poor redistributive policies we might have thought optimal without careful consideration. Instead, they are set based on subtle interactions with the income tax. Relaxing the assumptions in the benchmark model does not restore standard distributive weights.").
\item[\textsuperscript{17}] To the extent that the empirical literature suggests that labor-to-leisure distortions might not be especially important with respect to many real world tax policy questions, however, these adjustments might end up being relatively minor, even to the extent that
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Thus, looking beyond labor-to-leisure distortions, what can we say about the other forms of distortionary responses that might be induced by a labor income tax or a progressive consumption tax? Some of the prior literature discussing double-distortion arguments explicitly makes clear that the literature’s conclusions only apply when comparing an “ideal” labor income or consumption tax to other potential supplementary forms of taxation—with an “ideal” labor income or consumption tax then being defined as one that has no imperfections other than inducing labor-to-leisure distortions. Most notably, tax law scholars Bankman and Weisbach argue that an “ideal” tax falling on only labor income or consumption is superior to an “ideal” tax that also falls on capital income. Bankman and Weisbach justify their focus on these “ideal” forms of taxation by claiming that real-world taxes on capital income involve far greater imperfections beyond labor-to-leisure distortions than do real-world taxes on labor income or consumption. Bankman and Weisbach thus claim that they are evaluating “the best possible case for [taxing capital income]” and that “[i]f a consumption tax is superior . . . even ignoring the major implementation problems of [taxing capital income], it follows that a consumption tax will be even more desirable once those problems are taken into account.” These arguments by Bankman and Weisbach have been echoed by a number of other tax scholars.

Even accepting that real world capital income taxes probably do involve worse implementation problems than do real world labor income or consumption taxes, however, it is crucial to understand that imperfections in tax systems must be evaluated through marginal analysis. Accordingly, as I explained at length in an earlier Article, in light of the tax-smoothing principle, “that a tax instrument is superior for raising any fixed sum of revenues does not imply that the tax instrument is superior for raising marginal revenues.” Thus, contrary to Bankman and Weisbach’s conclusions, this Article argues that it is probably optimal for governments to positively tax capital income.
Moreover, much of the double-distortion literature does not even note (as Bankman and Weisbach's article does) that the literature is implicitly assuming that labor-to-leisure distortions are the sole imperfection in a labor income tax or a progressive consumption tax. 23 This is so even for much of the literature that seems to be aimed at influencing real world policy. 24 Implicitly, then, much of the double-distortion literature treats real-world labor income taxes and progressive consumption taxes as being equivalent to the theoretically "ideal" versions of these forms of taxation. In other words, despite there being numerous studies explaining that labor income taxes and progressive consumption taxes are subject to a diverse variety of major imperfections, 25 double-distortion scholarship often argues for policy prescriptions based on the implicit assumption that real-world implementations of these forms of taxation would be perfect except for inducing labor-to-leisure distortions.

Departing from this assumption, what can we say about the extent to which the imperfections in real world labor income taxes or progressive consumption taxes might or might not overlap with the imperfections in potential supplementary forms of taxation? Unfortunately, only a small portion of the prior literature examining the imperfections in these forms of taxation directly evaluates this question.

23 For instance, Weisbach's recent review of the double-distortion literature and its implications for cost-benefit analysis does not explain that his arguments are implicitly treating real world labor income taxes as being equivalent to the "ideal" versions. Weisbach, note 15, at 8-15; see also N. Gregory Mankiw, Mathew Weinzierl & Danny Yagan, Optimal Taxation in Theory and Practice, 23 J. Econ. Persp., Fall 2009, at 147, 171-72 (concluding that real world tax policy remains far from the policy recommendations that the authors argue are implied by the optimal tax theory literature, including the policy implications that the authors argue follow from double-distortion models based on the work of Atkinson and Stiglitz).

24 In addition to the scholarship cited in note 23, further examples include: Robert Carroll & Alan Viard, Progressive Consumption Taxation: The X Tax Revisited 179-80 (2012) (arguing for the adoption of a progressive consumption tax based on double-distortion reasoning); James R. Hines, Jr., Taxing Consumption and Other Sins, 21 J. Econ. Persp., Winter 2007, at 49, 66 ("Heavy American reliance on income rather than consumption taxation has not served the U.S. economy well. The inefficiency associated with taxing the return to capital means that the tax system reduces investment in the United State and distorts intertemporal consumption by Americans, meanwhile discouraging U.S. labor supply no less than would a consumption tax alternative."); Louis Kaplow & Steven Shavell, Why the Legal System Is Less Efficient Than the Income Tax in Redistributing Income, 23 J. Legal Stud. 667, 677 (1994) ("This argument... suggests that it is appropriate for economic analysis of legal rules to focus on efficiency and to ignore the distribution of income in offering normative judgments."); David Weisbach, Should Legal Rules Be Used to Redistribute Income?, 70 U. Chi. L. Rev. 439, 453 (2003) ("My conclusion is quite simple: Legal rules should not be used to redistribute income.").

25 For discussion, see Section II.B and Part III.
Of the prior literature that does directly evaluate this question, among the most notable are a handful of articles analyzing whether or not distortions related to certain types of purely illegal tax evasion might overlap when comparing income taxes to consumption taxes. These articles conflict on whether or not supplementing an income tax with consumption taxes might reduce these types of tax evasion. As the economists Joel Slemrod and Christian Gillitzer explain, "the precise results are model-dependent" and the models suggesting that supplementing an income tax with consumption taxes might not reduce tax evasion depend on the modeling assumption "that the act of tax evasion is tightly tied to the production of a distinct good." This assumption probably does hold for a substantial portion of the tax evasion that is based on not reporting cash transactions, but this assumption probably does not hold for many other forms of tax evasion.

In another highly relevant article, the economists Roger Gordon and Soren Nielsen compare a form of an income tax to a form of a consumption tax so as to evaluate distortions related to cross-border shopping and to shifting taxable income abroad. Gordon and Nielsen reason that these distortions are substantially nonoverlapping between these two forms of taxation. Therefore, applying a variation of the tax-smoothing principle, Gordon and Nielsen conclude that taxing both labor income and consumption should reduce the overall distortionary costs from cross-border shopping and from shifting taxable in-

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27 Compare Kesselman, note 26, at 131, with Boadway et al., note 26, at 72-73.


29 See id. ("This need not be true, as is indicated by the simultaneous presence of formal and informal housepainters, repair people, and so on. Still there is certainly evidence that evasion is concentrated in particular sectors... because of the small scale of production that can aid concealment and the lesser need for receipts... "). Examples of the sorts of tax evasion for which this assumption probably does not hold in many cases include when taxpayers claim deductions based on fraudulently implausible appraisal estimates and when taxpayers report a fraudulent basis on selling capital assets, as these forms of tax evasion usually are not directly tied to any particular income earning or other production processes. See, e.g., Joseph M. Dodge & Jay A. Soled, Debunking the Basis Myth Under the Income Tax, 81 Ind. L.J. 539, 540 (2006) ("[T]ax basis is commonly overstated."); Mark P. Gergen, Uncertainty and Tax Enforcement: A Case for Moderate Fault-Based Penalties, 64 Tax L. Rev. 453, 472 (2011) ("[T]here is a great deal of anecdotal evidence that taxpayers are aggressive in valuing uncertain tax items and in exploiting legal uncertainty.").

come abroad, as compared to taxing only one of either labor income or consumption.\textsuperscript{31}

This Article’s approach is very much in the spirit of Gordon and Nielsen’s work. However, this Article evaluates the taxation of capital income and wealth, in addition to the taxation of labor income and consumption. Also, this Article seeks to generalize the analysis by considering a diverse variety of distortionary responses, many of which are quite idiosyncratic and context-dependent, rather than limiting the analysis to only a handful of distortionary responses that are more general in nature.

The literature on tax planning suggests that many important real world distortionary responses are highly idiosyncratic and contingent on the details of how tax systems are implemented.\textsuperscript{32} For example, prior to the 1986 Tax Reform Act, the U.S. income tax was plagued by many variations of distortionary responses where taxpayers claimed inflated deductions to offset their labor income by exploiting the rules governing depreciable assets. According to Calvin Johnson, in their heyday, these forms of distortionary responses

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\ldots \text{caused lots of economic damage by channeling resources into junky investments: jojoba beans in Costa Rica, windmills in the Mojave desert, garden apartments outside of Dallas put up and then torn town, see-through office buildings put up just for the tax shelter. We gave up billions of dollars of tax revenue to buy junk.}\textsuperscript{33}
\]

That the 1986 Tax Reform Act largely shut down these types of responses demonstrates their contingent nature.

Today, among the most important distortionary responses through which the highest-income U.S. taxpayers reduce their income tax liabilities are those that involve recharacterizing what might be thought of as labor income so that it is treated as a capital asset, and then exploiting the realization rules so that these “capital assets” can be used to fund consumption while enabling the taxpayers to circumvent substantial portions of both the ordinary income and capital gains

\textsuperscript{31} Id. at 189-90.

\textsuperscript{32} See Joseph Bankman & Michael L. Schier, Tax Planning Under the Flat Tax, in Taxing Capital Income, note 21, at 245, 247 (“The biggest dangers \ldots are the flaws not yet identified, or even existing until the specific language is in place.”); see also Alex Raskolnikov, Taxation of Financial Products: Options for Fundamental Reform, 133 Tax Notes 1549 (Dec. 19, 2011) (discussing tax-gaming responses related to the taxation of financial products); David M. Schizer, Frictions As a Constraint on Tax Planning, 101 Colum. L. Rev. 1312 (2001) (discussing limitations on tax-gaming responses); Gregg D. Polsky, A Compendium of Private Equity Tax Games, 146 Tax Notes 615 (Feb. 2, 2015).

\textsuperscript{33} Calvin Johnson, What’s a Tax Shelter?, 68 Tax Notes 879, 880 (Aug. 14, 1995).
There are numerous variations on these sorts of distortionary responses, and they can often be very complicated—especially when the responses take advantage of partnership tax rules or the rules governing the taxation of financial products. Underscoring the real world importance of these sorts of responses, tax legal scholar Edward McCaffery has labeled the use of these responses as "Tax Planning 101," and tax accounting scholar Douglas Shackelford has concluded that through use of these sorts of responses that "the capitalist can transform the income tax into a somewhat voluntary assessment."

I use the term "tax-gaming responses" to refer to the subcategory of distortionary responses that are more idiosyncratic and contingent on the details of how tax systems are implemented, such as the examples noted above. One reason why I use the term "tax gaming" is to skirt the question of whether these responses are legal (corresponding with the term "tax avoidance") or illegal (corresponding with the term "tax evasion"), as many of these responses are of unclear or borderline legality. Precisely delineating what counts as a "tax-gaming response" is not essential for this Article's analysis, so long as it is understood that real world tax systems tend to be subject to numerous idiosyncratic tax-gaming responses that are based on exploiting the details of how these tax systems are implemented.

It is challenging to analyze the implications of tax-gaming responses because how taxpayers use these responses can change dramatically over time and across different tax environments. As Shackelford explains, "[t]he half-life of these plans is short. They become obsolete as the law changes and as tax innovators, unaided by patents and copyrights, are forced to recover their investments quickly and develop superior avoidance techniques." Nevertheless, it seems clear that tax-gaming responses have historically been very important.

Moreover,
it seems reasonably certain that tax-gaming responses will remain very important in the future, regardless of how existing tax systems might be replaced or reformed. As Ronald Pearlman has written, tax systems that might plausibly be enacted will "be full of exceptions from a theoretically pure model. To paraphrase the movie Field of Dreams, if you enact it, they will come." Pearlman's "they," of course, refers to the tax lawyers, accountants, and financiers who can be expected to devise numerous tax gaming responses for exploiting any conceivable real world form of taxation.

This Article argues, that when comparing multiple forms of taxation, each of which is based on substantially different base-calculation rules, the tax-gaming responses to these forms of taxation will tend to be at least significantly nonoverlapping. I further argue that this will tend to be especially so with regard to the top portion of best-off taxpayers. Consider, for example, the tax-gaming responses noted above whereby many of the highest-income U.S. taxpayers currently recharacterize their labor income as "capital assets" and then use these "capital assets" to fund consumption purchases, circumventing both the ordinary income and capital gains components of the income tax. For a relatively simple variation on this sort of tax-gaming response, consider entrepreneurs and executives who receive stock in return for their labor and who then borrow against that stock to fund their consumption purchases. Importantly, employing these sorts of tax-gaming responses can shield taxpayers from paying income tax on some of the returns to their labor, but these responses do not in and of themselves shield the taxpayers from any consumption taxes that might attach to the purchases funded through that labor.

For instance, the billionaire Larry Ellison reportedly "bought one of the most expensive yachts in the world" by borrowing against the

liabilities, distorting actions (e.g., investment in sectors where it is easier to convert ordinary income into capital gains) are utilized. There is considerable empirical evidence testifying to the extent and tax sensitivity of these kinds of avoidance behavior.


42 See id. at 80-91; David I. Walker, The Non-Option: Understanding the Dearth of Discounted Employee Stock Options, 89 B.U. L. Rev. 1505, 1520-21 (2009) (noting "equity compensation can be tax advantaged versus the accrual or cash compensation ideal"); David S. Miller, The Zuckerberg Tax, N.Y. Times, Feb. 8, 2012, at A27 ("But how much income tax will Mr. Zuckerberg pay on the rest of his stock that he won't immediately sell? He need not pay any. Instead, he can simply use his stock as collateral to borrow against his tremendous wealth and avoid all tax .... If Mr. Zuckerberg never sells his shares, he can avoid all income tax and then, on his death, pass on his shares to his heirs. When they sell them, they will be taxed only on any appreciation in value since his death.")
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stock he received from laboring as the CEO of Oracle—thereby circumventing much of the income tax that otherwise might have been owed on the returns he received from laboring for Oracle.\textsuperscript{43} Yet to the extent that yacht purchases are subject to sales taxes, luxury excise taxes, value added taxes, or other forms of consumption taxation, Ellison potentially would have been subject to these forms of taxation on purchasing his yacht.

Certainly, Ellison might have also employed different tax-gaming responses to circumvent some of the consumption taxes that might have been owed on his yacht purchase.\textsuperscript{44} But by utilizing multiple forms of taxation, a government can potentially capture more of the metaphorical tax eggs that otherwise would slip through the holes in any single tax basket. Accordingly, although I have not been able to discover what taxes Ellison actually paid on his yacht purchase, there can be little doubt that Ellison pays significant sales tax to California on at least some of his consumption expenditures. Moreover, were the United States to adopt a value added tax (VAT), even more of Ellison’s purchases probably would be subject to taxation, as VATs tend to have far fewer holes than do retail sales taxes.\textsuperscript{45} Reporting suggests that Ellison has sold only a small portion of his perhaps $17 billion worth of Oracle stock, and that he primarily funds his consumption expenditures through borrowing against that stock.\textsuperscript{46} To the extent that these expenditures would be subject to consumption taxation, then, the applicable consumption taxes would likely be capturing portions of Ellison’s labor-funded expenditures—much of which slipped through the holes in the income tax.

Although Ellison appears to have been successful at using tax-gaming responses to circumvent substantial portions of the taxes he otherwise might have owed on both ordinary labor income and capital gains, he probably has not been able to entirely skirt these forms of taxation.\textsuperscript{47} Ellison’s recent cash salary from Oracle has reportedly

\textsuperscript{43} See Miller, note 42, at A27 (“He reportedly borrowed more than a billion dollars against his Oracle shares and bought one of the most expensive yachts in the world.”).

\textsuperscript{44} For an example of a tax-gaming response that another famous taxpayer has used to reduce yacht tax liabilities, see Gayle Fee & Laura Raposa, Sen. Skipper Skips Town on Sails Tax, Boston Herald, July 23, 2010, at 16 (explaining the Senator avoided paying Massachusetts sails tax on his yacht by listing Newport, Rhode Island as the yacht’s hailing port instead of a town in Massachusetts like Nantucket).

\textsuperscript{45} For discussion of the holes in sales taxes and VATs, see Section III.A.

\textsuperscript{46} See Carrie Kirby, Inside Look at a Billionaire’s Budget—Larry Ellison’s Spending Worries His Accountant, S.F. Chron., Jan. 31, 2006, at A1 (“Instead of selling [his Oracle shares], he has financed his lavish lifestyle . . . by borrowing against his stock. . . . [I]t is not uncommon for senior executives to borrow against their stock to avoid parting with it.”).

\textsuperscript{47} Apart from the capital gains tax that Ellison presumably paid on selling some of his stock, he probably has paid at least some amount of income tax when he received his stock in the first place, and Oracle was likely also denied at least some amount of deductions that
been only one dollar annually, but he reportedly sold at least hundreds of millions of dollars of his Oracle stock, likely in order to reduce his risk exposure, and so he presumably paid at least significant amounts of capital gains tax. Moreover, while reporting suggests that Ellison may have used tax-gaming responses so as to pay property tax on only about $65 million of a mansion of his that might be worth over $200 million, that still means that Ellison pays a rather significant amount of annual property tax on his mansion. Overall, then, Ellison appears to have been able to substantially reduce his tax liabilities under multiple forms of taxation, but each of these different forms of taxation appears to have successfully captured a distinct portion of Ellison’s economic resources.

Returning to the metaphor, were it possible to devise a single perfect tax basket, we perhaps should rely solely on that perfect tax basket instead of utilizing multiple imperfect tax baskets. Similarly, if we could devise a single tax basket that was perfect except for one hole, then we might want to focus exclusively on patching that one hole. But if all available baskets have numerous distinct holes, and especially if these holes are constantly changing over time and in reaction to attempts at patching, then we might want to nest multiple baskets—at least so long as the holes in these baskets are at least significantly nonoverlapping.

This analysis, however, does not imply that governments should tax everything. Nesting a large number of baskets might greatly reduce how many eggs fall to the ground, but it might also be costly to construct each incremental basket. Correspondingly, although making use of numerous forms of taxation might substantially decrease the overall distortionary costs from tax-gaming responses, doing so might also substantially increase the administrative and compliance costs of

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48 Robert W. Wood, Tax-Smart Billionaires Who Work for $1, Forbes, Apr. 5, 2014, http://www.forbes.com/sites/robertwood/2014/04/05/tax-smart-billionaires-who-work-for-1/. It is unclear what other forms of compensation Ellison currently receives from working for Oracle and the extent to which this compensation might be captured by either the ordinary income or capital gains components of the income tax.

49 See Kirby, note 46, at A1.

50 See James Temple, Billionaire Larry Ellison Gets $3 Million Tax Break: County OKs His Appeal Based on Falling Value of His Sprawling 23-Acre Estate in Woodside, S.F. Chron., Mar. 27, 2008, at A1 (discussing the property tax on Ellison’s mansion).
the tax system. Ultimately, then, there may be trade-offs between the potential advantages of utilizing multiple forms of taxation to reduce distortionary costs and the potential disadvantages of increasing administrative and compliance costs.

What are the implications for assessing tax reform proposals and for the related question of what forms of taxation a government should employ? This Article proceeds to analyze this question (first, in Part II) at a more general conceptual level and then (second, in Part III) by applying the theoretical framework developed through that more general conceptual discussion to evaluate specific tax policy debates.

Part II analyzes what can be learned from the theoretical and empirical economics literatures. Beginning with seminal work by the economist Martin Feldstein in the 1990's, economists have been struggling with the implications of the evidence that taxpayers engage in a diverse variety of distortionary responses with respect to a different, but related, tax policy question—the question of measuring how changing the rates of an income tax affects the overall distortionary costs induced by the income tax. Under strong assumptions, this literature has demonstrated how analysts can partially answer this question without needing to know much about the specific ways in which taxpayers respond to the income tax. The economist Raj Chetty more recently described approaches of this sort as employing "sufficient-statistics" methodology.51

In a prior Article, I argued that this "sufficient-statistics" methodology can be adapted to inform the question of which forms of taxation a government should employ.52 That Article focused on outlining a theoretical framework for evaluating incremental reforms. This Article builds on that theoretical framework so as to also evaluate fundamental tax reforms. Part II describes the most important elements of the theoretical framework so as to explain the framework to a somewhat broader audience, with a focus on explaining the tax-smoothing principle.53 That Part then analyzes what the empirical economics literature suggests about the key parameters for applying the theoretical framework.

Part III then applies the theoretical framework to analyze selected fundamental tax reform debates. In doing so, Part III makes both a stronger argument and a (related) weaker and more tentative argu-

52 See Gamage, note 5, at 45-48.
53 This Article is written primarily for an audience of tax legal scholars who are familiar with the relevant background literatures. Yet, as compared to the prior article, Section II.A. focuses more on explaining (and less on arguing for) the key aspects of the theoretical framework.
ment. The stronger argument is to assess the reasoning behind why the double-distortion literature concludes that an optimal tax system should consist primarily of only either a labor income tax or a progressive consumption tax, and to show that this reasoning is unpersuasive as applied to real-world tax policy. Double-distortion arguments typically are based on only distortionary costs and not on administrative or compliance costs. Nevertheless, despite the claims made by the advocates of double-distortion arguments, incorporating tax-gaming responses into the analysis implies that overall distortionary costs could be reduced by utilizing some approach for taxing (all of) labor income, consumption, capital income, and wealth.

Importantly, a number of prominent advocates of progressive consumption tax proposals have claimed that a well-designed progressive consumption tax would be immune to tax-gaming responses that involve taxpayers recharacterizing their labor income as a form of "capital" so as to exempt that labor income from the progressive consumption tax. Part III evaluates two of the most influential proposals for implementing a progressive consumption tax so as to demonstrate that both of these variations on a progressive consumption tax would almost certainly remain vulnerable to these sorts of tax-gaming responses. More generally, I argue that any plausible real-world implementation of a progressive consumption tax would contain holes that taxpayers could exploit so as to fund consumption purchases with the returns from their labor while still substantially circumventing the progressive consumption tax. I further argue that supplementing a progressive consumption tax with some form of a capital income tax could alleviate the efficiency costs from these forms of distortions.

Overall, Part III compares some common proposals for taxing labor income, consumption, capital income, and wealth. I argue that the tax-gaming responses to these forms of taxation tend to be at least significantly nonoverlapping, and especially so with respect to the top portion of the best-off taxpayers. Part III thus concludes that utilizing some version of all four of these tax measurements could reduce overall distortionary costs as opposed to not utilizing any version of one or more of these tax measurements. This is the stronger argument developed in Part III.

The weaker and more tentative argument developed in Part III regards administrative and compliance costs. It is difficult to predict how taxing (all of) labor income, consumption, capital income, and wealth might affect administrative and compliance costs, as compared to not utilizing one or more of these tax measurements. I tentatively suggest reasons for concluding why the advantages from utilizing all of
these measurements to reduce distortionary costs might outweigh the possible disadvantages of potentially increasing administrative and compliance costs, at least with respect to the top portion of best-off taxpayers. But this conclusion is only tentative as it is based on very limited empirical evidence.

