

Shifting and other problems with taxable income elasticity: Joel Slemrod's contributions to what we know about taxing ourselves

Wojciech Kopczuk

April 2025

Abstract

This note uses the taxable income elasticity framework to highlight and celebrate Joel Slemrod's contributions to our understanding of the efficiency cost and behavioral consequences of taxation.

1 Introduction

When the literature on the elasticity of taxable income elasticity (ETI) was in its infancy, following the seminal contributions of Feldstein (1995, 1999), Slemrod¹ (1998) quickly identified a number of methodological problems faced by it. Among them, he noted that “(...) some of the increase in individual taxable income after TRA 86 came at the expense of reductions in corporate taxable income as businesses, enticed by the fact that the top individual tax rate was lower than the corporate rate, shifted to pass-through status. Clearly, then, the appropriate focus is the elasticity of the present value of corporate plus individual taxable income.” More than twenty-five years later this message remains important and, I think, not adequately addressing the interactions between different tax bases remains a weakness of this literature. I use the occasion of this forum — the celebration of Joel's long and rich career — to provide some reflections on his contributions to our knowledge about ETI and related topics.

I am, arguably, well-positioned to do so. I received my PhD in 2001 and Joel Slemrod was my PhD adviser. I took his class in my second year of graduate school, effectively stumbling into it without knowing what to expect. He hired me to work for him over the summer and by the time I was leaving Michigan three years later, we had drafts of five joint papers and wrote three more in years that followed. One of them was aptly entitled “The Optimal Elasticity of Taxable Income” (Slemrod and Kopczuk, 2002). My own work on the topic (Kopczuk, 2001, 2005) was heavily influenced by what I learned from Joel and, in fact, was trying to address some of the themes (heterogeneity of behavioral responses and the role of tax base in determining behavioral elasticities) identified in his early note (Slemrod, 1998).

¹From now on: “Joel,” although I debated whether his usual email signature of “js” might be more appropriate.

I will focus on Joel’s contributions that expand the narrow focus of ETI without delving into empirical issues involved in estimating taxable income elasticity itself, although even here the standard reference is his survey, Saez, Slemrod, and Giertz (2012). I start with an exposition of the ETI argument, and then discuss its limitations. I will briefly note the role of distribution, then expand on the aforementioned income shifting point (which, in my view, remains the biggest weakness of the empirical work in this area), and discuss tax evasion and tax arbitrage responses. I will then place the ETI literature more broadly in the context of “optimal tax systems” and link it to burgeoning literature on the marginal value of public funds. In each of these contexts, Joel made major contributions that I highlight. The final section concludes.

2 Why taxable income elasticity?

The basic argument, elucidated by Feldstein (1999) (Joel’s PhD adviser) is simple: the elasticity of taxable income is the sufficient statistic for welfare consequences of changing the *marginal income tax rate*. Broadly, the argument relies on two observations. Income tax liability is $t \cdot I$, where t is the tax rate and I is taxable income. That means that the mechanical effect of a change in t is $\Delta t \cdot I$. By the envelope theorem, this mechanical impact and the marginal utility of income is all one needs to know about the effect of this change on individual welfare. Taxation is also relevant for the government revenue constraint and this is where the response of $t \cdot I$ enters — the full effect is the sum of the mechanical change $\Delta t \cdot I$ and the behavioral change $t \frac{\partial I}{\partial t} \cdot \Delta t$ (which can be re-written in terms of the net-of-tax elasticity of taxable income $\varepsilon = \frac{\partial I}{\partial(1-t)} \frac{1-t}{I}$). The key point is that all the empirical terms that are needed for evaluating both the welfare impact and the revenue consequences of the tax change reflect taxable income and, given that taxable income itself is observable, the only parameter that needs to be estimated is its response to tax rates.

This is a straightforward and, yet, extremely powerful idea. It is, to my knowledge, the original “sufficient statistics” argument that has been subsequently popularized beyond this context by Chetty (2009a). From the practical point of view, it shifts focus from estimating a myriad of behavioral responses to taxation to the question of estimating a single parameter. This parameter characterizes the response of a quantity that is easily observable: after all, “taxable income” is exactly what we see on tax returns. Thinking more about it, shifting the focus to taxable income is an idea that is almost shocking in its simplicity: we are taught to think carefully about