Ultimately, demonstrating the potential advantages of collecting our tax eggs with more than one basket does not fully answer the questions of exactly which baskets a government should employ or exactly how these baskets should be nested together. Accordingly, this Article raises more questions than it answers. Yet understanding the potential advantages of using multiple tax baskets is an important step toward more fully answering these questions. If the tax legal literature is to meaningfully advise on the future of tax reform, then reform proposals must be evaluated in their non-"ideal" states. Consideration of tax-gaming distortions and administrative and compliance costs thus merits a central place in the analysis of tax reform. In particular, I argue that the implications of tax-gaming responses should be evaluated through marginal analysis (in light of the tax-smoothing principle) and that this analysis supports the use of multiple forms of taxation.

II. UNDERSTANDING THE THEORETICAL FRAMEWORK AND ITS KEY EMPIRICAL PARAMETERS

Following common terminology in the public finance literature, I use the term "tax instrument" to refer to any policy variable that a government might adjust so as to raise revenues or to promote distributional equity. I thus use the phrase "the optimal choice of tax instruments" to refer to governments' decisions about how to raise revenues or how to promote distributional equity, abstracting from the related questions of how much revenue should be raised or how much (or what forms of) distributional equity should be promoted. More informally, when I refer to questions such as what forms of taxation a government should employ, I mean to refer to optimal choice of tax instruments questions. In other words, this Article evaluates only how governments should raise revenues or promote distributional equity; this Article does not directly consider how much revenue should be raised or how much (or what forms of) distributional equity should be promoted.

This Article elaborates and applies a theoretical framework that I developed in a prior Article, which I refer to here as "this Article's theoretical framework" or, more simply, as "the theoretical frame-

54 Gamage, note 5.
work.” Before the theoretical framework can be applied, however, an analyst applying the framework must first determine which tax instruments are to be evaluated. Because any policy variable that a government might adjust to raise revenues or promote distributional equity can be thought of as a “tax instrument,” there are potentially an infinite number of tax instruments that might be analyzed. Yet the theoretical framework was only designed to compare a discrete number of tax instruments in any single iteration of applying the framework. The theoretical framework can potentially be used to analyze a variety of tax reform proposals through repeated iterations of applying the framework. Nevertheless, for now, it should be understood that the choice of which tax instruments are to be evaluated must be determined prior to applying the theoretical framework.

This Article mostly focuses on evaluating the use of “major” tax instruments, by which I mean the setting of tax rates for different forms of taxation each of which has its own distinct base-calculation rules. The theoretical framework can also be applied to analyze the setting of the base-calculation rules within different forms of taxation. But the focus of this Article is on comparing the use of major tax instruments, such as labor income taxes, VATs, capital income taxes, and wealth taxes. More specifically, the focus is on which of these major tax instruments should be used.

55 See Part III.
56 Note that it is difficult (perhaps impossible) to precisely delineate the boundaries between what does and does not constitute a “major” tax instrument.
57 My prior Article discussed how the theoretical framework can be applied to evaluate whether specific legal rules should be designed to promote distribution. Gamage, note 5, at 72-84. The same approach can also be used to evaluate calibrating specific tax-base calculation rules so as to promote marginal amounts of distributional equity or to raise marginal revenues, while holding the remainder of the tax system constant. This is because tax-base calculation rules are a subset of the larger category of legal rules, with tax-base calculation rules being designed to serve the regulatory purpose of measuring the tax base in question. Thus, the analysis in the prior Article of how the theoretical framework can be applied to evaluate designing legal rules to promote marginal amounts of distribution extends to the design of tax-base calculation rules. Note, however, that the theoretical framework only evaluates the trade-offs among distribution, efficiency, and revenues. Consequently, another approach may be needed to determine the efficiency-maximizing setting for a tax-base calculation rule before the theoretical framework can be applied to evaluate the implications of departing from that efficiency-maximizing setting in order to promote distributional equity or to raise revenue. For instance, an analyst might start by applying Weisbach’s framework for evaluating line-drawing problems. David Weisbach, Line Drawing, Doctrine, and Efficiency in Tax Law, 84 Cornell L. Rev. 1627 (1999). His framework is designed to analyze the efficiency-maximizing settings for certain types of legal rules, but—following the double-distortion argument against designing legal rules to promote distribution—Weisbach’s framework does not incorporate distribution. Thus, the theoretical framework can be applied to evaluate optimal departures from the efficiency-maximizing settings implied by Weisbach’s framework so as to better optimize the overall balance between distribution and efficiency.
The remainder of this Part first summarizes and explains the theoretical framework and then assesses the literature relevant for estimating the key empirical parameters for applying the theoretical framework. Readers who already feel comfortable with the theoretical framework from reading the prior Article may wish to skip Section II.A. and begin reading with Section II.B. Readers who are already deeply familiar with the relevant economics literatures may wish to skim much of Part II, as Part II largely focuses on explaining the implications of the economics literatures in order to set up the applications in Part III.

A. Summarizing and Explaining the Theoretical Framework

Often called “optimal tax theory,” the modern structure of public finance economics largely revolves around the challenges of raising revenues and promoting distributional equity in light of governments’ information constraints. A typical starting point is to imagine that governments wish to raise greater revenues from taxpayers with high ability than from taxpayers with low ability. But it is important to understand that “high ability” in this context simply refers to those taxpayers from whom the government wishes to raise greater revenues in accordance with the prespecified social welfare weights. I generally assume in this Article that “ability” is connected to taxpayers’ overall capacity for generating monetary resources (in other words, taxpayers’ “ability to pay”). But this Article’s analysis potentially could be modified based on other notions of ability—that is, on other notions of what it is that the government wishes to accomplish by promoting distributional equity.

If the government had perfect information about each taxpayer’s ability, the government could simply assign a tax liability to each taxpayer. Because governments cannot perfectly observe ability, governments instead must rely on proxies for ability based on information that the government is able to measure. Optimal tax theory scholarship thus typically considers the reason why governments design tax

58 See Bernard Salanie, The Economics of Taxation 64 (2d ed. 2011) (“This is the most important theme in the optimal taxation literature: how much information the government has determines what fiscal instruments it may use.”).


60 For further discussion, see Daniel Shaviro, Endowment and Inequality, in Tax Justice: The Ongoing Debate 123, 125-31 (Joseph J. Thorndike & Dennis J. Ventry Jr. eds., 2002).
systems to measure concepts such as "income" or "consumption" to be that they use these measurements as proxies for ability.\footnote{Louis Kaplow, Taxation, in 1 Handbook of Law and Economics 647, 669-70 (A. Mitchell Polinsky & Steven Shavell eds., 2007). ("The assumption is that differences in earning ability are unobservable, so income, a signal of earning ability, is taxed instead."). Note that ability is sometimes conceived of as a proxy for utility or for something else even more fundamental to the government’s distribution goals.)}

Because governments cannot observe ability perfectly, taxpayers can take actions to conceal their ability from the government. When taxpayers act to conceal their ability from the government, the government loses because less revenue is collected, and the taxpayers also lose if they incur costs in order to conceal their ability.\footnote{It may be that taxpayers can conceal some portions of their ability at no cost. But, to the extent so, any actions taxpayers take to costlessly conceal their ability should be in-framarginal with respect to the relevant tax rates. See Gamage, note 5, at 56-57. Thus, any such actions generally should only generate income effects, not substitution effects. Following standard optimal-tax methodology, this Article factors out income effects, as the implications of income effects depend on how the government spends the revenues it raises. See id. at 44 n. 160.; David Gamage & Darien Shanske, Three Essays on Tax Salience: Market Salience and Political Salience, 65 Tax L. Rev. 19, 62-64 (2011).} The social welfare losses that result from taxpayers incurring costs to conceal their ability from the government are often called "deadweight loss," "excess burden," or "distortionary costs."

A government (in theory) could minimize distortionary costs by levying only lump sum taxes, wherein each taxpayer would be assessed a fixed tax liability the amount of which would not vary based on any choices made by the taxpayer.\footnote{See Shaviro, note 59, at 2.} The reason governments do not typically levy lump sum taxes is distributional equity.\footnote{Id. at 2-7; Louis Kaplow, Accuracy, Complexity, and the Income Tax, 14 J.L. Econ. & Org. 61, 61 (1998).} Optimal-tax-theory scholarship thus generally assumes that governments seek to optimize the trade-off between efficiency and distributional equity.\footnote{See Shaviro, note 59, at 4; see also Nathaniel Hendren, The Inequality Deflator, Interpersonal Comparisons Without a Social Welfare Function 1-7 (July 2014) (unpublished manuscript), available at http://scholar.harvard.edu/files/hendren/files/inequality_deflator_vnber.pdf.}

One guideline for how governments might minimize efficiency costs while promoting distributional equity is the "elasticity principle."\footnote{Gamage, note 5, at 19.} Elasticities are formulas for measuring the extent to which taxpayers engage in additional distortionary tax-reduction behaviors in response to increasing tax rates. All else being equal, the more elastic the tax-reduction behaviors induced by a tax instrument, the greater the distortionary costs generated by increasing the tax rate of the instrument. In order to minimize distortionary costs, then, the elasticity principle implies that lower tax rates should be set for tax instruments that in-
duce more elastic tax-reduction behaviors. In other words, all else being equal, we should tax more those goods and transactions for which taxpayers are less likely to alter their behavior in response to taxation.

Another guideline for how governments might minimize efficiency costs while promoting distribution is the tax-smoothing principle, which implies that, all else being equal, it is more efficient to make use of more tax instruments than fewer tax instruments. The tax-smoothing principle, however, does not necessarily apply to all forms of distortionary costs. This Article's theoretical framework was largely developed for the purpose of evaluating the extent to which the tax-smoothing principle does (or does not) apply in different policy contexts.

1. The Tax-Smoothing Principle

The tax-smoothing principle is based on the notion that taxpayers generally face increasing marginal costs to acting to reduce their tax liabilities. The prior Article discussed at length both the reasons for inferring that taxpayers generally face increasing marginal costs to acting so as to reduce their tax liabilities, and the possibility of exceptions to this general rule. The basic intuition is that taxpayers who desire to reduce their tax liabilities generally should start with the tax-reduction techniques that are the least costly per dollar of tax liability reduced, and should only move on to more costly techniques once less costly alternatives have been exhausted. I argued that this basic intuition should generally apply to all tax-reduction behaviors—including behaviors that might be labeled as tax avoidance, tax evasion, or tax gaming—although there may be exceptions in particular contexts.

To elaborate, consider again the Larry Ellison example. There are numerous different ways in which Ellison might act so as to reduce his tax liabilities. To the extent that he can act to reduce his tax liabilities without incurring any costs (as he perceives costs), he probably will take these actions even if the relevant tax rates are low. Conversely, some taxpayers might not be motivated to act to reduce their tax liabilities no matter how high tax rates might be set—for instance, if these taxpayers perceive it to be immoral to engage in tax-reduction behaviors and consider these morality costs as overpowering any potential benefit from tax savings.

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67 See id.
68 "Costs" in this sense include any factor that might prevent a taxpayer from acting to reduce tax liabilities. So, for instance, both social norms and taxpayer's internal motivations to follow the law or to act in a pro-social fashion constitute costs under this definition, to the extent that these factors might prevent taxpayers from acting to reduce their tax liabilities.
69 See Gamage, note 5, at 56-63.
70 Id at 57-62.
71 Conversely, some taxpayers might not be motivated to act to reduce their tax liabilities no matter how high tax rates might be set—for instance, if these taxpayers perceive it to be immoral to engage in tax-reduction behaviors and consider these morality costs as overpowering any potential benefit from tax savings.
why should he not take actions that would produce some tax benefit at no cost? Yet once Ellison has exhausted any costless ways in which he might reduce his tax liabilities, he will need to decide whether to engage in further tax-reduction behaviors that he perceives as being costly. As a general matter, we can probably expect him to begin with the tax-reduction behaviors that involve the smallest cost per dollar of potential tax benefit, and to proceed to more costly tax-reduction behaviors only once the less costly behaviors have been exhausted. To the extent that Ellison is economically rational, we can expect him to stop engaging in additional tax-reduction behaviors at the point where the marginal cost of engaging in even further tax-reduction behaviors would exceed the marginal tax benefit.

Of course, many of the tax-reduction behaviors that Ellison might engage in could be lumpy, in the sense of involving some amount of fixed costs. To the extent so, Ellison potentially could face decreasing marginal costs to engaging in further tax-reduction behaviors along certain portions of his overall cost function. There are thus exceptions to the general notion that taxpayers face increasing marginal costs to acting to reduce their tax liabilities. However, merely knowing that such exceptions exist is of little help to governments in designing real-world tax policy. In most policy contexts, governments cannot easily learn the details of taxpayers’ cost functions. Moreover, different taxpayers will often face discontinuities at different points along their overall cost functions. When considering a population of taxpayers, then, the most that governments can usually ascertain is that taxpayers generally tend to face increasing marginal costs across the overall span of their cost functions. After all, even if taxpayers’ actual cost functions resemble stair steps more than straight lines, a path that generally rises in a discontinuous stair-step fashion is likely to appear indistinguishable from a truly linear path from the vantage point of someone far away.

Both the tax-smoothing principle and this Article’s theoretical framework are based on numerous assumptions—such as the assumption that taxpayers face increasing marginal costs in reducing their tax liabilities. As my prior Article explains in greater detail, my analysis is not based on believing that these assumptions universally hold true. Instead, my analysis is based on concluding that governments usually will not have the information needed to design tax policy to account for the ways in which these assumptions do not hold true. Optimal tax theory revolves around the challenges that governments confront due to having limited information about taxpayers. Certainly, there

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72 Gamage, note 5, at 51.
73 See notes 61-62 and accompanying text.
may be policy contexts in which governments can obtain useful information about the ways in which the assumptions underlying my analysis do not hold. To the extent so, and as my prior Article elaborates, the prescriptions I argue for should be adjusted to account for the implications of this information. Nevertheless, as a general matter, taxpayers should mostly engage in less costly tax-reduction behaviors before engaging in more costly alternatives, and this is all that is needed for the tax-smoothing principle to generally apply.

Accordingly, because taxpayers generally face increasing marginal costs to acting to reduce their tax liabilities, the distortionary costs generated by any form of taxation should generally rise exponentially with the relevant tax rates. To understand why, consider Figures 1 and 2 below.

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74 Gamage, note 5, at 50-72.
75 Id. at 62-63.
76 Figures 1 and 2 are adapted from the standard textbook depictions of the distortionary costs of taxation, except that these standard depictions usually are based on only specific tax-reduction behaviors, such as taxation imposing a wedge between buyers' willingness to pay and sellers' willingness to accept. Figures 1 and 2 are designed to generalize the insights from these standard depictions. Thus, for example, as applied to the tax-reduction behaviors of consumers substituting away from the purchase of taxed goods, Figures 1 and 2 implicitly assume a competitive market with no producer surplus, as producers' willingness to accept is depicted by the flat line of the X axis. Incorporating the possibility of producer surplus would complicate the graphs, but would not dramatically change the analysis.
Figure 1 depicts the "amount of measured taxable activity" on the X axis.\(^7\) The far right side of the X axis \(Q_p\) represents the amount of taxable activity that would be measured by the government if the taxpayer did not engage in any tax-reduction behaviors.\(^7\) By engaging in tax-reduction behaviors, the taxpayer thus shifts leftward along the X axis. The far left side of the X axis corresponds with zero measured taxable activity, which could be achieved if the taxpayer acted so as to completely eliminate the entire tax liability.

The diagonal line rising from \(Q_p\) to the Y axis represents the marginal cost function faced by the taxpayer for reducing the amount of measured taxable activity (that is, for engaging in tax-reduction behaviors). As discussed earlier, the line is drawn so that the taxpayer faces increasing marginal costs to shifting leftward along the X axis (that is, to reducing the amount of taxable activity measured by the government).

As a general matter, taxpayers should engage in tax-reduction behaviors up to the point where the marginal costs of engaging in further tax-reduction behaviors would exceed the marginal tax benefit from doing so. Figure 1 depicts the tax benefit of reducing measured taxable activity by a unit as \(T\). The taxpayer should thus engage in tax-reduction behaviors until the amount of measured taxable activity is reduced to point \(Q_r\) along the X axis, which corresponds with the point where the marginal cost of further tax-reduction behavior would exceed the marginal tax benefit \((T)\).

In contexts wherein only a single tax instrument is relevant, the tax benefit \((T)\) should be a direct function of the effective tax rate of that instrument. For instance, Figure 1 could depict a flat-rate sales tax, with the X axis then representing the dollars of taxable purchases measured by the government. The tax benefit \((T)\) of reducing measured taxable purchases by a dollar would thus equal the effective sales tax rate.

The shaded triangle represents the total distortionary costs—or deadweight loss \((DWL)\)—generated by the taxpayer's tax-reduction behaviors. This is because the square formed by the horizontal line between \(Q_T\) and \(Q_p\), and by the vertical line measured by \(T\), represents the tax revenue the government does not receive as a result of the tax-reduction behaviors engaged in by the taxpayer. The portion of this square above the marginal cost line represents the net benefit the taxpayer receives from the tax-reduction behaviors after incurring

\(^7\) The Y axis indicates the dollar measurement of costs and benefits. Alternatively, the Y axis could measure utility or any other common metric for comparing costs and benefits.

\(^7\) The "P" in \(Q_p\) is used to indicate that this point on the X axis corresponds with the taxpayer's behavior prior to the use of any tax-reduction techniques—with "P" standing for prior.
costs, with the shaded area below the marginal cost line representing the total costs the taxpayer incurs to engage in the tax-reduction behaviors. The shaded area thus corresponds with potential welfare benefits that neither the taxpayer nor the government receives on account of the distortionary costs.

With that background, I now show how raising the relevant effective tax rates should exponentially increase distortionary costs.

Figure 2 depicts two different marginal tax benefits ($T_1$ and $T_2$) associated with two different effective tax rates. As drawn, $T_1$ is approximately double the height of $T_2$. So, for instance, if Figure 2 represented a flat-rate sales tax, $T_1$ would correspond with approximately twice as high an effective sales tax rate as compared to $T_2$.

The deadweight loss triangle corresponding with $T_1$ is the entire shaded area ($DWL_1$), spanning from $Q_{T1}$ to $Q_P$ along the X axis. In contrast, the deadweight loss triangle corresponding with $T_2$ is only the dark-gray shaded area ($DWL_2$), spanning from $Q_{T2}$ to $Q_P$ along the X axis. Note that the deadweight loss triangle associated with $T_1$ is approximately four times the size of the deadweight loss triangle corresponding with $T_2$.

Figure 2 thus illustrates the basic intuition underlying the tax-smoothing principle. When taxpayers face linearly increasing marginal costs to engaging in tax-reduction behaviors, distortionary costs
rise with the square of the relevant effective tax rates. In other words, doubling the relevant effective tax rate quadruples the magnitude of distortionary costs. More generally, so long as taxpayers' marginal costs to engaging in tax-reduction behaviors rise continuously, it mathematically follows that distortionary costs rise exponentially with the relevant effective tax rates, with the exponent depending on the curvature of the taxpayers' marginal cost functions.

Again, in the real world contexts, taxpayers' marginal cost functions will not always rise continuously. The question then is whether governments can obtain any usable information about the exceptions to the general rule that taxpayers face increasing marginal costs to engaging in tax-reduction behaviors. To the extent that governments can obtain usable information about such exceptions, governments should potentially make use of that information, and the policy prescriptions generated by this Article's theoretical framework should be adjusted accordingly.

Having reemphasized that caveat, I now consider a key question underlying the theoretical framework: What is the source of the marginal tax benefit (T), in Figures 1 and 2 above? In other words, which effective tax rates are relevant for determining distortionary costs?

In some policy contexts, using two different tax instruments to raise revenues should generate two smaller deadweight loss triangles, as compared to raising all of the revenues through only one tax instrument. For instance, consider a government levying a sales tax and deciding whether to exempt a category of goods from the sales tax. All else being equal, the tax-smoothing principle weighs against exempt-

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79 This is because, whenever the marginal costs of tax-reduction behaviors rise linearly, the total distortionary costs resulting from the tax-reduction behaviors can be represented as the area of a triangle. Because the effective tax rate affects both the base of this triangle (by altering the quantity of tax-reduction behaviors) and the height of this triangle (by inducing more costly tax-reduction behaviors at the margin), and because the formula for the area of a triangle is 1/2(base)(height), the distortionary costs of taxation should rise precisely with the square of the relevant effective tax rates whenever taxpayers face linearly increasing marginal costs to tax-reduction behaviors.


81 See Gamage, note 5, at 56-63.

82 As the prior Article explains in greater detail, the policy prescriptions generated by the theoretical framework are offered only as baselines, and these baseline prescriptions should be adjusted to account for any usable information that governments can obtain about the implications of relaxing the assumptions of the theoretical framework. See id. at 50-72.

83 For a simple example, imagine the government deciding whether to: (1) tax both apples and oranges, or (2) exclude apples from the sales tax so as to tax only oranges.
ing goods from the sales tax. 84 The reason is that it is better to have two smaller tax-induced deadweight loss triangles (as in two of DWL₂ in Figure 2) than one larger tax-induced deadweight loss triangle (as in one of DWL₁ in Figure 2). Holding the revenue goal constant, exempting some goods from the sales tax requires taxing other goods at higher rates, which—all else being equal—the tax-smoothing principle suggests would increase overall distortionary costs. 85

Despite these implications of the tax-smoothing principle, the government might still wish to tax some goods at higher rates than others if taxpayers’ responses to taxing some goods are more elastic than to others. 86 Put another way, the tax-smoothing principle is only determinative if all else is equal; when all else is not equal, the implications of the tax-smoothing principle must be balanced against other considerations, such as the implications of the elasticity principle. But, again, the tax-smoothing principle implies that, all else being equal, "it is better to tax many commodities at a lower rate than to tax a few commodities at a higher rate . . . ." 87 Or, as the economist Alan Auerbach explains: "A key lesson of optimal tax theory is that the economic loss from a tax distortion grows with the square of the size of the distortion itself, so a lot of small tax wedges are better than a few large ones." 88 Thus, in those policy contexts in which utilizing two forms of taxation would induce two smaller tax-distortion wedges (or, deadweight loss triangles), the tax-smoothing principle suggests that—all else being equal—it should be more efficient to utilize both forms of taxation.

However, in some other policy contexts, two different forms of taxation may combine to generate only a single tax-distortion wedge, at least with respect to specific forms of distortionary tax-reduction behaviors. For instance, consider a government levying both a labor income tax and a sales tax. How do these two tax instruments affect the tax-reduction technique of substituting leisure for labor (that is, of working less)? If we assume that taxpayers work for the purpose of earning money so as to fund purchases, then the tax benefit of substituting leisure for labor may be a direct function of both the effective rates of the labor income tax and the sales tax. 89 This is because working to fund purchases is taxed both when the money is earned (by the labor income tax) and when the money is spent (by the sales

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85 Based on this logic, the tax-smoothing principle has been called "the broad base rule."
86 Id. For further discussion, see Gamage, note 5, at 20.
87 Id. at 21-22.
88 Rosen & Gayer, note 80, at 340.
89 Alan J. Auerbach, Comment, in Taxing Capital Income, note 21, at 83.
90 See Gamage, note 5, at 24.
tax), and working less so as to have more time to enjoy leisure thus reduces taxable activity for both of these tax instruments. With respect to labor-to-leisure distortions, then, these two forms of taxation may combine to generate a single larger tax-distortion wedge (as in one of $DWL_1$ in Figure 2) rather than two smaller tax-distortion wedges (as in two of $DWL_2$ in Figure 2).\(^{90}\)

Consequently, an important question is to what extent making use of two different tax instruments would generate two separate (smaller) tax-distortion wedges or one combined (larger) tax-distortion wedge. All else being equal, to the extent that using multiple forms of taxation would generate multiple smaller tax-distortion wedges, the tax-smoothing principle suggests that overall distortionary costs should be reduced by using multiple forms of taxation. But to the extent that using multiple forms of taxation would generate a single combined tax-distortion wedge, the tax-smoothing principle does not suggest any advantages to using multiple forms of taxation.

2. The Distinction between Multi-Instrument and Single-Instrument Distortions

Now I turn to distinguishing between “multi-instrument” distortions and “single-instrument” distortions. When a government levies two separate tax instruments, how does this affect distortionary costs? Above, I discussed two possibilities. As the first possibility, the two tax instruments might jointly generate a single combined tax-distortion wedge (as in one of $DWL_1$ in Figure 2). I define this category of distortionary costs as “multi-instrument” distortions.\(^{91}\) This definition is meant to convey that the tax-distortion wedge associated with these distortionary costs is a joint function of the effective tax rates of multiple tax instruments.

As the second possibility, the two tax instruments might separately generate two distinct tax-distortion wedges (as in two of $DWL_2$ in Figure 2). I define this category of distortionary costs as “single-instrument” distortions.\(^{92}\) This definition is meant to convey that the two distinct tax-distortion wedges associated with these distortionary costs are each a direct function of only the rates of a single tax instrument.\(^{93}\)

\(^{90}\) See id. at 24.

\(^{91}\) See id. I might alternatively label these as “common” distortions for all of the tax instruments being evaluated.

\(^{92}\) See id. at 25. We might alternatively label these as “unique” distortions for only one of the tax instruments being evaluated.

\(^{93}\) When more than two tax instruments are being evaluated, there might also be “two-instrument” distortions (when the tax-distortion wedge is jointly generated by two of the tax instruments being evaluated, but is not a direct function of the tax rates of a third tax
For an example of multi-instrument distortions, as explained earlier, labor-to-leisure distortions may be a direct function of the effective tax rates of both labor income taxes and sales taxes. Under certain assumptions, the magnitude of labor-to-leisure distortions might be the same regardless of the extent to which each of these tax instruments is used to raise revenue or to promote distribution, such that labor-to-leisure responses might generate only multi-instrument distortions with respect to comparing these two tax instruments.94

In contrast, many tax-gaming responses likely operate at least partially as single-instrument distortions with respect to comparing a labor income tax to a sales tax.95 For instance, consider the tax-reduction techniques of (1) claiming inflated deductions to reduce labor income tax liabilities, and (2) making purchases outside of the taxing jurisdiction so as to reduce sales tax liabilities. The former tax-reduction technique should directly reduce the taxpayer's labor income tax liability, and only indirectly affect the taxpayer's sales tax liability.96 Conversely, the latter tax-reduction technique should directly reduce the taxpayer's sales tax liability, and only indirectly affect the taxpayer's labor income tax liability.97 Consequently, with respect to comparing a labor income tax and a sales tax, the former technique should primarily generate only single-instrument distortions from the labor income tax, and the latter technique should primarily generate only single-instrument distortions from the sales tax. In other words, these two tax-reduction techniques should generate two smaller tax-distortion wedges, such that the tax-smoothing principle implies that levying both the labor income tax and the sales tax should generate smaller overall distortionary costs than would raising all revenues through only one of these tax instruments.98

3. Three Categories of Distortionary Costs, Plus Overhead Costs

In addition to the categories of multi-instrument distortions and single-instrument distortions, there is also a third possibility for how levying two separate tax instruments might affect distortionary costs.99

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94 See Gamage note 5, at 24.
95 See id. at 35-41.
96 See id. at 8-9.
97 See id. at 37.
98 See id. at 27-29. A formal model in support of this analysis can be found in Gordon & Nielsen, note 30, at 173-74.
99 In addition to single-instrument, multi-instrument, and instrument-shifting distortions, both Alvin Warren and Thomas Brennan have suggested to me that there might also be a fourth category of distortionary responses—which might be labeled as "joint-instru-
Some distortionary tax-reduction techniques involve shifting tax liabilities from one tax instrument to another tax instrument with lower effective rates. For instance, under the current U.S. income tax, taxpayers often seek to recharacterize ordinary labor income as capital gain in order to take advantage of the lower tax rates on capital gains. 100 Assuming that the taxpayers do not then exploit the realization rules so as to defer or circumvent the capital gains tax, and so immediately pay tax at the capital gains rate, these recharacterization techniques generate tax savings based on the difference between the relevant ordinary income and capital gains rates. More generally, techniques of this sort produce a tax benefit \((T)\) based on the difference between the effective tax rates of the tax instrument from which the tax liability is shifted and the tax instrument to which the tax liability is shifted. The tax-distortion wedge associated with these techniques is thus a function of the difference between the effective tax rates of the two tax instruments. I define this category of distortionary costs as "instrument-shifting" distortions. 101 The tax-smoothing principle implies that, all else being equal, the distortionary costs associated with instrument-shifting distortions should rise exponentially with the difference between the effective tax rates of the two tax instruments. 102

Importantly, the tax-smoothing principle only supports the use of multiple tax instruments to the extent of single-instrument and instrument-shifting distortions. By definition, when evaluating which forms of taxation a government should employ, multi-instrument distortions will create the same social welfare costs regardless of which forms of taxation are used. 103 Multi-instrument distortions thus can be fac-

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100 See Saez et al., note 2, at 10-13.
102 See Gamage, note 5, at 32.
103 Id. at 24-26.
old out for purposes of evaluating which forms of taxation a government should employ. 104

Therefore, two key sets of empirical parameters for applying the theoretical framework are: (1) the marginal single-instrument distortions that would be generated by adjusting the tax rates of each tax instrument to be evaluated, and (2) the marginal instrument-shifting distortions that would be generated by adjusting the gaps between the effective tax rates of each set of tax instruments to be evaluated. The larger these two sets of marginal costs, the more weight the tax-smoothing principle places toward using multiple forms of taxation.

A third key empirical parameter is (3) the distributional implications of adjusting the tax rates of each tax instrument to be evaluated. If the government did not care about distributional implications, the government should potentially raise all of its revenue through lump sum taxes. 105 It is thus important to consider distributional implications when evaluating which forms of taxation should be used. Adjusting for distributional implications allows for comparing the different categories of efficiency costs through the common metric of social welfare.

Finally, in addition to distortionary costs, a complete framework for evaluating which forms of taxation to employ must also incorporate administrative and compliance costs. 106 I use the term "overhead costs" to refer to the aggregate category consisting of the administrative costs the government incurs to enforce the tax system, the compliance costs taxpayers incur as a result of the tax system, and all of the other costs associated with raising tax revenues other than distortionary costs. 107 Thus, the fourth key set of empirical parameters for applying the theoretical framework is (4) the marginal overhead costs that would be generated by levying each tax instrument and by adjusting the rates of each tax instrument to be evaluated.

Unfortunately, the existing literature provides only limited general guidance for how overhead costs might function with respect to ques-

104 See id. at 30-31. However, note that many distortionary responses may function as hybrids between multi-instrument and single-instrument distortions, if the responses reduce tax liabilities more for one tax instrument than for another. These responses can be analyzed by factoring out the extent to which the responses operate as multi-instrument distortions and then evaluating the remaining portions of these responses as single-instrument distortions. See id. at 30-31. Also note that, because multi-instrument distortions cannot be reduced by adjusting the mixture of tax instruments levied, these distortions are especially important for the questions of how much revenue a government should raise or how much distribution a government should promote. See text accompanying notes 54-57.

105 See notes 64-65 and accompanying text.

106 See Slemrod & Yitzhaki, note 1, at 1426.

tions about which forms of taxation to employ. Nevertheless, the literature does suggest two aspects of overhead costs that may be generally relevant for these questions.

First, there is reason to infer that overhead costs may often rise with the number of tax instruments levied, even holding revenues raised constant. In other words, there may often be a fixed component to overhead costs with respect to each tax instrument used. This fixed cost component of overhead costs thus might be minimized by utilizing fewer forms of taxation. However, this prescription potentially conflicts with the prescription for minimizing the costs from single-instrument and instrument-shifting distortions.

The second aspect of overhead costs that may be generally relevant when determining which forms of taxation to employ is that overhead costs may often rise with the number of persons (or other agents) charged with tax remittance obligations. Thus, overhead costs may be lower for tax instruments that collect revenues from a small number of taxpayers with greater ability to pay, as opposed to collecting revenues from a larger number of taxpayers with lesser ability to pay.

Overall, then, the greater the marginal costs from single-instrument and instrument-shifting distortions, the greater the potential advantages of utilizing multiple forms of taxation. But these advantages must be balanced against the potential for additional forms of taxation to increase overhead costs. Consequentially, questions about which forms of taxation to employ cannot be answered without estimates for these key empirical parameters (or at least inductive inferences about the plausible bounds of these parameters).

Before proceeding to review the literature relevant for estimating the key empirical parameters for applying this theoretical framework, it is worth noting that the above discussion did not fully explain the power of the tax-smoothing principle. Instead, the above discussion illustrated only what I have previously referred to as the "rule-of-thumb version" of the tax-smoothing principle. Importantly, there are reasons for inferring that the advantages of levying additional tax instruments to supplement a labor income or a progressive consumption tax may be stronger than what is suggested by the rule-of-thumb version of the tax-smoothing principle. However, because these additional considerations are rather complicated to explain, and because these considerations only strengthen the case for levying multiple tax

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108 See Subsection II.B.2.
109 See Gamage, note 5, at 32-34.
110 See id. at 33.
111 See id. at 33-34.
112 See id. at 44.
113 See id. at 41-44.
instruments, I just allude to these considerations here rather than offering a full explanation.\textsuperscript{114} Analysts attempting to quantitatively evaluate which forms of taxation to employ—and especially those analysts also wishing to assess how to set the tax rates for these forms of taxation—should probably incorporate these additional considerations into their estimates. Yet, for the purposes of this Article, it should suffice to note that the rule-of-thumb version of the tax-smoothing principle can be thought of as a rough lower bound on the extent to which levying additional tax instruments might reduce the distortionary costs generated by the overall mixture of the tax instruments.\textsuperscript{115}

\section*{B. Assessing the Key Empirical Parameters}

As the previous Section explained, there are four key sets of empirical parameters for applying this Article’s theoretical framework in evaluating which tax instruments to use: (1) the marginal single-instrument distortions that would be generated by adjusting the tax rates of each tax instrument; (2) the marginal instrument-shifting distortions that would be generated by adjusting the gaps between the effective tax rates of each set of tax instruments; (3) the distributional implications of adjusting the tax rates of each tax instrument; and (4) the marginal overhead costs that would be generated by levying each tax instrument and by adjusting the rates of each tax instrument.

With complete information on each parameter with respect to the forms of taxation to be evaluated, it should be possible to estimate baselines for which forms of taxation should optimally be employed and also for the optimal setting of the tax rates for each form. In combination, complete information on the four empirical parameters should allow for assessing first, the extent to which imperfections in the different forms of taxation overlap or are distinct and second, the efficiency and distributional implications of the potential advantages from utilizing multiple forms of taxation based on the extent to which the imperfections in these forms of taxation are non-overlapping; and, finally, how these potential efficiency and distributional advantages compare to the possible disadvantages if utilizing multiple forms of taxation would increase overhead costs.

For this Article’s purposes, however, these four empirical parameters are probably best thought of as being mostly just a checklist of factors that should be considered when analyzing which forms of taxation to employ. I have not attempted to develop this theoretical

\textsuperscript{114} For further discussion, see id.

\textsuperscript{115} See id. at 44.
framework into a formal model, and there seems limited point in attempting to do so in light of the current lack of empirical estimates for some of the key parameters. Nevertheless, the theoretical framework can still helpfully inform questions about which forms of taxation a government should employ. It can be useful to refer to a checklist of factors that should be considered, after all, especially seeing that so much of the prior literature that has attempted to make policy recommendations based on double-distortion reasoning has disregarded the potential relevance of some of these factors. Moreover, beyond being a checklist of important factors, this theoretical framework can also offer some guidance for evaluating the potential implications of these factors, as elaborated in Part III.

Before proceeding to apply this theoretical framework to specific tax policy debates, this Section discusses what can be learned from the empirical economics literature about the four key empirical parameters for applying the theoretical framework.

There is a relatively well-developed literature on the distributional implications of utilizing different forms of taxation, based on measurements of tax incidence. There are also a number of good studies on the implications of instrument-shifting responses with respect to the analysis of some of the tax policy questions for which these responses are likely to be particularly significant, such as the comparison of labor income taxes to capital income taxes or to corporate income taxes. In contrast, the existing literature is lacking in estimates for single-instrument distortions and marginal overhead costs. This Section thus focuses on assessing these two empirical parameters. In doing so, it mostly focuses on comparing the existing U.S. income tax to other possible supplementary forms of taxation.

1. **The Taxpayer Responsiveness Literature**

There is a sizeable economics literature attempting to empirically measure how taxpayers respond to taxation. There are a number of good surveys of this literature. I do not attempt to repeat the work of those surveys here, but rather highlight some of their conclusions.

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116 For a review of this literature, see Don Fullerton & Gilbert E. Metcalf, Tax Incidence, in 4 Handbook of Public Economics 1787, 1787-872 (Alan J. Auerbach & Martin Feldstein eds., 2002).

Most of the early studies in the taxpayer responsiveness literature attempted to measure labor supply elasticities, in particular by examining the elasticity of the number of hours worked by taxpayers. During the 1970's and 1980's, several empirical studies suggested that labor supply elasticities might be large. A large body of subsequent research, however, has employed more refined empirical methodologies to find measured labor supply elasticities that are rather modest. Most economists now agree that measured labor supply elasticities are overall fairly small, being close to zero for middle-income primary workers and for high-income taxpayers generally, and somewhat higher for low-income and secondary workers.

As discussed further below, these empirical findings do not rule out the possibility that actual overall labor supply elasticities might be large. It could be that existing empirical methodologies are simply not capable of measuring the most important aspects of actual labor supply elasticities, such as if the most important components of actual labor supply elasticities derive from taxpayers reducing their work effort without reducing either hours worked or labor-force participation or if long-term labor supply elasticities are much larger than short-term elasticities. Although we cannot rule out the possibility that actual overall labor supply responses may be large, the empirical literature does not provide support for the inference that these responses are large. This is in notable contrast to the empirical literature offering a plethora of evidence supporting large responsiveness for a variety of tax-gaming responses. As a survey of the literature by three prominent economists explains, "[a]lthough evidence of a substantial compensated labor supply elasticity has been hard to find, evidence that taxpayers respond to tax system changes more generally has decidedly not been hard to find."  

In light of this evidence, beginning in the 1990's, the empirical literature on taxpayer responsiveness moved away from its prior focus on labor supply elasticities and toward also studying how reported taxa-
ble income responds to changes in tax rates.\textsuperscript{125} In a groundbreaking paper, Martin Feldstein argued that the elasticity of taxable income can be used as a sufficient statistic for determining the efficiency costs of labor income taxation.\textsuperscript{126} Feldstein argued that, on the margin, taxpayers should be willing to incur up to a dollar of costs to avoid a dollar of tax liabilities, and that we can thus assume that the deadweight loss from the labor income tax can be calculated based on the elasticity of taxable income and the square of the relevant marginal labor income tax rates.\textsuperscript{127} In essence, Feldstein claimed that the elasticity of taxable income can be used as a comprehensive parameter for measuring the welfare costs from the combination of all of the techniques that taxpayers can use to reduce their labor income tax liabilities, including labor-to-leisure responses and all possible tax-gaming responses, such that the elasticity of taxable income "provides all of the information that is needed to evaluate the deadweight loss of the income tax."\textsuperscript{128}

Inspired by Feldstein, numerous studies have attempted to measure taxable income elasticities. These studies have reported a range of possible results,\textsuperscript{129} but there is general agreement on a couple of points. First, measured taxable income elasticities are much greater than measured labor supply elasticities.\textsuperscript{130} Second, measured taxable

\textsuperscript{125} Within the U.S. tax system, the ordinary income tax rates (in contrast to the capital gains rates) can be thought of as the rates most affecting labor income.

\textsuperscript{126} Martin Feldstein, The Effect of Marginal Tax Rates on Taxable Income: A Panel Study of the 1986 Tax Reform Act, 103 J. Pol. Econ. 551, 552-55 (1995); see also Martin Feldstein, Tax Avoidance and the Deadweight Loss of the Income Tax, 81 Rev. Econ. & Stat. 674, 674-75 (1999) [hereinafter Tax Avoidance]. These two papers by Feldstein spawned a literature that Chetty described as developing a sufficient-statistics methodology for studying income taxation; see Chetty, note 51, at 467-70. This Article's theoretical framework is based on this literature and especially on Chetty's synthesis of this literature.

\textsuperscript{127} Feldstein, Tax Avoidance, note 126, at 675 ("The deadweight loss therefore . . . [i]s equivalent in the current case to the product of the square of the tax rate and the elasticity of taxable income with respect to one minus the tax rate.").

\textsuperscript{128} Id. at 674.

\textsuperscript{129} Gruber & Saez, note 118, at 2-3 ("[T]his subsequent work has generated a range of estimated elasticities, ranging from Feldstein's estimate at the high end to close to zero at the low end. . . . We find that the overall elasticity of taxable income is 0.4, well below the original estimates of Feldstein but roughly at the mid-point of the subsequent literature . . . We also find that this response is driven largely by the behavior of high income taxpayers. . . .").

\textsuperscript{130} E.g., Kaplow, note 2, at 86-87 ("In sum, the elasticity of taxable income is not yet known with confidence. Nevertheless, it appears that this elasticity is significantly larger than the elasticity of labor supply with regard to hours and participation alone."); Alan J. Auerbach & James R. Hines Jr., Taxation and Economic Efficiency, in 3 Handbook of Public Economics, note 80, at 1348, 1361 ("The evidence indicates that taxable income is generally very responsive to tax changes, with estimated response elasticities that significantly exceed the typically very modest estimated effects of taxation on numbers of hours worked."); Meghir & Phillips, note 3, at 252 ("For highly educated individuals the sensitivity of both hours of work and participation to work incentives are almost zero. However, for higher income and higher skill individuals the total income elasticity is substantial").
income elasticities are much greater for high-income taxpayers than for low- and middle-income taxpayers. 131

The more recent literature has noted some limitations to Feldstein’s argument that taxable income elasticities can be used as a sufficient statistic for measuring all of the distortionary costs generated by the labor income tax. 132 Most importantly, 133 some of the tax-reduction techniques measured by taxable income elasticities may involve taxpayers recharacterizing their income so that it is subject to the corporate income tax or the tax rates for capital gains rather than the tax rates for ordinary labor income—in this Article’s terminology, some portions of taxable income elasticities represent instrument-shifting distortions. 134 To the extent that some of the behaviors measured by taxable income elasticities do represent instrument-shifting distortions, Feldstein’s approach may overestimate the efficiency costs of labor income taxation, because the deadweight loss from instrument-shifting distortions must be measured with respect to the gap between the effective tax rates of the tax instruments in question, not with respect to the labor income tax rates alone. 135

. . . .”); Saez et al., note 2, at 4, 17-43 (concluding that “[o]verall . . . the compensated elasticity of labor appears to be fairly small” and then reviewing the empirical literature on taxable-income elasticities to find a range of possible results nearly all of which are much larger than measured labor supply elasticities).

131 E.g. Gruber & Saez, note 118, at 1 (“We estimate that this overall elasticity is primarily due to a very elastic response of taxable income for taxpayers who have incomes above $100,000 per year, who have an elasticity of 0.57, while for those with incomes below $100,000 per year the elasticity is less than one-third as large.”); Raj Chetty, Is the Taxable Income Elasticity Sufficient to Calculate Deadweight Loss? The Implications of Evasion and Avoidance, 1 Am. Econ. J.: Econ. Pol'y, Aug. 2009 at 31, 31 (“The empirical literature on taxable income elasticity has generally found that elasticities are large (0.5 to 1.5) for individuals in the top percentile of the income distribution, and relatively small (0 to 0.3) for the rest of the income distribution . . . .”); Saez et al., note 2, at 6 (“[A] number of empirical studies have found that the behavioral response to changes in marginal tax rates is concentrated in the top of the income distribution . . . .”).

132 E.g., Chetty, note 131, at 32-33; Saez et al., note 2, at 5-17.

133 Other possible limitations to Feldstein’s argument that have received significant attention in the prior literature involve the possibility of externalities or salience effects. I discussed the potential implications of these complicating factors in Gamage, note 5, at 63-69.

134 See Slemrod & Yitzhaki, note 1, at 1443-45. Relatedly, some of the behavior measured by taxable-income elasticities involves taxpayers shifting the timing of their tax liabilities. As with instrument-shifting distortions among different tax instruments, the welfare costs from these behaviors should be measured with respect to the gap between the present value of the effective tax rates at the different time periods. Id. at 1463; Saez, et al., note 2, at 10-13.

135 In other words, measuring just how taxpayers can alter their behavior to reduce their income tax liabilities overstates the welfare costs of this behavior to the extent that the behavior is simultaneously increasing the taxpayers’ liabilities with respect to the corporate income tax or the capital gains tax rates.
For the purposes of this Article, the key question that arises from the taxpayer-responsiveness literature is the extent to which the behaviors measured by taxable income elasticities represent single-instrument distortions, multi-instrument distortions, or instrument-shifting distortions, when comparing the labor income tax to other possible tax instruments. Again, there are several good studies analyzing the possibility that portions of measured taxable income elasticities result from instrument-shifting distortions from the labor income tax to other existing tax instruments.136 But, perhaps because my prior Article was the first scholarly work to introduce the distinction between single-instrument and multi-instrument distortions in a generalized setting, there is essentially no literature analyzing the extent to which taxable income elasticities measure single-instrument distortions as opposed to multi-instrument distortions.

Before proceeding, it is worth noting that nearly all of the studies in the taxpayer-responsiveness literature examine only short- and medium-term elasticities.137 A number of scholars have suggested that labor supply elasticities might be much larger over the long run.138 There may be adjustment costs involved in taxpayers switching jobs,139 optimization errors involved in taxpayers learning about

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136 See note 134.
137 Saez et al., note 2, at 13-14.
138 For discussion, see Kaplow, note 2, at 87-90.
139 See Raj Chetty, John N. Friedman, Tore Olsen & Luigi Pistaferri, Adjustment Costs, Firm Responses, and Micro vs. Macro Labor Supply Elasticities: Evidence from Danish Tax Records, 129 Q.J. Econ. 749, 749 (2011). This groundbreaking paper finds that “two observations suggest that the structural elasticity $\alpha$ is likely to be an order of magnitude larger than the observed elasticities in our data.” Id. at 753. However, the paper’s dataset does not allow the authors to directly measure labor supply elasticities. Instead, the authors attempt to construct a measure for labor supply elasticities by factoring out observable (1) tax evasion, (2) shifting to pension contributions, and (3) shifting of wage income to capital income. Id. at 781-83. The authors acknowledge that they are unable to distinguish between labor supply responses and other tax minimization techniques other than those few listed above. Id. Yet, as discussed in Gamage, note 5, at 37-38 and 60-61, much (if not most) tax evasion cannot be detected through auditing studies (which the authors rely on), and (particularly for high-income taxpayers) much of the wage income shifted into capital income goes untaxed by the capital income tax rules (and thus undetected by the authors’ methods) because of planning based on realization rules. Consequently, there is reason to infer that much of the long-term responsiveness measured by this paper may result from tax minimization techniques other than labor-to-leisure distortions, and this is particularly likely to be true for higher-income taxpayers. The authors note these limitations, and argue that these limitations are not directly relevant for their purpose of measuring the efficiency costs of raising revenues through an income tax. Chetty et al., supra, at 782-83. In contrast, these limitations are crucial for this Article’s purposes.

Similarly, Thomas Piketty, Emmanuel Saez, Stefanie Stantcheva, Optimal Taxation of Top Labor Incomes: A Tale of Three Elasticities, 6. Am. Econ. J.: Econ. Pol’y 230, 231-33 (2014), finds suggestive evidence from cross-country comparisons that both long-run labor supply elasticities and long-run tax avoidance elasticities are relatively small, with elasticities related to rent-seeking behaviors being much larger. However, the authors’ measure
changes to the tax system and calibrating their responses,\textsuperscript{140} or other transition costs that impede taxpayers from adjusting their behavior in response to tax-rate changes, except over long time frames. There is thus a literature comparing the relationship between tax rates and labor supply across different countries, with the goal of measuring what sometimes are called "macro-elasticities."\textsuperscript{141} Some of these studies have concluded that long-term labor supply elasticities may be much larger than those measured over the short term.\textsuperscript{142} But other scholars have questioned these results, arguing that differences across countries are more likely the result of unionization, workplace regulations, or cultural attitudes toward work variables that can explain variation in both tax rates and measured labor supply.\textsuperscript{143}

In any case, the arguments made for why labor supply elasticities may be larger in the long run also apply to taxpayer responses other than labor-to-leisure distortions. There are large transition costs involved in setting up many tax-gaming techniques.\textsuperscript{144} And there is no particular reason to expect that transition costs are larger for labor supply responses than for other tax-reduction strategies. Indeed, many of the most powerful tax-gaming responses involve significantly altering the way income is earned so as to take advantage of gaps in the tax system.\textsuperscript{145} These techniques thus may involve larger transition costs than do changing hours worked or changing jobs within an industry, especially when the tax-gaming responses require renegotiating long-term contracts or if it takes lawyers and accountants some time to devise new tax-gaming responses following changes to tax rates. Similarly, taxpayers are likely to face optimization errors with

\textsuperscript{140} For a discussion, see e.g., Raj Chetty, Bounds on Elasticities with Optimization Frictions: A Synthesis of Micro and Macro Evidence on Labor Supply, 80 Econometrica 969, 970 (2012).
\textsuperscript{141} Id. at 972.
\textsuperscript{144} For instance, important forms of tax planning involve substituting debt financing for equity financing, shifting from using corporate forms to using partnership forms, shifting assets or income-producing activities to lower-tax jurisdictions, establishing trusts, and otherwise significantly altering contractual agreements or the structure of income-producing activities. All of these techniques (and many others) are likely to involve large transition costs.
\textsuperscript{145} Id.; see also Scholes et al., note 39, at 16-28; Schizer, note 32, at 1316-33.
respect to tax-gaming decisions just as with respect to labor supply decisions. Consequently, long-term elasticities may be larger than measured short- and medium-term elasticities for tax-gaming responses as well as for labor supply responses.

2. The Need for Marginal Cost Information

For the purposes of designing an optimal tax system, the only relevant social welfare costs are those that can be affected by adjusting components of the tax system. So, for an example discussed earlier, multi-instrument distortionary costs can be factored out when analyzing which forms of taxation to employ, because—by definition—these costs cannot be altered by adjusting the mixture of forms of taxation are used.

For similar reasons, determining optimal tax policy requires information on the marginal costs of taxation, as only marginal cost information indicates how adjusting components of the tax system affects social welfare. Information on average costs or on total costs is only relevant to the extent that such data sheds light on marginal costs. This is why the taxpayer-responsiveness literature attempts to measure marginal costs, focusing on elasticity measurements—which are functions for expressing marginal cost information.

Unfortunately, the existing empirical literature only provides information on total and average overhead costs, not the needed information on marginal overhead costs. For instance, the economists Joel Slemrod and Shlomo Yitzhaki report estimates that the overall overhead costs created by the U.S. income tax are around 11% of revenues raised. For comparison, Feldstein estimated that the overall distortionary costs generated by the U.S. income tax total 32% of revenues raised. However, Feldstein’s calculations do not account for complications raised by the subsequent literature such as the possibility of instrument-shifting distortions. Moreover, Feldstein’s calculations were based on a much higher measurement for taxable income.

146 For discussion of salience effects and optimization errors, see Gamage, note 5, at 57-69.

147 See notes 103-04 and accompanying text.

148 Jonathan Shaw, Joel Slemrod & John Whiting, Administration & Compliance, in Mirrlees Review, note 3, at 110, 1109.

149 Id.

150 The vast majority of these costs arise from taxpayers' compliance costs (estimated at 10% of tax revenues), with the government's enforcement costs being much smaller (estimated at 0.6% of revenues). Slemrod & Yitzhaki, note 1, at 1448-49.

151 Feldstein, Tax Avoidance, note 126, at 678.
elasticities than those reported in the more recent literature (using more developed empirical methodologies). 152

In any case, these estimates for total overhead and distortionary costs potentially suggest that both categories of costs may be significant. But, again, determining which forms of taxation to employ requires information on marginal costs. A recent review of the literature by three prominent economists concludes (based on the best available estimates for taxable income elasticities) that the marginal distortionary costs created by the U.S. income tax equal about 20% of the marginal dollar of revenue raised. 153 This estimate may be too low, because it is based on measured short-run taxable income elasticities, rather than long-run elasticities. Also, when comparing the income tax to other forms of taxation, it is unclear to what extent this measure represents multi-instrument distortions, single-instrument distortions, or instrument-shifting distortions. And it should be kept in mind that reported elasticities are much larger for higher-income taxpayers than for low- and moderate-income taxpayers. Nevertheless, this measure offers at least some indication of the possible magnitude of marginal distortionary costs. In contrast, we lack even ballpark estimates for the possible magnitude of marginal overhead costs. 154

Lacking estimates for marginal overhead costs, we cannot quantitatively assess how a government should balance the goal of minimizing overhead costs against the goal of minimizing distortionary costs when deciding which forms of taxation to employ. Until the literature produces better estimates of the relevant parameters, then, the best we can do is to speculate about plausible bounds to questions about which forms of taxation to employ, based on the empirical data we do have and on inductive inferences about the other relevant empirical parameters—as this Article does in Part III.


I now return to considering the extent to which the taxpayer responsiveness to the U.S. labor income tax might consist of single-in-

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152 Feldstein applied a measurement for the taxable income elasticity of 1.04. Id. In contrast, Saez et al., note 2, at 42, conclude that the best available estimates for taxable income elasticities in the more recent literature range from 0.12 to 0.40. Feldstein notes that his calculation for the distortionary costs of the U.S. income tax as a percent of revenues raised would be twelve times smaller based on a taxable income elasticity of 0.125. Feldstein, Tax Avoidance, note 126, at 678.

153 Saez et al., note 2, at 42 (estimating that “the marginal excess burden per dollar of federal income tax revenue raised is $0.195 for an across-the-board proportional increase, and $0.339 for a tax increase focused on the top 1 percent of income earners.”).

154 See Shaw et al., note 148, at 1101.
strument distortions, multi-instrument distortions, or instrument-shifting distortions. Crucially, the answer to this question depends on what we are comparing the labor income tax to. We simply cannot say whether a tax-reduction technique constitutes a single-instrument or multi-instrument distortion in the abstract. For instance, at the extreme, when comparing the labor income tax to a lump sum tax, almost all of the responsiveness to the labor income tax should consist of single-instrument distortions, as there is little that taxpayers can do reduce their liabilities under lump sum taxes (beyond perhaps moving entirely out of the taxing jurisdiction).\textsuperscript{155} In contrast, at the other extreme, when comparing the federal-level income tax to a state-level income tax, if the state-level income tax fully conforms with the base-calculation rules and procedures of the federal-level income tax,\textsuperscript{156} then almost all of the responsiveness to the federal-level income tax should consist of multi-instrument distortions. With full conformity, there is little that taxpayers might do to reduce their federal-level income tax liabilities that would not also simultaneously reduce their state-level income tax liabilities.\textsuperscript{157}

For this reason, assessing the extent to which taxpayer responsiveness might consist of single-instrument, multi-instrument, or instrument-shifting distortions is best done in the context of analyzing more specific tax policy debates. I thus mostly delay working through examples to illuminate this question until Part III, so as to better ground those examples by comparing more specific forms of taxation.

Before proceeding to that more detailed discussion, however, it is worth first discussing what can be said about the prevalence of single-instrument distortions at a more general conceptual level. There is at least some reason to expect that almost any form of taxation should generate significant single-instrument responses as compared to other forms of taxation that are based on substantially different base-calculation rules, at least if the form of taxation is levied with high enough tax rates so as to motivate taxpayers to engage in tax avoidance and tax evasion responses. Many important real world tax avoidance techniques involve exploiting gaps in the details of tax-base-calculation rules, as taxpayers strive to reduce their tax liabilities while altering

\textsuperscript{155} See notes 92-95 and accompanying text.

\textsuperscript{156} For a discussion of conformity, see Ruth Mason, Delegating Up: State Conformity with the Federal Tax Base, 62 Duke L.J. 1267, 1274-312 (2013).

\textsuperscript{157} Even with full conformity, there are a number of important ways in which taxpayers might reduce their state-level income tax liabilities that would not directly affect their federal-level income tax liabilities (such as moving taxable income from higher-tax states to lower-tax states). These responses would represent single-instrument distortions for the state-level income tax.
their economic affairs as little as possible. The more contingent a tax-avoidance technique is on the detailed rules of a form of taxation, the more likely that the technique should operate at least partially as a single-instrument response when comparing that form of taxation to other forms of taxation that are based on significantly different base-calculation rules. Similarly, many forms of tax evasion involve taxpayers concealing their taxable resources while otherwise maintaining their regular economic affairs. These sorts of tax-evasion techniques should often at least partially represent single-instrument responses when comparing the form of taxation in question to other forms of taxation based on significantly different tax-base-calculation measurements. Because all real world forms of taxation are subject to tax-avoidance and tax-evasion techniques of these sorts, one can expect that most any real world form of taxation should generate significant single-instrument responses as compared to many other real world forms of taxation. As Ronald Pearlman writes, "[e]very tax system has Achilles' heels . . . [m]oreover, in the real world, every tax system is vulnerable to tax avoidance and tax evasion, much of it un-anticipated during the legislative process."

That said, when comparing most possible forms of taxation, there is reason to expect that a much larger portion of the tax-reduction techniques employed by higher-income taxpayers should constitute single-instrument responses as opposed to the tax-reduction techniques employed by low- and medium-income taxpayers. As noted earlier, the gap between measured taxable income elasticities and measured labor supply elasticities for the U.S. income tax is much larger for higher-income taxpayers. Moreover, it stands to reason that higher-income taxpayers generally should be better positioned to hire lawyers and accountants to structure transactions so as to take advantage of the gaps and loopholes that exist in any real world form of taxation. Similarly, higher-income taxpayers are generally better positioned to negotiate the details of their employment contracts and their other economic affairs so as to maximize tax advantages, whereas lower-income taxpayers often have to accept standardized contractual terms, making it more difficult for lower-income taxpayers to engage in tax-

158 See Shackelford, note 35, at 114-15; Avi-Yonah, note 3, at 1398 ("most of the evidence for behavioral responses . . . relates to tax avoidance strategies (e.g., charitable giving techniques, shifting income from corporations to individuals, and the timing of receipts), rather than to real activities (labor and saving decisions)"); see also Gamage, note 5, at 38-41.

159 Gamage, note 5, at 39-40 & 60-61.


161 See notes 130-31 and accompanying text.


Finally, it is worth re-emphasizing that the more different the rules two distinct forms of taxation use for calculating tax liabilities, the more likely the distortionary responses to each form of taxation will constitute single-instrument responses as compared to the other form of taxation. At the extreme, if two forms of taxation use the exact same base-calculation rules, then essentially all of the distortionary responses to these forms of taxation should constitute multi-instrument responses. For instance, at the U.S. federal level, both the regular income tax and the alternative minimum tax systems use very similar rules for calculating tax liabilities.\footnote{See Staff of the Joint Comm. on Tax'n, 110th Cong., Present Law and Background Relating to the Individual Alternative Minimum Tax 2-5 (Comm. Print 2007) (describing the rules of the AMT).} The primary differences between these two forms of taxation lie in their different rate schedules, rather than in their rules for calculating taxable income. Consequently, most of the distortionary responses to these two forms of taxation probably constitute multi-instrument responses.\footnote{For further discussion, see notes 341-43 and accompanying text.} Conversely, U.S. state-level income and sales tax systems use very different rules for calculating their tax bases. A much larger portion of the distortionary responses to these two forms of taxation thus probably constitutes single-instrument responses with respect to the other form of taxation.

Ultimately, there is only so much that can be inferred about the prevalence of single-instrument distortions based on this sort of more general conceptual discussion. What is needed ideally are empirical studies comparing the taxpayer responsiveness to multiple forms of taxation, as discussed further in the next Subsection. Because we currently lack these sorts of studies, Part III further assesses the taxpayer responsiveness to more specific forms of taxation primarily through analyzing examples of tax-gaming responses. Part III argues that these examples suggest that the tax-gaming responses to these forms of taxation at least significantly consist of single-instrument and instrument-shifting responses as compared to the other forms of taxation considered—in other words, the tax-gaming responses are at least significantly non-overlapping between these forms of taxation—and especially so with respect to the top portion of the best-off taxpayers.
4. Directions for Future Empirical Work

As noted earlier, of the four key empirical parameters, there is a sizable literature relevant for estimating the marginal distributional impact of adjusting the rates of various forms of taxation, and there are a number of good studies related to estimating marginal instrument-shifting distortions with respect to comparing certain forms of taxation. Where the existing literature is lacking is in providing estimates for marginal single-instrument distortions and for marginal overhead costs.

Beginning with the first of these questions, to estimate single-instrument distortions, we need techniques for distinguishing the extent to which measurements of taxable income elasticities result from multi-instrument or from single-instrument responses. One approach for empirically studying the distinction between single-instrument distortions and multi-instrument distortions would be to examine the cross-elasticity of taxpayer responses to one tax instrument with respect to changes in the tax rates for another instrument. For instance, a study might measure the extent to which taxpayers reduce their taxable purchases under state sales taxes in response to changes in the rates of the federal and state income taxes. To the extent that measured taxpayer responsiveness to the income taxes represents multi-instrument distortions as compared to the sales taxes, we should expect taxpayers to reduce both their reported taxable incomes and their purchases subject to state sales taxes. Conversely, to the extent that taxpayer responsiveness to the income taxes represents single-instrument distortions, we should expect taxpayers to reduce their reported taxable income without also reducing their purchases subject to state sales taxes.

Future empirical work might also shed more light on marginal overhead costs with respect to the choice of which forms of taxation to employ. As a starting point, the best approach for examining this question might be to measure the total overhead costs within a variety of different taxing jurisdictions in order to examine the correlations between different tax structures (and in particular the use of different mixtures of forms of taxation used) and the total level of overhead costs within the jurisdiction. A study of this sort probably could only produce suggestive data on marginal overhead costs, but having even suggestive data would be extremely valuable for informing questions about which forms of taxation to employ.

If this Article succeeds in convincing scholars of the importance of these questions, future empirical work quite probably will conceive of

166 See notes 116-17 and accompanying text.
other creative approaches for measuring single-instrument distortions and marginal overhead costs. That we currently lack good estimates for these parameters may be at least partially a result of the prior theoretical literature's focus on labor-to-leisure distortions and on other tax-reduction behaviors that are less contingent on the details of how forms of taxation are implemented. Focusing more on the significance of tax-gaming distortions and on marginal overhead costs should thus (I hope) prod the future empirical literature to produce better estimates for the relative magnitudes of these important forms of efficiency costs.

III. APPLYING THE THEORETICAL FRAMEWORK TO ANALYZE SELECTED TAX POLICY DEBATES

Much of the prior theoretical literature on tax reform has tried to separate the question of what should be taxed from the related question of how tax systems should be implemented. Yet, to a large extent, these two questions are inextricably intertwined. The theoretical literature's insights thus should be integrated with the lessons that the more applied literature teaches about the major imperfections that are likely to manifest in the real world implementations of tax reform proposals.

Certainly, there is value to modeling tax reforms at an abstract level. It is simply not possible to simultaneously analyze all of the considerations relevant to implementing real world forms of taxation. It is thus both useful and appropriate for scholars to evaluate abstract or even "ideal" conceptions of tax systems. But great care should be taken in extrapolating from analyses of these "ideal" conceptions to their real world analogs. Because the empirical literature suggests that tax-gaming distortions and marginal overhead costs

167 Slemrod & Yitzhaki, note 1, at 1425, 1450-56.
168 Id.; Ronald Pearlman, note 40, at 12 ("[I]t is important for policymakers to remember that in order to achieve broad tax policy objectives, it is best not to leave design and implementation issues until the end.").
169 See, e.g., David Gamage, On the Future of Tax Salience Scholarship: Operative Mechanisms and Limiting Factors, 41 Fla. St. U. L. Rev. 173, 173 (2013) ("The U.S. tax system is incomprehensibly complex. Any attempt to assess the U.S. tax system must therefore rely on applying some theoretical frame."); Weisbach, note 57, at 1670-71 ("One is forced between the Scylla of simple generalizations that are sometimes wrong and the Charybdis of an approach that is too complex to apply.").
170 See Sarah Lawsky, How Tax Models Work, 53 B.C. L. Rev. 1657, 1693 (2012) ("[T]he models of law and economics do not authorize irrefutable deductive reasoning about the real world. Reasoning from models to the real world, amplifies, relies on similarity, and is creative and imaginative."); Weisbach, note 57, at 1644 ("The platonic or essentialist notions contained in doctrinal rules are not tied to values that a tax system should promote. . . . [P]latonic approaches also cannot be defended on pragmatic grounds . . . . [P]latonic reasoning only creates complexity and avoidance opportunities.").
may well be of primary importance for many tax policy questions, policy recommendations that do not account for the possibility of these effects should be regarded with suspicion.

When it comes to analyzing proposals for fundamental tax reform, however, there is a difficulty in evaluating tax-gaming distortions. By their very nature these distortions are contingent and context-dependent. So then, how can we know what forms of tax-gaming distortions taxpayers might use in response to hypothetical proposals for future tax reform?

Fortunately, a number of studies in the tax legal literature have already grappled with this difficulty. Although little can be said with certainty about the sorts of tax-gaming responses that might be used to circumvent hypothetical proposals for future tax reform, there is still much that can be said with reasonable confidence. There is a substantial body of tax legal scholarship analyzing the sorts of tax-gaming distortions that likely would be used in response to a variety of proposals for fundamental tax reform. By integrating this scholarship with the insights that can be gleaned from the relevant economics literatures, this Part evaluates the potential implications of tax-gaming distortions with respect to some common proposals for taxing labor income, consumption, capital income, and wealth.

To keep the scope of the discussion manageable, this Part compares only selected versions of these forms of taxation. First, the next Section compares labor income taxes to value-added consumption taxes. Second, the following Section compares progressive consumption tax proposals to supplementary capital income taxes. Third, the final Section compares realization-based capital income taxes to annual-valuation-based wealth taxes.

Through these comparisons, I argue that it is probably optimal for developed country governments that seek to raise substantial revenues while promoting substantial distributional equity (like the United States) to utilize some approach for taxing (all of) labor income, consumption, capital income, and wealth, rather than forgoing the use of one or more of these forms of taxation. However, I do not attempt to determine the best approach for levying any of these forms of taxation. For instance, it might well be superior to integrate these forms of taxation in some ways, rather than levying all of these forms of taxation as separate tax systems. Fully evaluating how these forms


172 See Part II.
of taxation might be implemented or integrated is beyond the scope of this Article.

Moreover, I do not argue that these four forms of taxation are necessarily superior to other potential alternatives beyond those considered. This Part only argues that utilizing all of these forms of taxation is probably superior to not making use of one or more of these forms of taxation. Quite possibly, there might be other forms of taxation that would be superior to use in place of one or more of the forms of taxation I evaluate, or perhaps as an additional supplement to the forms of taxation evaluated. For instance, I do not evaluate wealth transfer taxes (such as estate and gift taxes or inheritance taxes), nor do I evaluate mark-to-market approaches for capital income taxation as an alternative or supplement to realization-based approaches for capital income taxation.

It is my view that proposals for fundamental tax reform are (generally) best analyzed through a series of comparisons between competing reform proposals. I doubt that it is possible to meaningfully evaluate the question of what ultimately would be the most ideal of all possible tax systems. There are so many variables that should be considered in evaluating this question so as to make the scope of the question unmanageable, unless the question is posed so abstractly such that any insights gleaned from the analysis may have little relevance to real world tax reforms.

Therefore, scholarship seeking to shed light on real world tax reform proposals generally should operate at more of a medium level of abstraction. To this end, I propose that scholarship focus more on comparing competing options for tax reform, with the goal of rejecting inferior options. Through a series of such comparisons, the scholarly literature then can work toward identifying more and less promising approaches for tax reform. It might not be possible to determine the ultimately ideal tax system. But if an aim of tax legal scholarship is to inform real world policy debates, this approach should suffice for scholarship to assist in evaluating real world options for tax reform.

A. Comparing Labor Income Taxes and Value-Added Consumption Taxes

The two most important forms of taxation used to raise revenues in most developed countries today are income taxes and VATs. The United States is anomalous among developed countries in not levying

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both an income tax and a VAT, thus raising the question of whether the United States should perhaps adopt a VAT to supplement its income tax.

I put to the side, for the moment, the related questions of whether and how capital and wealth should be taxed. For the purposes of this Section, then, I focus on the portions of real world income taxes that are designed to reach labor income—for example, the ordinary income component of the U.S. income tax. These labor income taxes can be conceived of as forms of taxation whose base-calculation rules are designed to measure the inflows that taxpayers receive from selling their labor.

In contrast to labor income taxes, VATs are similar to retail sales taxes and also excise taxes in that all of these forms of taxation are designed to collect revenues from taxing consumption in the form of market purchases. Yet most scholars have concluded that VATs tend to have fewer holes than do retail sales taxes, because VATs are collected at multiple steps of the production process, rather than just at the retail level. In any case, whereas the bases of labor income taxes are calculated measuring inflows (on the resources taxpayers receive in exchange for selling their labor), the bases of VATs are calculated measuring outflows (on the resources taxpayers expend to purchase market consumption).

Most prior theoretical analyses consider labor income taxes and VATs to be essentially equivalent in terms of distortionary costs. Both of these forms of taxation burden the decision to work for the purpose of funding market consumption, as compared to working less and enjoying more leisure. Thus, in models that focus only on labor-to-leisure and saving-to-spending distortions, these forms of taxation appear to be essentially equivalent, as both forms of taxation similarly

174 Id.
175 These questions are analyzed in Sections III.B and C.
176 E.g., Carroll & Viard, note 24, at 159-61; Joel Slemrod, Comment 2, in Institutional Foundations of Public Finance: Economic and Legal Perspectives 104-05 (Alan J. Auerbach & Daniel N. Shaviro eds., 2009) [hereinafter Institutional Foundations].
177 Or, at least, this is how I conceive of what these forms of taxation measure for the purposes of this analysis.
178 E.g., McCaffery, note 36, at 5-6 ("The two taxes are, from an economic point of view, equivalent."); Ian Crawford, Michael Keen & Stephen Smith, Value-Added Tax and Excises, in Mirrlees Review, note 3, at 275, 276-77; Laurence Seidman, Book Review, 67 Nat'l Tax J. 269, 274 (2014) ("[M]any economists . . . call a labor income tax 'a consumption-based tax' or simply 'a consumption tax.' These economists correctly point out that a labor income tax or a consumption tax, in contrast to a capital income tax, does not distort the trade-off between present and future consumption, and that the lifetime present values of the tax bases under the two systems are identical under certain circumstances.").

Note that VATs and labor income taxes may differ in dynamic models because of the different timing of when the taxes are assessed. But the general point remains that most prior theoretical analyses treat the bases of these taxes as being essentially the same.
burden the labor-to-leisure decision without directly burdening the saving-to-spending decision.\textsuperscript{179}

Moreover, the traditional Haig-Simons formulation holds that consumption equals income minus changes in wealth.\textsuperscript{180} Because neither the bases of labor income taxes nor VATs are designed to reach changes in wealth, analysts thus frequently conclude that these two forms of taxation are essentially equivalent, except for administrative considerations, as the Haig-Simons formulation suggests that the labor component of income equals consumption.\textsuperscript{181} In other words, based on the notion that inflows must eventually equal outflows, analysts often conclude that the bases of labor income taxes and VATs are essentially just opposite sides of the same coin.

Expanding the analysis to incorporate tax gaming, however, reveals that real world labor income taxes and VATs in fact have rather different bases. Even to the extent that actual inflows do equal actual outflows, this does not imply that measured inflows equal measured outflows. As elaborated below, the inflows measured by real world labor income taxes are likely to differ substantially from the outflows measured by real world VATs.

I start by explaining some common tax-gaming distortions that serve to reduce labor income tax liabilities, without directly affecting VAT liabilities—in other words, single-instrument distortions for labor income tax as compared to a VAT. These sorts of tax-gaming distortions allow taxpayers to fund purchases with the returns to their labor while at least partially circumventing a labor income tax.

Perhaps the most serious problem in designing labor income taxes is that it can be very difficult for a tax system to distinguish between labor income and capital income.\textsuperscript{182} Inevitably, this problem seems to open the door for many high-income taxpayers to convert what theoretically would seem to be labor income into forms that the tax system treats as capital income, which then allows for further games, with the eventual result being that the taxpayers can fund consumption

\textsuperscript{179} See Bankman & Weisbach, Ideal Consumption Tax, note 13, at 1417 ("A consumption tax, as a matter of legal implementation, is imposed on consumption and not on labor, but it is economically equivalent to a tax on labor earnings. The reason is that on a going-forward basis, there are two sources of consumption: earnings from labor (wages) and earnings from capital. If, under a consumption tax, capital income is not taxed, all that is left to tax is wages.").


\textsuperscript{182} See, e.g., McCaffery, note 36, at 12-17; Peter Diamond & Emmanuel Saez, The Case for a Progressive Tax: From Basic Research to Policy Recommendations, 25 J. Econ. Persp., Fall 2011, at 165, 181 ("[I]t is often difficult to distinguish between capital and labor incomes.").
purchases while circumventing substantial portions of the labor income tax.\textsuperscript{183} The Ellison example discussed previously illustrates one of the ways that taxpayers can engage in these sorts of games so as to reduce their tax liabilities under the U.S. income tax.\textsuperscript{184} Similar to the earlier discussion of Ellison's tax gaming, many of the best-off Americans appear to have substantially exempted their wealth from the U.S income tax because the initial receipt of their wealth was treated as being related to capital rather than labor income.\textsuperscript{185} Yet, were the United States to adopt a VAT, many of the consumption purchases made by these wealthy Americans would potentially be subject to that VAT.

Of course, the U.S. income tax perhaps might be reformed so as to combat these forms of tax-gaming responses. But it seems rather naïve to think that these forms of tax-gaming responses could be completely shut down. As Daniel Goldberg concludes in assessing some of the gaming responses currently used to reduce U.S. income tax liabilities,

\textbf{[t]axing income is a flawed concept because income itself is an ambiguous concept. It is difficult to define, and its measurement is complicated and subject to substantial disagreement. As a result, an income tax would be deficient even if it were pristine, free of tax incentive provisions and personal itemized deductions. The income tax thus cannot be fixed with just some tinkering.}\textsuperscript{186}

Another sort of tax-gaming response through which taxpayers can reduce their labor income tax liabilities is by inflating deductions through the use of aggressive or even fraudulent valuations. For instance, charitable tax planning is a big business, and U.S. taxpayers have devised numerous creative strategies for giving up something of little value in exchange for a large charitable contribution deduction.\textsuperscript{187} Similarly, there is substantial anecdotal evidence that numer-

\textsuperscript{183} Gamage, note 2, at 37-38.
\textsuperscript{184} See notes 44-47 and accompanying text.
\textsuperscript{185} See, e.g., Christopher H. Hanna, Tax Theories and Tax Reform, 59 SMU L. Rev. 435, 437-38 (2006) ("[M]uch of the wealth of entrepreneurs and capitalists, such as Bill Gates and Warren Buffet, the two wealthiest Americans, has never been taxed because, in each case, the bulk of their wealth is held in stock of corporations that they created or acquired. . . . In other words, Gates and Buffet have primarily pretax wealth, while most individuals have primarily after-tax wealth."); Victor Fleischer, The Top 10 Private Equity Loopholes, N.Y. Times (Apr. 15, 2013, 1:18 PM), available at http://dealbook.nytimes.com/2013/04/15/the-top-10-private-equity-loopholes/?_r=0.
\textsuperscript{186} Goldberg, note 171, at 15.
\textsuperscript{187} See, e.g., Michael A. Livingston & David S. Gamage, Taxation: Law, Planning, and Policy 443-47 (2d ed. 2010); Josh Eagle, Notional Generosity: Explaining Charitable Do-
ous taxpayers inflate deductions related to claiming business expenses. Claiming inflated deductions reduces taxpayers' labor income tax liabilities by the tax value of the deduction claimed, but taxpayers' consumption is only reduced by the value of what is given up. When taxpayers use inflated valuations to claim deductions many times larger than their actual expenses, then, these tax-gaming responses should generally reduce the taxpayers' labor income tax liabilities significantly in excess of any corresponding reduction to the taxpayers' VAT liabilities.

Beyond these specific examples, there is a large literature explaining the various ways that taxpayers act to reduce their income tax liabilities. As Slemrod and Yitzhaki assess this literature:

The research has clarified that when the tax structure changes, people may alter their consumption basket, but they also may call and give new instructions to their accountant, change their reports to the IRS, change the timing of transactions, and effect a set of other actions that do not directly involve a change in their consumption basket. In many cases, particularly for high-income taxpayers, this latter set of responses has larger revenue and welfare implications than the real substitution responses, such as labor supply, that tax analysis has traditionally focused on.

To the extent that taxpayers act to reduce their income tax liabilities without altering their consumption baskets, these behaviors generally should constitute single-instrument responses for the income tax as compared to VATs. Consequently, Slemrod and Yitzhaki's assessment of the literature suggests that at least a substantial portion of the taxpayer responsiveness to the U.S. income tax probably consists of single-instrument distortions as compared to a VAT, and especially so with respect to the highest-income taxpayers.

More generally, both "income" and "labor income" are nebulous concepts. When looking beyond straightforward transactions such

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188 See Goldberg, note 171, at 19-26; Gergen, note 29, at 472-77.
189 Slemrod & Yitzhaki, note 1, at 1464.
190 See id. at 1454-56.
191 A substantial portion of most introductory tax law courses typically involves borderline questions related to "what is income?" and another substantial portion typically involves borderline questions related to what expenses should be deductible against taxable income. E.g., Livingston & Gamage, note 187, at 25-128, 251-454; see also Goldberg, note 171, at 15-44.
as the payment of cash wages, there are thus numerous important real world contexts in which it is rather unclear whether and to what extent the transactions should be considered as involving taxpayers receiving income.\textsuperscript{192} Because income is a nebulous concept, taxpayers have developed numerous tax-gaming techniques for exploiting gaps in the rules for calculating taxable income—and many of these techniques allow the taxpayers to reduce their reported taxable incomes without needing to simultaneously reduce or conceal their market expenditures.\textsuperscript{193}

Less familiar to many U.S.-based tax scholars,\textsuperscript{194} “consumption” and “value-added” are also nebulous concepts, and there are many tax-gaming techniques that reduce VAT liabilities without directly preventing individuals from expending their monetary resources so as to derive utility from market consumption.\textsuperscript{195} At the individual level, perhaps the simplest technique that taxpayers can use to reduce their VAT liabilities is to purchase goods or services from vendors in foreign jurisdictions that do not levy VATs or from domestic vendors who are able to circumvent the VAT. Probably more importantly, there are numerous tax-gaming techniques that business taxpayers can use to reduce their VAT liabilities.\textsuperscript{196}

As Bankman and Schier note, “European VAT systems, like the current U.S. income tax, are plagued by fraud.”\textsuperscript{197} Moreover, beyond clearly illegal fraud, VAT systems have difficulty coping with financial transactions, with the shifting of business income to tax-exempt and loss entities, with the shifting of business income or property to foreign affiliates or to financial intermediaries, with related-party pricing

\textsuperscript{192} Goldberg, note 171, at 15-44.
\textsuperscript{193} Gamage, note 5, at 36-41.
\textsuperscript{194} As Michael Keen and Ben Lockwood note, the “literature on the VAT is surprisingly sparse” and, in particular, “[e]mpirical work on the VAT is also scant.” Michael Keen & Ben Lockwood, The Value-Added Tax: Its Causes and Consequences, 92 J. Development Econ. 138, 139 (2010).
\textsuperscript{195} See Rita de la Feria & Richard Krever, Ending VAT Exemptions: Learning from Experience, Towards a Post-Modern VAT, in VAT Exemptions: Consequences and Design Alternatives 3, 35 (Rita de la Feria ed., 2013) (“One recurrent issue... is the definition of consumption... It has therefore become clear that one of the main challenges of the post-modern VAT will be a rather unexpected one: not about feasible legal designs or economic consequences, but one with an intrinsically philosophical nature, one about philosophy of tax. That is, how to conceptually define what constitutes consumption for the purposes of a consumption tax.”); Walter Hellerstein & Jon Sedon, Challenging Legal Issues Confronting VAT Regimes, 131 Tax Notes 409, 416 (Apr. 25, 2011).
\textsuperscript{196} Bankman & Schier, note 32, at 246.
\textsuperscript{197} Id. at 246 (describing several major forms of fraud and concluding that these “frauds have become so pervasive that they are distorting official trade statistics”); see also Richard T. Ainsworth, VAT Fraud and Technological Solutions, in The VAT Reader 204, 204-06 (2011); Michael Keen & Stephen Smith, VAT Fraud and Evasion: What Do We Know, and What Can Be Done? 59 Nat'l Tax J. 861, 866-68 (2006).
issues, with valuation issues, and with deferral. 198 All of these issues open gaps in VAT-base calculation rules, thus creating opportunities for tax-gaming transactions. Because these forms of tax gaming operate by reducing reported VAT liabilities, rather than by taxpayers substituting away from earning income for the purpose of funding purchased consumption, these forms of tax gaming should largely constitute single-instrument responses for VATs as compared to labor income taxes. 199

Overall then, there is strong reason to infer both: (1) that at least a significant portion of the taxpayer responsiveness to labor income taxes constitutes single-instrument distortions as compared to VATs, and (2) that at least a significant portion of the taxpayer responsiveness to VATs constitutes single-instrument distortions as compared to labor incomes taxes. In other words, the holes in these two forms of taxation are at least significantly nonoverlapping. In light of the tax-smoothing principle, then, I infer that using both of these forms of taxation probably has the potential to reduce overall distortionary costs as opposed to not using one of these forms of taxation.

Based on the existing literature, it is difficult to assess with any confidence whether VATs or labor income taxes are worse in terms of overall distortionary costs (with respect to any fixed amount of revenues to be raised). 200 In their excellent analysis of the tax-gaming responses that taxpayers might employ if the United States replaced its income tax with an X-tax (a form of a VAT integrated with a progressive consumption tax at the individual level), Bankman and Schier agree that the VAT component of the X-tax "will present considerable opportunities for tax planning." 202 Bankman concludes that these opportunities for tax gaming are likely to be less than under the existing U.S. income tax, whereas Schier concludes the opposite. 203 But both of these esteemed tax scholars expect that the VAT component of the X-tax would be "subject to various tax avoidance transactions" and would present considerable "opportunities for socially unproductive tax planning." 204

198 Bankman & Schier, note 32, at 246.
199 Many of these tax-gaming transactions are essentially equivalent to the discussion in the prior article of taxpayers claiming artificial or inflated labor income tax deductions or exclusions, except that in this case the deductions and exclusions are used to reduce business taxpayers' VAT liabilities. See Gamage, note 5, at 8-9.
200 Put differently, it is difficult to assess how elastic the overall distortionary responses are to these two forms of taxation or which form of taxation is more elastic in terms of overall distortionary costs.
201 For further discussion of the X-tax, see notes 262-66 and accompanying text.
203 Id. at 275.
204 Id. at 273-74.
An important complicating factor is that the VATs levied by most real world governments are currently more regressive than are most real world labor income taxes.\textsuperscript{205} If real world VATs induce less distortionary costs than do real world labor income taxes, then, this may just be a result of the fact that higher-income taxpayers tend to engage in more tax-gaming responses than do lower-income taxpayers. A meaningful comparison of VATs and labor income taxes in terms of distortionary costs thus should control for distributional incidence.

It is theoretically possible to adjust labor income tax rates to achieve any desired level of distributional equity. It is also theoretically possible to adjust a VAT so as to achieve any desired level of distributional equity, although doing so requires (for instance) transforming the VAT into an X-tax by integrating the VAT with an individual-level progressive consumption tax.\textsuperscript{206} However, as no real world governments have implemented an X-tax, it is difficult to predict the magnitude of distortionary costs such a tax might induce. Alternatively, a VAT can be made more progressive by levying additional excise taxes on luxury goods purchases, but no real world governments have adopted this approach to anywhere near the extent necessary to make a VAT as progressive as most real world labor income taxes.

I see no reason to think that there would be significant instrument-shifting responses between labor income taxes and VATs.\textsuperscript{207} Also, were the United States to levy a VAT to supplement its income tax, the rates of the labor income tax could be adjusted to achieve the desired level of revenue and the desired distributional incidence of the tax system. Hence, the question of whether it would be optimal for the United States to levy a VAT to supplement its labor income tax should largely boil down to comparing the potential for reducing distortionary costs from single-instrument responses (after adjusting for revenues and distributional incidence) against any increase in overhead costs that might be generated by using both forms of taxation.\textsuperscript{208}

How much potential is there for reducing distortionary costs by levying both a labor income tax and a VAT instead of only one of these forms of taxation? This question probably cannot be answered with

\textsuperscript{205} Avi-Yonah, note 173, at 1651-52.

\textsuperscript{206} See notes 262-66 and accompanying text.

\textsuperscript{207} If there are, then this would strengthen the case for levying both a VAT and a labor income tax. See notes 221-24 and accompanying text.

\textsuperscript{208} This follows from the four questions for applying the theoretical framework. See Subsection II.A.3. Note, however, that there may be important political economy considerations entailed in this question. For a discussion of the implications of political economy considerations, see Gamage, note 5, at 69-72. For a discussion of possible political economy considerations involved in levying a VAT, see Gamage & Shanske, note 62, at 35-38.
any precision based on the empirical information currently available. As discussed earlier, in their review of the taxpayer responsiveness literature, the economists Saez, Slemrod, and Giertz report that their best estimates for the marginal distortionary costs generated by the U.S. federal income tax are approximately 20% of the marginal dollar of revenue raised with respect to all taxpayers, or 34% of the marginal dollar of revenue raised with respect to the top 1% of income earners.\footnote{Saez et al., note 2, at 42.} What portion of these distortionary costs results from single-instrument responses as compared to a VAT? Based on the evidence that overall measured labor supply elasticities are small,\footnote{See notes 119-21 and accompanying text.} and on the analyses of the many tax-gaming responses for both income taxes and VATs that likely represent single-instrument responses as compared to the other form of taxation,\footnote{Gamage, note 5, at 36-41; see notes 160-65 and accompanying text.} it seems reasonably safe to infer that at least a substantial portion of the distortionary costs induced by the U.S. income tax might result from single-instrument responses as compared to a VAT, and especially so with respect to the highest-income taxpayers.\footnote{See notes 160-65 and accompanying text.} In an earlier Article, I suggested as a very rough best-guess estimate that perhaps 50% of the taxpayer responsiveness to the U.S. income tax might constitute single-instrument responses as compared to a VAT or to excise taxes.\footnote{Gamage, note 5, at 40-41.}

Would levying both a labor income tax and a VAT increase overhead costs as compared to levying only one of these forms of taxation? And, if so, by how much? I can only speculate about the answers to these questions based on the empirical information currently available. European Commission officials report that the administrative costs of VATs range from about 0.5% to 1% of revenues collected.\footnote{See U.S. Gov’t Accountability Office, GAO-08-566, Value-Added Taxes: Lessons Learned from Other Countries on Compliance Risks, Administrative Costs, Compliance Burden, and Transition 15-16 (2008), available at http://www.gao.gov/products/GAO-08-566.} In addition to these administrative costs, studies suggest that the overall compliance costs of a VAT are in the neighborhood of 3% to 5% of revenues collected, for countries that raise a substantial share of their tax revenues through a VAT.\footnote{Randall Holcombe, The Value Added Tax: Too Costly for the United States 25 (Mercatus Ctr., George Mason Univ., Working Paper No. 10-32, 2010), available at http://mercatus.org/sites/default/files/publication.VAT.Holcombe.pdf.} We might thus estimate that the overall overhead costs associated with levying a substantial VAT might range from 3.5% to 6% of revenues collected.
What do these estimates suggest about the marginal overhead costs of supplementing a labor income tax with a VAT? Again, it is hard to say, as what is needed is information about marginal costs rather than total costs. Yet it is worth noting that a number of distinguished scholars have suggested that the United States might be able to decrease overall overhead costs by reducing reliance on its income tax in favor of levying some form of a VAT. Moreover, Michael Graetz has proposed integrating a VAT and an income tax in a fashion that would largely exempt most low- and moderate-income taxpayers from the income tax. There is some question about whether this proposal is actually workable, but if so, some variation of this approach could perhaps achieve most of the advantages of levying both forms of taxation in terms of minimizing distortional costs without significantly increasing overhead costs.

The evidence implies that distortional costs are a much larger concern with respect to higher-income taxpayers. Conversely, overhead costs are largely a function of the number of taxpayers charged with compliance and remittance obligations. Empirical studies suggest that the majority of overhead costs probably results from the paperwork obligations imposed on taxpayers generally, rather than from the elements of overhead that might be associated more specifically with higher-income taxpayers. The ratio of overhead costs to tax revenues raised is thus likely to be much higher for low- and moderate-income taxpayers, for the simple fact that fewer tax dollars are collected from these taxpayers. If it is administratively feasible to levy an integrated VAT and income tax in such a way as to levy both forms of taxation with respect to high-income taxpayers while mostly avoiding subjecting low- and moderate-income taxpayers to income tax

216 See Subsection II.B.2.
217 See, e.g., Reuven S. Avi-Yonah, The Three Goals of Taxation, 60 Tax L. Rev. 1, 8 (2006) (stating that the "main reason" for levying both a VAT and a labor income tax "is administrability"); Michael J. Graetz, 100 Million Unnecessary Returns: A Fresh Start for the U.S. Tax System, 112 Yale. L.J. 261, 299 (2002) (concluding that the "principal advantage" of his proposed tax reform plan "would be its major simplification of the lives of the American people"); see also Joel Slemrod, My Beautiful Tax Reform, in Toward Fundamental Tax Reform, note 40, at 135, 137 ("A VAT is not without its problems and complexities; the cost of compliance is not trivial, but is still probably half or less of that of our income tax.").
218 Graetz, note 217, at 290-93.
220 See notes 160-63 and accompanying text.
221 See note 111 and accompanying text.
222 See Slemrod & Gillitzer, note 28, at 75-76 (concluding that "compliance costs dwarf administrative costs" and that compliance costs primarily result from the value of the hours taxpayers spend keeping records and fulfilling other tax filing requirements).
compliance obligations, then this may well be the optimal approach for minimizing both distortionary costs and overhead costs.

Overall then, it seems plausible to me that levying some combination of a labor income tax and a VAT probably would be superior to levying only one of these forms of taxation—at least for developed country governments with high revenue and distributional goals. It seems fairly clear that using some combination of both of these forms of taxation could at least significantly reduce overall distortionary costs, as opposed to not using any version of one or the other of these forms of taxation. In contrast, it is not at all clear how using both of these forms of taxation might affect overall overhead costs. But we at least lack strong reason for inferring that using both forms of taxation would substantially increase overall overhead costs, and it seems possible that doing so might even reduce overall overhead costs.

Certainly, the answers to these questions largely depend on the details of how these forms of taxation might be implemented. Also, whether it makes sense to levy both a VAT and an income tax is partially a function of the government's revenue and distributional goals. The higher the government's revenue and distributional goals, the faster the exponential growth of distortionary costs per marginal dollar of revenues raised, and the greater the advantages of raising revenues and promoting distribution through multiple forms of taxation. Remember that distortionary costs rise exponentially as any form of taxation is used more to raise revenues or to promote distribution. Therefore, the greater the need to raise revenues from high-income taxpayers, the more powerful are the potential advantages of raising this revenue through a larger number of forms of taxation. At some magnitude of revenue needs or distributional goals, then, the advantages of levying both an income tax and a VAT in terms of reducing distortionary costs are very likely to overpower any possible disadvantages in terms of increasing overhead costs.

Many tax legal scholars have previously argued that the United States should levy a VAT to supplement its income tax. Up to now, these arguments have mostly not been based on the potential for reducing distortionary costs, as prior legal scholarship has not been able to convincingly explain how levying both a VAT and a labor income tax could reduce distortionary costs in light of the conflicting implica-

223 Gamage, note 5, at 44; notes 101-02 and accompanying text.
224 I thus suspect that it is not mere coincidence that, as compared to the United States, most of the world's other major developed countries both raise considerably more revenue as a percent of GDP and raise a much larger portion of this revenue from instruments other than an income tax.
225 E.g., Avi-Yonah, note 217.
tions of double-distortion arguments. Applying this Article's theoretical framework clarifies why using both forms of taxation probably has the potential to reduce overall distortionary costs. This analysis thus strengthens the case for why the United States might want to implement a VAT to supplement its income tax.

B. Comparing Progressive Consumption Tax Proposals to Capital Income Taxes

One of the most influential policy applications of double-distortion arguments has been in regard to the question of whether capital income should be taxed. Indeed, prominent scholars have contended that this may be "the single most important tax policy decision." Largely based on double-distortion reasoning, Shaviro has claimed that there is now a "consensus" among many leading law professors and economists in favor of progressive consumption taxes.

This Section begins with a discussion of why the prior theoretical arguments that have been made against taxing capital income have only limited applicability to the real world forms of taxation commonly referred to as "capital income taxes" and "consumption taxes." This Section then proceeds to evaluate the major proposals advocated for how the United States might replace its income tax with a progressive consumption tax. Contrary to the "dominant view" in the prior literature, this Section concludes that it is probably optimal for developed country governments (like the United States) to positively tax capital income at least to some degree.

Moreover, beyond arguing that capital income should be positively taxed, this Section suggests that there may be considerable merit to some of the reform proposals forwarded as mechanisms for implementing a progressive consumption tax—so long as these reform pro-

226 See, e.g., id. at 1, 4 (seemingly implying that historical experience suggests that levying both a labor income tax and a VAT would generate less distortionary costs than levying only a labor income tax with higher rates, but not directly responding to the double-distortion argument with respect to the choice between a VAT and labor income tax, despite addressing the implications of that argument with respect to whether capital income should be taxed); Daniel Shaviro, Update on Graetz Tax Reform Plan, Start Making Sense (June 1, 2005, 12:45 PM), http://danshaviro.blogspot.com/2005/06/update-on-graetz-tax-reform-plan.html (critiquing Graetz’s plan for levying an integrated VAT and income tax on the basis that this plan would not reduce distortionary costs); notes 214-15 and accompanying text.

227 Bankman & Weisbach, Ideal Consumption Tax, note 13, at 1414.

228 Daniel Shaviro, Beyond the Pro-Consumption Tax Consensus, 60 Stan. L. Rev. 745, 747 (2007).

229 Sanchirico, Tax Eclecticism, note 12, at 224 (claiming that it "is clear that the dominant position in tax law and policy" is that capital income should not be taxed "at least as a rule of thumb," and further describing this as the "dominant view").
posals are divorced from the goal of exempting capital income from taxation. Certain proposals for implementing a progressive consumption tax might perhaps do a better job than existing income taxes at combatting major tax-gaming distortions, especially those that exploit the rules for distinguishing labor income from capital income. This Section argues that these reform proposals will almost certainly fail to fully plug these holes, and that combining these reform proposals with supplementary capital income taxes should thus probably be superior to levying these reform proposals in a manner designed to exempt capital income from taxation. Yet approaches for integrating these reform proposals with supplementary capital income taxes present intriguing possibilities for fundamental tax reform.

1. The Limited Applicability of the Arguments Against Taxing Capital Income

Academic debate over whether capital income should be taxed has largely focused on the implications of labor-to-leisure and saving-to-spending distortions.\(^{230}\) Scholars have argued that taxing capital income induces both saving-to-spending distortions and labor-to-leisure distortions.\(^{231}\) Consequently, many scholars have concluded that it is optimal to tax only labor income or consumption, as double-distortion arguments suggest that doing so would induce only labor-to-leisure distortions and not also saving-to-spending distortions.\(^{232}\)

Providing further support for these conclusions, some economists have argued that saving-to-spending distortions are especially odious. A frequently cited argument notes that even a small tax on capital income as it accrues can impose a large burden on the decision to invest in order to fund consumption in the distant future.\(^{233}\) In a model with infinite time frames—wherein taxpayers invest to fund consumption in the infinitely far future—this argument has been interpreted as implying that governments should perhaps not burden savings decisions even if doing so would alleviate labor-to-leisure distortions.\(^{234}\) However, recent work by the economists Ludwig Straub and Iván Werning concludes that the models that are used to derive

\(^{230}\) Carroll & Viard, note 24, at 10-11; Shaviro, note 228, at 759-60.

\(^{231}\) Carroll & Viard, note 24, at 10-11.

\(^{232}\) Id.; Mankiw et al., note 23, at 147.


\(^{234}\) For discussion and critique of this argument, see, e.g., Alan Auerbach, The Choice between Income and Consumption Taxes: A Primer, in Institutional Foundations, note
this result do not actually provide a rationale for not taxing capital income.235

Even the proponents of taxing capital income have largely focused on labor-to-leisure and saving-to-spending distortions. The most influential economics-oriented arguments for taxing capital income have been based on the implications of taxpayer heterogeneity and non-separable preferences.236 These arguments have suggested ways in which taxing capital income might reduce labor-to-leisure distortions, such that labor-to-leisure distortions might at least partially operate as single-instrument responses for a labor income tax as compared to a capital income tax.237 Despite these arguments, and perhaps unsurprising in light of the prior literature’s focus on labor-to-leisure and savings-to-spending distortions, many scholars continue to contend that the economics-oriented literature implies that capital income should not be taxed.238

However, when evaluating the real world policy instruments that we typically label as “capital income taxes” and “consumption taxes,” as opposed to when analyzing highly idealized conceptions of these tax instruments, the empirical literature does not provide support for the


236 For instance, Emmanuel Saez has argued that savings behavior can operate as a tag for ability, because taxpayers with greater ability to earn labor income are more prone to saving. Emmanuel Saez, The Desirability of Commodity Taxation Under Non-Linear Income Taxation and Heterogeneous Tastes, 83 J. Pub. Econ. 217, 228 (2002); Diamond & Saez, note 182, at 181-83. For further discussion, see, e.g., Gamage, note 5, at 52-56; Mikhail Gosolov, Maxim Troshkin, Aleh Tsyvinski & Matthew Weinzierl, Preference Het- erogeneity and Optimal Capital Income Taxation, 97 J. Pub. Econ. 160 (2013).

237 See Gamage, note 5, at 52-56 for a general discussion of the logic behind these arguments and for analysis of the related debates between Chris Sanchirico and a number of prominent advocates of double-distortion arguments.

Another line of argument that potentially supports taxing capital income based on analysis of labor-to-leisure and saving-to-spending distortions can be found in the literature on “New Dynamic Public Finance.” For discussion, see Mikhail Gosolov, Aleh Tsyvinski & Iván Werning, New Dynamic Public Finance: A User’s Guide, in 21 NBER Macroeconomics Annual 317 (Daron Acemoglu, Kenneth Rogoff & Michael Woodford eds., 2006).

238 E.g., Mankiw et al., note 23, at 167, 169 (“Perhaps the most prominent result from dynamic models of optimal taxation is that the taxation of capital income ought to be avoided. This result, controversial from its beginning in the mid-1980s, has been modified in some ways and challenged directly in others, but its strong underlying logic has made it the benchmark. . . . Both statutory tax rates on capital and measures of effective tax rates remain far from zero, the level recommended by standard optimal tax models.”). But see Sanchirico, Tax Eclecticism, note 13, at 224 (“It is clear that the dominant position in tax law and policy is that labor-earnings-only taxation is optimal—at least as a role of thumb. This Article presents an argument for the proposition that labor-earnings-only taxation is effectively never optimal.”).
notion that either labor-to-leisure or saving-to-spending distortions are likely to be the primary concerns. As discussed previously, there is essentially no persuasive empirical evidence that high-income taxpayers substantially respond to taxation through labor-to-leisure responses.\textsuperscript{239} The same conclusion holds for saving-to-spending responses, although there is even more uncertainty in the empirical estimates of saving-to-spending responses.\textsuperscript{240} At the very least, then, it is noteworthy that the empirical literature has failed to offer persuasive evidence that taxpayers significantly reduce their savings behaviors in response to real world attempts at capital income taxation.\textsuperscript{241}

My inferences about real world taxpayer behavior correspond with these empirical findings. There is reason to infer that most taxpayers view consuming in the distant future as very different from consuming in the present,\textsuperscript{242} and that consumption in distant time periods is thus unlikely to be readily substitutable as a response to taxation. Certainly, if tax rates were high enough, and if taxpayers had no other techniques available for circumventing capital income taxes, I would expect those taxes to induce some reduction in savings behavior. But for the highest-income taxpayers who produce the lion’s share of capi-

\textsuperscript{239} See note 3 and accompanying text; Subsection II.B.1.

\textsuperscript{240} See, e.g., Orazio P. Attanasio & Matthew Wakefield, The Effects on Consumption and Saving of Taxing Asset Returns, in Mirrlees Review, note 3, at 675, 728 (“[I]t is unlikely that changes in interest rates due to preferential taxation, or other movements in interest rates, will cause big changes in the level of saving.”); B. Douglas Bernheim, Taxation and Saving, in 3 Handbook of Public Economics 1173, 1210 (Alan J. Auerbach & Martin Feldstein eds., 2002) (“For the United States, there has been relatively little historical correlation between the growth rate of aggregate consumption and measures of the after-tax rate of return. Consequently estimates . . . imply intertemporal elasticities of substitution near zero.”); Gravelle & Marples, note 3, at 6-7 (“Empirical evidence suggests a negligible and possibly negative savings response.”); Saez et al., note 2, at 42 (“[T]here is no compelling evidence to date of real economic responses to tax rates . . . at the top of the income distribution.”); Eric Toder & Kim Rueben, Should We Eliminate Taxation of Capital Income?, in Taxing Capital Income, note 21, at 89, 127, 129 (“[S]tudies have found . . . mixed effects of interest rates on saving [and] evidence of the responsiveness of saving to after-tax returns is low . . .”).

\textsuperscript{241} See note 240. There is a large theoretical literature that infers that saving-to-spending elasticities may be significant based on stylized models of how taxpayers save in order to smooth consumption over their lifecycles. But in addition to relying on other strong assumptions, these studies do not consider the possibility of taxpayers circumventing taxes on capital through tax-gaming transactions as an alternative to substituting spending for saving. Thus, these studies are compatible with the possibility (or, in my view, the strong likelihood) that saving-to-spending distortions may be of second-order importance as compared to tax-gaming techniques for circumventing taxes on capital income, at least for the highest-income taxpayers. For reviews of this literature, see, e.g., Attanasio & Wakefield, note 240; Bernheim, note 240.

tal income, both real world labor income and (especially) capital income taxes appear to be relatively easy to game. 243 I thus think it likely that most of the responsiveness to real world capital income taxes consists of distortions that are more contingent on the details of how these taxes are implemented. I am skeptical that even a substantial portion of the responsiveness to real world capital income taxes consists of either saving-to-spending or labor-to-leisure responses, especially for the highest-income taxpayers. Perhaps I am wrong about these inferences; I fully admit that the existing evidence is inconclusive. Nevertheless, this inconclusiveness does not support defaulting to the assumption that labor-to-leisure or saving-to-spending distortions should be treated as primary considerations. Importantly, whereas we lack convincing evidence of substantial labor-to-leisure or saving-to-spending distortions, there is considerable evidence that taxpayers respond to capital income taxation through a diverse variety of tax-gaming responses.

Moreover, some recent scholarship suggests that there might not even be much difference between an idealized income tax and an idealized consumption tax, as these forms of taxation have typically been conceived of in the prior theoretical literature. 244 As Weisbach has argued:

The risk-free return historically has been close to zero. All that [a hypothetical, idealized] income tax taxes that a [hypothetical, idealized] consumption tax does not is this amount. Therefore, an income tax taxes vanishingly little not taxed under a consumption tax. Notwithstanding the long debate over the two tax bases, they are essentially the same. 245

He further concludes that the prior theoretical debate over capital income taxation “therefore, is almost meaningless, and the decision is best made purely on administrative grounds rather than on theoretical considerations about the appropriateness of taxing capital.” 246 Other scholars have disagreed with these conclusions, and have argued that there is more of a difference between idealized income and consumption taxes (as conceived of in the prior theoretical literature). 247 Yet even these scholars do not provide reasons for inferring that labor-to-leisure or saving-to-spending distortions are especially important fac-

244 Weisbach, note 180, at 26-27.
245 Id. at 24.
246 Id. at 25.
247 See e.g., Brooks, note 181, at 301.
tors for evaluating the real world policy instruments commonly labeled as capital income taxes and consumption taxes.\textsuperscript{248}

Ultimately, regardless of whether it is theoretically desirable (or even possible) to burden the returns to savings, taxpayers' assets do in fact appreciate, and the policy instruments commonly labeled as capital income taxes do in fact raise significant revenues from measuring this appreciation.\textsuperscript{249} Furthermore, there is little doubt that measured appreciation tends to be associated far more with better-off (that is, "high ability") taxpayers than with worse-off (that is, "low ability") taxpayers.\textsuperscript{250}

When evaluating existing and proposed real world capital income and consumption taxes, then, there is little reason to infer that considerations related to labor-to-leisure or saving-to-spending distortions should be the primary concerns.\textsuperscript{251} Instead, what Weisbach refers to as "administrative" considerations probably should be the central focus.\textsuperscript{252} Not coincidentally, this Article's theoretical framework is designed to analyze what Weisbach presumably would label as "administrative considerations"—in particular, distortionary costs related to tax-gaming responses that exploits the idiosyncratic design of forms of taxation, and overhead costs. Put another way, it might be an interesting theoretical question to ask whether governments should seek to tax the returns to savings, narrowly defined. But this question is rather removed from the question of whether governments should

\textsuperscript{248} See id. at 302 ("There is no question that this is a theoretical result. We do not have a pure, normative Haig-Simons income tax, nor, arguably, should we. We also do not have the complete capital markets that the Domar-Musgrave result requires, and so on. This Article is not arguing that capital income is effectively taxed only because of the effects I describe here. In fact, capital income does face a real and material tax under our current income tax system.").

\textsuperscript{249} Alan J. Auerbach, The Future of Capital Income Taxation, 27 Fiscal Stud. 399, 401, 411 (2006) ("In light of the substantial revenues we collect from taxing capital income . . . only a small portion of the measured return to capital represents the normal return to new saving that our theories tell us not to tax. Eliminating all taxes on capital income gives up much more revenue than simply eliminating the tax on the normal return to new saving, and does little for the cause of equity, in fact and in appearance.").


\textsuperscript{251} It is important to distinguish here between saving-to-spending distortions and distortions as to choices among different forms of savings (or different forms of capital investment). The latter forms of distortions may well be of primary importance. For further discussion, see note 300.

\textsuperscript{252} See note 246 and accompanying text.
utilize the real world policy instruments typically thought of as being capital income taxes.

For a general overview of this Section's argument, I start with the optimal-tax-theory notion that governments seek to raise revenues based on measuring taxpayers' "ability" or "ability to pay." As discussed in the previous Section, we might then conceive of labor income taxes as attempts at measuring ability by examining inflows. Correspondingly, we might conceive of VATs and excise taxes as attempts at measuring ability by examining outflows. Real world attempts at measuring both inflows and outflows are likely to be at least somewhat imperfect, because all of these forms of taxation induce tax-gaming responses.

Real world capital income taxes then can be conceived of as attempts at measuring ability by examining the appreciation of taxpayers' assets. In theory, the resources used to purchase assets must first come to taxpayers as inflows, and the returns taxpayers enjoy from the appreciation of their assets must at some point be used as outflows. In practice, however, taxpayers may be able to purchase assets with resources that they obtained while circumventing forms of taxation designed to measure inflows, and they may be able to enjoy the fruits of the appreciation of their assets while circumventing forms of taxation designed to measure outflows. Thus, although in theory large portions of appreciation can be taxed through forms of taxation designed to measure inflows and outflows (such as, labor income taxes, VATs, and other consumption taxes), these theoretical forms of equivalence are likely to at least partially break down in practice—and especially so with respect to the best-off taxpayers.

In other words, the holes in the real world forms of taxation designed to measure inflows, outflows, and appreciation are all likely to be at least significantly nonoverlapping with the holes in these other forms of taxation, as the base-calculation rules for these different forms of taxation tend to be rather different. Therefore, in light of the tax-smoothing principle, we can infer that using some version of all three of these forms of taxation should have the potential to reduce overall distortionary costs, as compared to not making use of one or more of these forms of taxation.

Proceeding with the analysis, on one hand, real world capital income taxes may tend to have far worse holes than real world labor

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253 See note 60 and accompanying text.
254 See Subsection III.A.
255 As discussed in Subsection II.B.3, the more different the base calculation rules of different forms of taxation are, the more likely a greater portion of the tax-gaming responses to each form of taxation will consist of single-instrument responses with respect to the other forms of taxation.
income taxes or VATs. Yet, on the other hand, measured capital income tends to be far more concentrated amongst the best-off (or, high ability) taxpayers than either labor income or consumption, such that levying even a low tax rate on capital income has the potential to promote substantial distributional equity. Moreover, even if the capital income taxes that governments plausibly might employ have far worse holes than do plausible labor income or consumption taxes (with respect to any fixed sum of revenues to be raised, and even after adjusting for distributional impact), it still may be optimal to levy a substantial capital income tax as a supplement to these other forms of taxation, in light of the tax-smoothing principle. Therefore, even if the majority of revenues should be raised through some combination of a labor income tax and a VAT, I argue that it is probably optimal for developed country governments to also tax capital income so as to raise significant revenues and promote significant distributional equity at the margin.

For these reasons, and as the remainder of this Section elaborates, it is probably optimal to tax capital income to at least some degree. Moreover, incorporating the implications of tax gaming suggests that it is likely optimal to tax capital income even under the controversial assumptions of double-distortion arguments that labor and consumption are weakly separable and that taxpayers are homogeneous except in their ability to earn labor income. Thus, for readers who may already have been convinced that it is optimal to tax capital income based on the arguments of Saez or the other related scholarship discussed previously, this Section’s analysis implies that capital income should be taxed at higher effective rates than what would be optimal based solely on those prior arguments.

Before proceeding, it is important to emphasize that sophisticated consumption tax proponents do not necessarily advocate (for instance) reducing the tax rates on capital gains within the context of the existing U.S. income tax. Among other concerns, these scholars generally recognize that taxpayers can employ instrument-shifting techniques to transform their ordinary labor income tax liabilities into capital gains liabilities within the current U.S. income tax rules. These scholars thus advocate instead for replacing the existing U.S. income tax with some form of a progressive consumption tax. In support of this position, many of these scholars argue that a well-designed pro-

256 Bankman & Weisbach, Ideal Consumption Tax, note 13, at 1415. But note that there are proposals for how capital income taxes might be designed so as to fix many of the problems plaguing existing real world capital income taxes; note 266.
257 But note that I do not argue for taxing capital and labor income at the same rates.
258 For discussion of these assumptions, see Gamage, note 5, at 52-56.
259 See notes 10-12 and accompanying text.
gressive consumption tax could prevent taxpayers from employing instrument-shifting techniques to convert their consumption tax liabilities into a form treated as tax-exempt capital income.\footnote{See, e.g., Kaplow, note 2, at 233; David Weisbach, Implementing Income and Consumption Taxes, in Institutional Foundations, note 176, at 59, 76 ("This means that relabeling wages as capital income cannot reduce taxes."); Daniel Shaviro, Tax Policy Colloquium, Week 5: Should We Raise the High-End Tax Rates to 70 Percent?, Start Making Sense (Feb. 27, 2013, 2:18 PM), http://danshaviro.blogspot.com/2013/02/tax-policy-colloquium-week-5-should­we.html (claiming that “no good consumption tax model” requires distinguishing between labor income and capital income).}

There are a variety of proposals for how a progressive consumption tax might be implemented.\footnote{Auerbach, note 33, at 40 ("[T]here are several attributes that define a consumption tax and distinguish it from an income tax, although not all of these attributes are found in every variant of the consumption tax."); see also Daniel N. Shaviro, Replacing the Income Tax with a Progressive Consumption Tax, 103 Tax Notes 91, 100 (Apr. 5, 2004).} I focus on what I believe are the two most influential of these proposals. First, as noted earlier, what is typically called an “X-tax” would implement a modified VAT wherein businesses would deduct wages from their VAT liabilities and workers would be taxed on wages at progressive rates.\footnote{Bankman & Schier, note 32, at 246.} Second, what is sometimes called either a “Personal Expenditures Tax” (or “PET”) or a “cash-flow consumption tax” would implement a modified labor income tax such that taxpayers would deduct all savings (including “deposits into savings accounts, asset purchases, amounts lent to others, and payments made on outstanding debts”) but would then be taxed on all dissavings (including “withdrawals from savings accounts, gross proceeds of asset sales, amounts borrowed from others, and payments received on outstanding loans”).\footnote{Carroll & Viard, note 24, at 33.} In theory, neither of these approaches for implementing a progressive consumption tax would burden the returns to saving, and both approaches could be implemented so as to promote any desired level of distributional equity.\footnote{For more detailed explanations, see id. at 33-39.}

These proposals typically are advocated as mechanisms for exempting capital income from taxation while still maintaining progressivity. I argue that supplementing these proposals with some form of a capital income tax probably would be superior to implementing these proposals in a manner that exempts capital income from taxation. I focus my analysis on the U.S. context, but my arguments should also apply more generally to other developed country governments that seek to raise substantial revenues while promoting significant distributional equity.
2. The Case for Supplementing Progressive Consumption Tax Proposals with a Capital Income Tax

Under a pure X-tax, individual taxpayers would not be taxed on dividends, interest payments, or other similar returns to investing.\(^{265}\) Supplementing the X-tax with a capital income tax thus would result in these payments to individuals being taxed under the rates and rules for the supplemental capital income tax. This tax could thus be structured similar to how capital income is taxed under the current U.S. income tax. There are quite possibly better approaches for designing a capital income tax to supplement an X-tax,\(^{266}\) but I discuss this approach for ease of exposition. For example, in November 2005, the President's Advisory Panel on Tax Reform recommended two alternative approaches for fundamental tax reform.\(^{267}\) One of these approaches—the so called "Growth and Investment Tax" or "GIT"—combined an X-tax with a supplementary capital income tax that would have levied a 15% tax rate on dividends, capital gains, and interest income.\(^{268}\) The GIT was conceived of as a compromise between consumption tax advocates and the defenders of capital income taxation, and the proposal does not appear to have been anyone's first choice.\(^{269}\) Nevertheless, the GIT proposal provides an example for how an X-tax might be supplemented with a capital income tax.

Under a pure PET, individual taxpayers would deduct savings and would then be taxed on dissavings.\(^{270}\) One approach for combining a PET with a supplemental capital income tax would be to levy an additional tax on capital gains, interest, dividends, and similar returns to investments—similar to how these items are taxed under the current U.S. income tax. Thus, taxpayers who realized capital gains but then reinvested those gains would be subject to only the supplemental capital income tax. In contrast, taxpayers who realized capital gains and then used those gains to fund consumption would be subject to both the PET tax rate and the supplemental capital income tax rate, as this

\(^{265}\) Earnings would be taxed at the business level under the VAT-component of the X-tax, but would not be taxed again on distribution to stockowners. See Bankman & Schier, note 32, at 245.

\(^{266}\) See, e.g., Alan J. Auerbach, Retrospective Capital Gains Taxation, 81 Am. Econ. Rev. 167, 169 (1991) (proposing an alternative approach for taxing capital income); Gergen, note 171, at 209-12 (evaluating alternative approaches for taxing capital income).


\(^{268}\) Id. For discussion, see Michael J. Graetz, Tax Reform: Time for a Plan C?, Economist's Voice, Dec. 2005, at 1-2.


\(^{270}\) See Carroll & Viard, note 24, at 33.
would constitute both a realization of the gains and a form of dis-saving. There are probably better alternative approaches that might be used to supplement a PET with a capital income tax. But, for now, I focus on this approach for ease of exposition.

Returning to the double-distortion argument for why capital income should not be taxed, it is important to understand that: (1) because the tax base of only consumption (that is, of measured outflows) is smaller than a tax base consisting of both consumption and capital income (that is, of both measured outflows and measured appreciation), and (2) because capital income (that is, measured appreciation) tends to be concentrated among higher-income taxpayers, a progressive consumption tax must levy steeper statutory rates on higher-income taxpayers as compared to an income tax with the same distributional incidence. Nevertheless, despite the progressive consumption tax needing to levy higher statutory tax rates, the double-distortion position concludes that the progressive consumption tax would impose the same effective tax rates on labor supply decisions as the income tax. Because one of the reasons that taxpayers work to earn income is for the purpose of investing that income in order to fund future consumption, taxing capital income reduces the returns to work. Hence, under the assumptions of double-distortion arguments, taxing capital income would induce the same labor-to-leisure distortions as would taxing only labor income, in addition to also inducing saving-to-spending distortions, such that it is strictly optimal to forgo taxing capital income.

Based on this logic, consumption-tax advocates often criticize what they call the “trade-off fallacy.” The trade-off fallacy refers to the arguments sometimes made that, because a progressive consumption tax would levy higher statutory tax rates on labor income, the progressive consumption tax would distort labor supply decisions more than would taxing both labor income (or consumption) and capital income. The “trade-off” in this fallacy refers to the idea that an optimal tax system should balance the concern of not distorting saving-to-spending decisions through capital income taxation against the concern of not distorting labor-to-leisure decisions through labor income taxa-

271 My favored approach probably would be to allow a full deduction for invested funds only for low- and moderate-income taxpayers, with the highest-income taxpayers being allowed only a partial deduction. The nondeductible portion of invested funds could then be tracked via a basis measurement. In future scholarship, I hope to elaborate on how this approach could work and on its advantages over alternative approaches.

272 Carroll & Viard, note 24, at 41.

273 Id. at 18-19.

274 Id.

275 Id.; Bankman & Weisbach, Ideal Consumption Tax, note 13, at 1420, 1422-28.
tion. Under the assumptions of the double-distortion models, there is no trade-off, because taxing capital income would distort both saving-to-spending decisions and labor-to-leisure decisions.

Yet even if consumption-tax advocates are correct about the trade-off fallacy with respect to labor-to-leisure and saving-to-spending distortions, incorporating tax-gaming demonstrates that there is in fact a trade-off between the single-instrument distortions generated by consumption taxation and the single-instrument distortions generated by capital income taxation.

Consider first the X-tax. At the individual level, taxpayers might reduce their X-tax liabilities by (for instance) purchasing goods or services from a vendor in a foreign country that does not levy a VAT. 276 As noted earlier, there are also numerous tax-gaming techniques that businesses might use to reduce their VAT liabilities under an X-tax. 277

For the purposes of this Article, the key question is the extent to which these tax-reduction techniques would constitute single-instrument, multi-instrument, or instrument-shifting distortions, as compared to a supplementary capital income tax. Remember that raising revenues by supplementing an X-tax with a capital income tax would allow a government to lower the statutory rates of both the VAT component of the X-tax and the progressive rates levied on individuals' salary incomes. These lower statutory rates should then decrease the incentives for both business and individual taxpayers to engage in many tax-gaming responses for reducing X-tax liabilities. 278 For instance, consider a business taxpayer contemplating reducing its VAT liability through inflating valuations in order to claim excess deductions. 279 These techniques should directly reduce the business-taxpayers' X-tax liabilities, implying that business-taxpayers' incentives to engage in these techniques should be directly related to the rates of the VAT component of the X-tax. In contrast, it is not clear what effect adjusting the rates of the add-on capital income tax would have on business taxpayers' incentives to engage in these transactions, as these techniques would not directly affect any taxpayers' capital in-

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276 See notes 195-96 and accompanying text.
277 See note 196 and accompanying text.
278 This is because, as explained in Section II.A., the marginal tax benefit derived from engaging in many of these tax-gaming responses would be equal to the effective marginal tax rate.
279 For further discussion of how such techniques might work, see, e.g., John W. Diamond, Book Review, 61 Nat'l Tax. J. 337, 342 (2008) ("The most basic opportunity arises because businesses may deduct the cost of any nonfinancial asset up to the point of eliminating their entire tax liability. . . . This type of incentive would encourage some businesses to find or create a tax-evading seller and, thus, would be associated with large revenue losses."); Bankman & Schler, note 32, at 248-49.
come tax liabilities. Indeed, to the extent that business taxpayers' motivations to engage in these techniques might be for the purpose of maximizing profits so as to pay dividends to stockowners, levying a supplementary capital income tax potentially could reduce incentives to engage in these tax-gaming techniques, because any extra profits generated by reducing X-tax liabilities would be subject to the supplementary capital income tax on distribution to stockowners. Hence, many (if not most) of the tax-gaming techniques through which taxpayers might reduce their X-tax liabilities should at least partially constitute either single-instrument or instrument-shifting distortions as compared to a supplementary capital income tax.

Crucially, to the extent that the X-tax would generate any single-instrument or instrument-shifting distortions as compared to a supplementary capital income tax, a variation of the "trade-off fallacy" would not in fact be a fallacy. Raising some portion of revenue through a supplementary capital income tax would allow a government to reduce the tax rates for the X-tax, which would thereby decrease taxpayers' incentives to engage in tax-reduction techniques that constitute single-instrument distortions for the X-tax as compared to the supplementary capital income tax. Thus, even if the capital income tax would generate much larger costs from single-instrument distortions than would the X-tax (for any fixed amount of revenue to be raised), overall distortionary costs could still be minimized by levying both an X-tax and a supplementary capital income tax, following the tax-smoothing principle. Certainly, it might be optimal to set the tax rates for the supplementary capital income tax well below the rates of the X-tax, depending on the relative elasticities of the single-instrument distortions generated by the two forms of taxation. Nevertheless, minimizing distortionary costs would require positively taxing capital income to at least some degree.

Moreover, in addition to single-instrument distortions, the X-tax would also almost certainly generate instrument-shifting distortions with respect to a supplementary capital income tax. Scholars such as Diamond, Banks, and Saez have previously discussed the possibility of instrument-shifting distortions as a general argument for why capital income should be taxed. But a number of sophisticated consumption tax advocates have claimed that a well-designed progressive con-

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280 See Gamage, note 5, at 8 (discussing the analogous case of labor income taxes and excise taxes).
281 See Diamond, note 279, at 342 (noting "the incentive to create new tax-planning schemes to avoid the flat tax/X tax would be greater at the margin under a full repeal of the income tax system").
282 See note 67 and accompanying text.
283 See Banks & Diamond, note 234, at 570-71; Diamond & Saez, note 182, at 181.
sumption tax (like an X-tax) would not generate any instrument-shifting distortions. Yet this claim is almost certainly mistaken. This Section argues that any plausible real world implementation of an X-tax would almost certainly generate significant instrument-shifting distortions as compared to a supplementary capital income tax.

For example, consider a taxpayer establishing a closely-held business entity for which the taxpayer would then work as an employee. X-tax proponents acknowledge that it is difficult for any tax system to police the line between salary payments, on the one hand, and dividends and other financial payments made to business owners, on the other hand. Nevertheless, many X-tax proponents have argued that, because any business-level earnings would be subject to the VAT component of the X-tax, business owners would have no incentive to recharacterize their salaries as dividends so long as the tax rate of the VAT component of the X-tax were the same as that applied to salaries. Yet this argument ignores the possibility of business taxpayers using tax-gaming techniques to reduce their VAT liabilities and then making payments to owners in the form of dividends instead of salaries. In this fashion, individual taxpayers could transform their X-tax liabilities into capital income tax liabilities. In the absence of a supplementary capital income tax, then, to the extent that individual taxpayers who own businesses could both circumvent the business-level VAT liability and then characterize payments received from the business as dividends, earnings attributed at the business level would go untaxed. In contrast, incorporating a supplementary capital income tax would make these earnings taxed at the rates of that tax.

Arguably, an X-tax perhaps might generate far less instrument-shifting distortions than does the current U.S. income tax. But there can be no doubt that business taxpayers would have ample opportunity to use tax-gaming responses to reduce the effective rates of an X-tax below the statutory rates. It is then virtually certain that some taxpayers would seek to characterize what theoretically might be thought of as labor income as dividends or as some other form of financial payments from investing in businesses. Consequently, an X-tax would almost certainly generate some amount of instrument-shift-

284 See Bankman & Weisbach, Ideal Consumption Tax, note 13, at 1422-28; Carroll & Viard, note 24, at 74.
285 Carroll & Viard, note 24, at 74.
286 Id. Hence, X-tax advocates argue that the same tax rate should be set for the VAT component of the X-tax as for the salary income of the highest-income individual taxpayers.
287 See Bankman & Schier, note 32, at 246-71 (discussing tax avoidance techniques and tax planning opportunities under the flat tax/X-tax).
288 See id.
ing distortions as compared to a supplementary capital income tax, and this places weight in favor of combining an X-tax with some form of supplementary capital income tax so as to positively tax capital income to at least some extent.289

In sum, an X-tax would almost certainly generate both single-instrument and instrument-shifting distortions as compared to a supplementary capital income tax, and combining an X-tax with a capital income tax should thus reduce overall distortionary costs as compared to levying only an X-tax. Moreover, beyond the specific tax-gaming techniques discussed above, as Bankman and Schler explain: "Generally it is the specific statutory language that creates loopholes. The real test comes only after the drafting is complete. . . . The biggest dangers of a flat tax/Xtax are the flaws not yet identified, or even existing until the specific statutory language is in place."290 Thus, any plausible implementation of an X-tax (or any other progressive consumption tax) would almost certainly leave numerous openings for taxpayers to exploit through tax-gaming responses. It is difficult to predict precisely how taxpayers might respond to a large-scale tax reform before that reform has been implemented, but there is strong reason to infer that at least some of the tax-reduction techniques whereby taxpayers would reduce their X-tax liabilities would constitute single-instrument or instrument-shifting distortions as compared to a supplementary capital income tax.

The remaining consideration is overhead costs. For low- and moderate-income taxpayers, the advantages of taxing capital income from reducing overall distortionary costs might well be overpowered by the disadvantages from increasing overhead costs. But I doubt that this would be true with respect to the top portion of the best-off taxpayers. As discussed earlier, marginal overhead costs are largely a function of the number of taxpayers charged with compliance and remittance obligations, and prior studies suggest that most of these costs result from the paperwork and reporting obligations imposed on taxpayers generally, rather than the sorts of costs that would be primarily associated with the best-off taxpayers.291 For developed country governments seeking to raise substantial revenues from the best-off taxpayers, then, I tentatively infer that the reduction in overall distortionary costs that could be achieved from combining an X-tax with a supplementary capital income tax would greatly overpower any possible increase in overhead costs, at least with respect to the top portion of the best-off taxpayers.

289 See notes 278-82 and accompanying text.
290 Bankman & Schler, note 32, at 247.
291 See notes 220-22 and accompanying text.
It thus might be optimal to build a substantial exemption into the supplementary capital income tax so that it would apply only for the highest-income taxpayers. But, at a minimum, it seems probable that an X-tax should be combined with some form of a supplementary capital income tax—that it is not optimal to forgo taxing capital income all together.

The analysis of the PET is very similar. Many of the techniques that taxpayers currently use to reduce their income tax liabilities presumably would remain available under the PET, as the PET would tax labor income in essentially the same fashion as the current U.S. income tax. Consequently, techniques such as inflating deductions or generating artificial losses generally should operate as single-instrument distortions for a PET as compared to a supplementary capital income tax.292 Remember that, as compared to a PET plus a supplementary capital income tax, a pure PET would need to levy higher statutory tax rates on labor income.293 The tax benefit from techniques such as inflating deductions thus would be larger under a pure PET as compared to a PET plus a supplementary capital income tax.294 Consequently, many of the tax-gaming techniques through which taxpayers would seek to reduce their PET liabilities should function as single-instrument distortions as compared to a supplementary capital income tax. For this reason, in light of the tax-smoothing principle, minimizing the costs from single-instrument distortions would require levying both a PET and a supplementary capital income tax.295

Additionally, it seems almost certain to me that a PET would generate significant instrument-shifting distortions as compared to a supplementary capital income tax. I expect that taxpayers would devise creative techniques for disguising consumption-related expenditures as investment expenditures for which deductions could be taken against PET liabilities.296 It is difficult to predict what specific techniques of this sort might be successful in the absence of a detailed set

292 See Gamage, note 5, at 36-37 (discussing analogous techniques).
293 See note 272 and accompanying text.
294 Techniques such as inflating deductions should always reduce PET liabilities more than liabilities under the add-on capital income tax, because the inflated deductions would directly lower PET liabilities and would only indirectly affect capital income tax liabilities. See Gamage, note 5, at 43-44 (discussing analogous techniques).
295 See note 282 and accompanying text.
296 For instance, taxpayers might "invest" in assets that offer investment incentives such as fancy stockholder retreats. In theory, investment incentives of this sort should be taxable, but I doubt that they would be in practice. Relatedly, taxpayers might devise ways to "invest" in real estate that they live in or vacation in or in other physical assets that they make use of. For example, would a Picasso painting purchased partially in the hopes of its increasing in value constitute consumption or investment? For these reasons, implementing a PET would require drawing lines between true investments and consumption-related "investments," and it seems rather unlikely that these lines could be drawn perfectly.
of rules for how the PET would be implemented. But I find it implausible to think that a government could implement a PET without leaving openings through which taxpayers could disguise at least some consumption-related expenditures as deductible “investments.” To the extent so, the PET would generate at least some amount of instrument-shifting distortions as compared to a supplementary capital income tax.

For the same reasons discussed previously with regard to the X-tax, I tentatively infer that any increased overhead costs that might be generated by combining a PET with a supplementary capital income tax would be more than overpowered by the reduction in distortionary costs, at least with respect to the highest-income taxpayers. Of course, the existing literature does not provide conclusive empirical evidence on these questions. Nevertheless, considering that capital income is highly concentrated amongst the best-off taxpayers, and that these best-off taxpayers have historically been rather successful at developing tax-gaming responses to reduce their tax liabilities, I think it reasonable to infer that it would be optimal to supplement progressive consumption tax proposals with some form of capital income taxation.

In any case, considering the implications of tax-gaming responses, the double-distortion arguments for not taxing capital income simply do not hold. Without better information about the key empirical parameters, it is difficult to predict whether the optimal level of capital income taxation should be small or substantial. But it seems highly probable that capital income should be positively taxed at least to some degree.

3. *The Overall Case for Taxing Capital Income and Implications for Fundamental Tax Reform*

Beyond the discussion above, there is a vast literature analyzing a variety of considerations that potentially might be relevant for determining the optimal level of capital income taxation. I hope to further discuss how some of these considerations might interact with this Article’s analysis in future work. Nevertheless, so long as a labor income tax or a progressive consumption tax would generate either single-instrument or instrument-shifting distortions as compared to a

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297 See note 290 and accompanying text.
298 Additionally, taxpayers might also devise techniques for using their accumulated savings to fund consumption without withdrawing those savings in a fashion that would lead to being taxed under the PET. Although PET advocates argue that borrowing should be taxed, I expect that taxpayers would devise techniques for effectively borrowing against their accumulated savings while avoiding the PET’s rules for taxing explicit borrowing.
299 See, e.g., Banks & Diamond, note 234, at 549; Auerbach, note 234, at 28-29.
capital income tax, and so long as any additional overhead costs that would be generated by levying a capital income tax would be overpowered by the reduction in these distortionary costs, none of the additional considerations discussed in the existing literature are likely to defeat this Article's arguments for why it is probably optimal to tax capital income at least to some degree.\textsuperscript{300} Again, many additional considerations may be relevant for answering the questions of determining how to optimally structure a capital income tax and the optimal rates at which capital income should be taxed. But, based on the current empirical literature, there is no convincing reason for inferring that an optimal tax system should only tax labor income or consumption—that capital income should not be taxed. Moreover, for anyone who was already persuaded that capital income should be positively taxed based on the arguments in the prior literature, this Article's analysis implies that the optimal rates at which capital income should be taxed are higher than what might be implied based only on these prior arguments.\textsuperscript{301}

Nevertheless, the conclusion that capital income should be positively taxed does not necessarily support maintaining the rules for taxing capital income under the existing U.S. income tax. Quite plausibly, the combination of a progressive consumption tax and a supplementary capital income tax might do a better job of taxing even

\textsuperscript{300} The primary exception would be if taxing capital income induced sizeable saving-to-spending responses and if savings behavior generated strong positive externalities. As noted earlier, I am skeptical that real world capital income taxes generate large saving-to-spending responses. See notes 239-241 and accompanying text. Moreover, considering the recent environment in which interest rates have been low and macroeconomists have worried about a global savings glut, it seems unlikely that savings behavior generates sufficiently large positive externalities to make it optimal to forgo taxing capital income all together. See Ben S. Bernanke, Governor, Fed. Reserve Sys., The Global Savings Glut and the U.S. Current Account Deficit, Remarks at the Sandbridge Lecture, Va. Assn of Econ. (Mar. 10, 2005), available at http://www.federalreserve.gov/boarddocs/speeches/2005/200503102/.

Another possible exception might be if taxing capital income unavoidably leads to differentially taxing different forms of capital income and if levying only a progressive consumption tax could make it possible to not differentially tax different forms of capital income. However, in light of instrument-shifting distortions and possible techniques through which taxpayers might be able to gain economic benefit from some forms of capital appreciation while circumventing any plausible progressive consumption tax, it seems unlikely to me that a consumption tax could actually eliminate the differential taxation of different forms of capital income. Moreover, to the extent that differential taxation of capital income is an inevitable result of taxing capital income positively, then it should follow that this probably should be minimized by taxing capital income at a low rate, such that balancing this source of distortion against other sources of distortion probably should require positive taxation of capital income to at least some degree, in light of the tax-smoothing principle.

\textsuperscript{301} See notes 258-59 and accompanying text.
capital income. More generally, there is a substantial literature analyzing how the U.S. system for taxing capital income might be reformed. Numerous of these reform possibilities would perhaps be superior to the current U.S. system for taxing capital income. Regardless, considering that capital income is highly concentrated among the best-off taxpayers, and that these best-off taxpayers appear to be able to circumvent both existing labor income and consumption taxes with some ease, taxing capital income is likely to be one of the best options available for supplementing labor income or consumption taxes in order to raise revenue from the best-off taxpayers.

Integrating this Section's analysis with that of the previous Section, there is reason to infer that the United States should probably levy some version of (all of) a VAT, a labor income tax, and a capital income tax. As this Section argued, both a VAT (such as the VAT component of the X-tax) and a labor income tax (or a modified labor income tax, such as a PET) are likely to induce both significant single-instrument and instrument-shifting distortions as compared to a capital income tax. And as the previous Section argued, both a VAT and a labor income tax are likely to induce significant single-instrument responses as compared to each other. It thus seems probable that overall distortionary costs could be significantly reduced by utilizing some version of all three of these forms of taxation. In order to not excessively increase overhead costs, it may be desirable to integrate these three forms of taxation in some fashion, and perhaps to exempt all but the best-off taxpayers from one or two of these forms of taxation. Yet the case for levying some version of all three of these forms of taxation seems fairly strong.

C. Comparing Realization-Based Capital income Taxes and Annual-Valuation-Based Wealth Taxes

Even more so than with measured capital income, measured wealth is highly concentrated among a small group of extremely well-off tax-

302 On this point, it is worth noting McCaffery's argument that the existing U.S. income tax is devolving into a mere wage tax. Edward J. McCaffery, A New Understanding of Tax, 103 Mich. L. Rev. 807, 885-86 (2005).

303 See note 256.

304 Put another way, even if capital income taxes score only mediocre on the criteria of distortionary costs and overhead costs, these tax instruments probably score sufficiently well on the criterion of promoting distribution so as to raise capital income taxes to being among the most promising of candidates for measurements that governments might use as proxies for ability. See notes 256-57 and accompanying text.

305 See, e.g., notes 218-19 and accompanying text.
Moreover, many of these wealthy taxpayers seem to have been able to circumvent substantial portions of existing labor income and capital income taxes, such that the effective tax rates faced by these taxpayers sometimes appear to be lower than for many middle-income taxpayers, at least as calculated with respect to a broad measure of economic income or well-being.307 To cite a well-known example, the billionaire Warren Buffet reports being taxed at a lower effective rate than his secretary.308 And the effective tax rates reported by Buffet are in a sense massively overstated, because these rates are based on realized income and do not account for unrealized capital appreciation.309 Accounting for unrealized capital appreciation, some wealthy taxpayers are taxed at very low effective rates under existing forms of taxation.310


307 See, e.g., Nat’l Econ. Council, The Buffet Rule: A Basic Principle of Tax Fairness 1 (2012), available at http://www.whitehouse.gov/sites/default/files/Buffett_Rule_Report_Fin al.pdf (“Some of the richest Americans pay extraordinarily low tax rates—as they hire lawyers and accountants to take particular advantage of loopholes and tax expenditures. . . Many high-income Americans are paying less in taxes than middle class Americans in taxes.”); Hanna, note 185, at 437-38; Shackelford, note 35, at 127 (explaining how through the use of tax-gaming techniques “the capitalist can transform the income tax into a somewhat voluntary assessment”).

308 Tomoe Murakami Tse, Buffet Slams Tax System Disparities: Speech Raises at Least $1 Million for Clinton Campaign, Wash. Post, June 27, 2007, at D3 (“Last year, Buffet said, he was taxed at 17.7 percent on his taxable income of more than $46 million. His receptionist was taxed at about 30 percent.”). Of course, the primary reason for this may be the lower tax rate applied to capital gains.

309 See Hanna, note 185, at 437-38; David S. Miller, Reducing the Corporate Tax Rate and Income Inequality 8 (Dec. 30, 2014) (unpublished manuscript), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2544048 (“So while Warren Buffett may be the greatest investor the world has ever seen, his vast wealth owes more to the absence of tax than it does to his investing acumen. If Warren Buffett had been subject to tax each year on his economic income, just as wage earners are, he would probably be worth about $9 billion today, or about one-eighth of his current net value of $72.9 billion.”); Gene Steuerle, The President’s Capital Gains Proposals: An Opening for Business Tax Reform?, Tax Vox (Feb. 6, 2015), http://taxvox.taxpolicycenter.org/2015/02/06/presidents-capital-gains-proposals-opening-business-tax-reform/ (“But Buffett doesn’t just pay a modest capital gains tax rate . . . . On his total economic income, including unrealized gains, it’s doubtful that his personal taxes add up to more than 5 percent.”).

310 Unrealized capital appreciation should at least arguably be considered to be a form of economic income, and so the effective tax rates faced by Buffet and many other wealthy taxpayers are extremely low with respect to a broadly defined measure of economic income. For further discussion, see id.; Miller, note 42, at A27 (advocating for the adoption of a mark-to-market system of taxation on the top 0.1% of earners to address the problem of untaxed unrealized capital appreciation); Steuerle, note 309 (“The very wealthy, moreover, tend to realize a fairly small share of their accrued gains and an even smaller share than those who are merely wealthy. It makes sense: the nouveaux riche seldom become wealthy unless they continually reinvest their earnings. And when they want to consume more, they can do so through means other than selling assets, such as borrowing.”).
In light of this reality, for anyone desiring to raise additional revenue from the best-off taxpayers, an annual wealth tax might seem like an obvious solution.³¹¹ Even a wealth tax assessed at a low rate could potentially raise significant revenues from wealthy taxpayers. For instance, Bruce Ackerman and Anne Alstott recently estimated that a 2% annual wealth tax levied on U.S. households owning more than $7.2 million in net assets (the top 0.5% of Americans in 2009) would yield at least $70 billion a year in revenues.³¹²

Nevertheless, there has been little support for annual wealth taxes in the existing academic literature.³¹³ Based on double-distortion models, there has been widespread agreement that annual wealth taxes are essentially equivalent to capital income taxes.³¹⁴ The reason is that both wealth taxes and capital income taxes induce both labor-to-leisure and saving-to-spending distortions. Indeed, under standard assumptions, wealth taxes and capital income taxes generate exactly the same magnitude of labor-to-leisure and saving-to-spending distortions, and so these two forms of taxation are typically viewed as creating equivalent distortionary costs.³¹⁵

Following the dominant view that capital income should not be taxed, the economics-oriented literature thus has generally concluded that wealth should also go untaxed.³¹⁶ A few scholars have ques-

³¹¹ By "wealth tax" I mean a periodic levy assessed on the value of taxpayers' assets. For discussion, see, e.g., Joseph Bankman, Commentary, What Can We Say About a Wealth Tax?, 53 Tax L. Rev. 477, 477-78 (2000). At the U.S. federal level, there might be constitutional impediments to some approaches for how an annual wealth tax might be implemented. But these impediments would not apply to (for instance) state-level wealth taxes. See Roy Ulrich, A Wealth Tax for the States, 75 St. Tax Notes 349, 349 (Feb. 9, 2015).


³¹⁴ See Bankman, note 311, at 486 ("noting the near identity between income and wealth taxes").

³¹⁵ See Kaplow, note 3, at 235-36 ("Although sometimes viewed as a different sort of taxation, wealth taxes are, upon examination, simply a form of capital income taxation" with “[t]he primary difference . . . administrative."); Bankman, note 311, at 486.

³¹⁶ Tyler Cowen, Wealth Taxes: The Future Battleground, N.Y. Times, July 21, 2013, at BU6 ("Historically, economists . . . have generally favored taxes on consumption [over wealth taxes].")
tioned this dominant view to argue in favor of wealth taxes, but even some of these scholars have proposed adopting wealth taxes as a replacement for capital income taxes. In contrast, applying this Article's theoretical framework suggests that governments should perhaps levy some form of both wealth taxes and capital income taxes, at least with respect to the top portion of best-off taxpayers.

Although wealth taxes and capital income taxes may be similar with respect to labor-to-leisure and savings-to-spending responses, these forms of taxation are likely to be significantly different with respect to many tax-gaming responses. If we conceive of capital income taxes as being based on attempts at measuring appreciation, then we might conceive of wealth taxes as being based on attempts at measuring the value of asset holdings. As with comparing forms of taxation based on measurements of inflows, outflows, and appreciation, the base-calculation rules for forms of taxation designed to measure holdings are likely to be rather different from those for forms of taxation designed to measure appreciation. Thus, these two forms of taxation are likely to induce rather different tax-gaming responses.

In other words, it is certainly true that both capital income taxes and wealth taxes are related in that both of these forms of taxation measure taxpayers' savings and investments. Nevertheless, whereas capital income taxes measure the flows of investments (appreciation), wealth taxes measure the stocks of investments (holdings). These measurements tend to be substantially different in practice.

More specific analysis requires being more precise about possible implementations of capital income taxes and wealth taxes. Most real world capital income taxes are based on a realization requirement, whereby tax is only due on sale of appreciated assets or on

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317 See e.g., Schenk, note 312, at 424-25. More generally, the prior scholars who have argued in favor of a wealth tax have not done so on the grounds proposed in this Article—that levying both a wealth tax and a capital income tax would raise revenues from the best-off taxpayers while inducing smaller overall distortionary costs. See, e.g., Bruce Ackerman & Anne Alstott, The Stakeholder Society 94-112 (1999) (arguing for a wealth tax primarily on philosophical grounds related to equality of opportunity).

318 See Subsection III.B.1.

319 From an ex ante perspective, wealth taxes and capital income taxes may seem similar, as the value of asset holdings is largely a function of expected appreciation over time. Yet the real world tax instruments typically referred to as capital income taxes are designed to measure appreciation that has already occurred, not expected future appreciation. Thus, the base-calculation rules for capital income taxes and for wealth taxes are designed with different measurement objectives and are thus likely to be substantially different in practice.

some other realization event.321 There are perhaps other ways to design a capital income tax.322 But to keep the exposition tractable, I focus on comparing annual wealth taxes to realization-based capital income taxes. In any case, according to Deborah Schenk, "it is highly unlikely that any adoptable form of a [capital] income tax would eliminate the realization rule for all capital."323

Accordingly, the most important tax-gaming responses used to circumvent most real world capital income taxes typically involve taking advantage of the realization requirement.324 Indeed, the realization requirement has been called the Achilles' heel of taxing capital income.325 The reason is that the realization requirement creates strong incentives for taxpayers to forgo transactions that would result in the taxation of unrealized capital appreciation. To the extent that taxpayers with unrealized capital appreciation need money to fund consumption or to diversify their investment portfolios, the taxpayers can often borrow against their appreciated assets or otherwise engage in forms of financial arbitrage so as to achieve their economic goals without triggering tax realization.326

In contrast, there is no realization requirement for most wealth taxes. Wealth taxes typically are measured based on the value of assets owned, rather than on the appreciation of assets for which there has been a sale or other market exchange. Thus, the most important tax-gaming responses for wealth taxes typically involve exploiting valuation problems, as it is often difficult to value the components of taxpayers' wealth.327

Valuation problems tend to be less severe for publically traded stock and for similar assets for which there is a robust market that produces regular valuations. Conversely, valuation problems tend to be more severe for assets like land, closely held businesses, and

321 Under the realization requirement, capital income taxes are not assessed when capital assets increase in value over time. Instead, these taxes are only assessed when a taxpayer sells capital assets for a profit or otherwise disposes of appreciated capital assets. See, e.g., IRC § 1001.

322 See note 266. But see Schenk, note 312, at 424 ("The realization requirement essentially makes the tax on capital income avoidable and so far no one has offered an effective stratagem to limit this.").

323 Schenk, note 312, at 428.

324 See id. at 424 ("The realization requirement, which is easily manipulated, makes it possible for the well-advised and wealthy taxpayer at least to defer, and frequently to eliminate, tax on most capital income.").


327 See Bankman, note 311, at 478 ("The downsides to an annual wealth-based tax are the related problems of liquidity and valuation.").
unique items like artwork. Some wealth tax proposals thus would limit the base of the wealth tax to only financial assets that are relatively easy to value. But doing so would create incentives for wealthy taxpayers to substitute away from investing in these easier-to-value taxable assets in favor of investing in harder-to-value assets that would be exempt from wealth taxation. Moreover, even applying a wealth tax to all assets would not fully alleviate these distortionary incentives, as taxpayers could use a variety of techniques for reporting low valuation estimates for their harder-to-value assets to the tax authority, thus making it likely that harder-to-value assets would often be taxed at lower effective rates, and thereby creating incentives for taxpayers to substitute into holding harder-to-value assets.

Consequently, much of the tax-gaming responsiveness to realization-based capital income taxes should largely operate as single-instrument distortions when comparing a realization-based capital income tax to an annual-valuation-based wealth tax, and vice versa. Ultimately, it is difficult to effectively tax the best-off taxpayers under either a wealth tax or a capital income tax. But it is also difficult to effectively tax the best-off taxpayers under labor income taxes, consumption taxes, or any other real world forms of taxation. Because the major tax-gaming techniques for reducing wealth-tax liabilities (valuation games) are substantially different from the major techniques for reducing capital income tax liabilities (realization games), utilizing some version of both of these forms of taxation should have the potential to significantly reduce the overall distortionary costs from tax-gaming responses.

Levying both a capital income tax and a wealth tax might significantly increase overhead costs as compared to utilizing only one of these forms of taxation. Thus, the potential advantages of utilizing both forms of taxation from reducing the distortionary costs from single-instrument responses (and also from reducing instrument-shifting

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328 See Schenk, note 312, at 455 ("One also might consider sacrificing some elements of the wealth tax base to promote ease of valuation. For example, exemptions for extremely hard-to-value items might eliminate controversy, although they would decrease revenue and would distort investment decisions.").

329 See Shackelford, note 35, at 127-29 (describing several techniques to exploit valuation in the context of transfer taxes).

330 See notes 202-04 and accompanying text.

331 Of course, some tax-gaming responses may operate as multi-instrument distortions capable of reducing both wealth and capital income tax liabilities, such as tax-evasion techniques involving hiding capital assets in foreign bank accounts. Nevertheless, in light of the above analysis, there is strong reason for inferring that a considerable portion of the responsiveness to both wealth taxes and capital income taxes represents single-instrument distortions as compared to the other form of taxation.
responses, if there are any\textsuperscript{332}), as adjusted for distributional incidence, must be weighed against the potential for increasing overhead costs. Yet, as discussed previously, overhead costs are largely a function of the number of taxpayers charged with remittance obligations. Accordingly, at least if revenue or distributional needs are high enough, it seems probable that levying both a capital income tax and a wealth tax with respect to the best-off taxpayers should have the potential to reduce distortionary costs in excess of any possible increase to overhead costs.

For these reasons, although we lack the empirical estimates needed to evaluate this conclusion with any certainty, the potential to raise significant revenues and to promote substantial distributional equity through levying a wealth tax even as applied to only the best-off fraction of a percent of taxpayers would seem to support the inference that the potential for reducing distortionary costs through levying a wealth tax probably outweighs the possibility of increasing overhead costs. Moreover, in light of the massive concentration of wealth in many countries,\textsuperscript{333} and the evidence suggesting that wealth concentrations may be increasing over time,\textsuperscript{334} the case for levying a wealth tax may well grow stronger over the coming years.\textsuperscript{335}

IV. Conclusion

I argued above that forms of taxation measuring inflows, outflows, appreciation, and holdings all tend to use rather different base-calculation rules, and that plausible implementations of these forms of taxation tend to induce significantly different tax-gaming distortions. Each of these measurements is correlated with "ability" in that better-off taxpayers tend to have much larger inflows, outflows, appreciation, and holdings as compared to worse-off taxpayers. Therefore, because each of these forms of taxation tends to induce significantly different distortionary responses as compared to the other forms of taxation, each of these measurements should be independently correlated with ability.\textsuperscript{336} Accordingly, in light of the tax-smoothing principle, I infer

\textsuperscript{332} It is unclear to me whether capital income taxes and wealth taxes are likely to induce significant instrument-shifting distortions as compared to each other.

\textsuperscript{333} See notes 250, 306, and accompanying text.

\textsuperscript{334} See Thomas Piketty & Gabriel Zucman, Capital Is Back: Wealth-Income Ratios in Rich Countries 1700-2010, 129 Q.J. Econ. 1255, 1308 (2014) (observing "aggregate wealth has risen from about 200-300% of national income in 1970 to a range of 400-600% today"); see also Tyler Cowen, Average Is Over: Powering America Beyond the Age of the Great Stagnation 4, 229-30 (2013).

\textsuperscript{335} Cowen, note 316.

\textsuperscript{336} In other words, because taxpayers respond to each of these tax instruments in different ways, and because each of these tax instruments measures a different proxy for ability,
that governments probably should adopt some approach for taxing all of labor income, consumption, capital income, and wealth.

These conclusions are somewhat tentative in that we lack quantitative estimates for the marginal overhead costs of implementing these forms of taxation. Also, I have not (in this Article) discussed political economy considerations or other potential complicating factors. Nevertheless, I have argued that it tentatively seems probable that the potential for reducing distortionary costs from levying some version of all of these forms of taxation would overpower the possible increase to overhead costs, at least if the government's revenue and distributional goals are high enough, and at least with respect to the top portion of best-off taxpayers. If others disagree with these inferences, then it is my hope that scholarly debate over the plausible range of the key empirical parameters might help both to refine our assessments of these parameters and to motivate empirical researchers to further study these parameters. At the very least, I believe I have demonstrated that the double-distortion arguments for why governments should primarily rely on only either a labor income tax or a progressive consumption tax are unpersuasive as applied to real world tax policy environments. In contrast to the conclusions of Bankman and Weisbach and numerous other tax scholars, double-distortion reasoning does not support governments forgoing the taxation of capital income and wealth.

Ultimately, much of the art of analyzing fundamental tax reform proposals lies in determining what packages of reforms are worth comparing. I argued that levying some version of a labor income tax, a value-added consumption tax, a capital income tax, and a wealth tax is probably superior to not levying any version of one or more of these forms of taxation. But this analysis only begins the task of com-

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337 See Gamage, note 5, at 50-72.
338 For instance, rather than supplementing the U.S. income tax with a VAT, might it be optimal to instead design a new Alternative Minimum Tax based on measuring expenditures? I expect not. But some approach for integrating an income tax and a VAT might well be superior to levying both as separate tax systems. In this light, Michael Graetz's proposal for combining a VAT with an income tax applied to only the best-off taxpayers seems especially promising as a candidate for further consideration. See note 218 and accompanying text. Tentatively, it strikes me that incorporating an Alternative Minimum Capital Income Tax designed around measuring wealth might be a promising approach for levying a hybrid between a wealth tax and a capital income tax. This approach might help to address the concern of liquidity in designing the wealth tax and also might help to alleviate some of the political opposition to levying a wealth tax.
paring alternative possibilities for implementing or integrating these forms of taxation, or the task of comparing the use of these forms of taxation to other potential alternatives.

In a sense, then, I am proposing that this Article's framework can be applied to analyze fundamental tax reform possibilities through a tournament of competing reform proposals. This Article in no way purports to have discovered the most optimal of all possible tax reforms (that is, the ultimate winner of the tax reform tournament). Instead, I only argued that levying all of a labor income tax, a VAT, a capital income tax, and a wealth tax should advance to round two of this tournament over the first round competitor of not levying any version of one or more of these forms of taxation. I would not be surprised if—in some future round of this metaphorical tournament—the proposal of levying each of these forms of taxation as independent tax systems might lose out to the competitor of some approach for integrating these forms of taxation. Put another way, future scholarship might evaluate how approaches for implementing each of these forms of taxation could be designed and integrated so as to more accurately target the holes in the other forms of taxation.

Were a government to adopt some approach for taxing all of labor income, consumption, capital income, and wealth, should the government then also employ other additional supplementary forms of taxation? The answer is very likely to be yes. There might well be a number of other possible supplementary tax instruments for which the potential for reducing distortionary costs might justify possibly increasing overhead costs, at least if a government's revenue or distributional needs were high enough. Thus, the case for designing at least some legal rules to promote marginal amounts of distributional equity should remain strong even if the United States were to supplement its income tax with both a VAT and an annual wealth tax. Other major tax policy debates that might be fruitfully analyzed using this Article's theoretical framework include the use of corporate income taxes, estate and gift taxes, international tax rules, tariffs, gross receipts taxes, Pigouvian taxes, and many others.

As discussed in the prior Article, for many legal rules, there is no particular reason to expect that adjusting the design of the legal rules to promote marginal amounts of distribution would increase overhead costs. Thus, as long as the tax system continues to generate significant single-instrument distortions as compared to promoting distribution through the design of the legal rules in question, the case for designing the legal rules to promote marginal amounts of distribution should remain strong. To the extent that levying supplementary tax instruments (or otherwise improving the design of the tax system) would reduce the single-instrument distortions generated by the tax system, this would reduce the extent to which it would be optimal to promote distributional equity through the design of the legal rules, but the optimal amount of distribution that should be promoted through the design of the legal rules should remain positive. Gamage, note 5, at 72-84.
This Article’s theoretical framework can also assist in identifying existing forms of taxation that perhaps should be abolished. For instance, I noted earlier that the U.S. AMT relies on very similar base-calculation rules to the regular income tax.\footnote{See note 164 and accompanying text.} Thus, most of the responsiveness to these two forms of taxation likely constitutes multi-instrument distortions as compared to the other form of taxation. Yet the evidence suggests that the AMT generates substantial marginal overhead costs by imposing calculation and reporting obligations on numerous taxpayers.\footnote{Allen H. Lerman & Peter S. Lee, Evaluating the Ability of the Individual Taxpayer Burden Model to Measure Components of Taxpayer Burden: The Alternative Minimum Tax as a Case Study, in Proceedings of the 2004 IRS Research Conference 139, 150-67 (2005), available at http://www.irs.gov/pub/irs-soi/04lerman.pdf.} This Article’s theoretical framework thus does not support maintaining the AMT, at least in its current form.\footnote{Instead of abolishing the AMT, might it be optimal to redesign the AMT based on substantially different base-calculation rules? Perhaps, and thus an interesting question for future research might be to compare levying an AMT based on substantially different base-calculation rules to instead levying multiple separate forms of taxation.}

Beyond applying the theoretical framework as it was developed in this and the prior Article, future scholarship might also evaluate refining or expanding the framework along numerous possible dimensions. For instance, there may be insight to be gleaned from further analyzing the distributional implications of tax-gaming responses, so as to consider how supplementary forms of taxation might be better tailored to focus on raising greater revenues from those taxpayers who are best able to circumvent existing forms of taxation through gaming responses.\footnote{In a sense, I am suggesting that the theoretical framework perhaps could be improved by refining the framework in light of the scholarship on “tagging for ability.” See Gamage, note 5, at 52-53. A key question for such a project would be how to identify observable characteristics of taxpayers that are correlated with the taxpayers’ proclivities to engage in tax-gaming responses. For prior scholarship related to these questions, see David Gamage, A Way Forward for Tax Law and Economics? A Response to Ososky’s “Frictions, Screening, and Tax Law Design,” 62 Buff. L. Rev. 189, 190 (2014); Leigh Ososky, Who’s Naughty and Who’s Nice? Frictions, Screening, and Tax Law Design, 61 Buff. L. Rev. 1057, 1058-59, 1074-1081 (2013).} Another question worthy of further investigation is the extent to which reforming existing tax systems might be a complement or a supplement to levying additional forms of taxation so as to make up for the flaws in the existing tax systems.

Many additional questions might also merit further research. Tax reform is frustratingly complex, reflecting the multitude of ways in which tax systems interact with the modern global economy.\footnote{See e.g., James S. Eustice, Tax Complexity and the Tax Practitioner, 45 Tax L. Rev. 7, 11-13 (1989); Deborah H. Schenk, Simplification for Individual Taxpayers: Problems and Proposals, 45 Tax L. Rev. 121, 123-24 (1989).} Policy relevant scholarship must thus navigate between “the rock” of being...
so abstract as to be irrelevant and "the hard place" of analyzing so much detail as to yield no useful insight.\textsuperscript{345} To better traverse these turbulent waters of tax reform, tax legal scholarship should focus more on the sorts of efficiency costs that the empirical literature suggests may be the most important—specifically, tax-gaming distortions and administrative and compliance costs. Analysis of these factors is the most promising route for how tax legal scholars can inform real world tax policy.

\textsuperscript{345} See notes 169-70 and accompanying text.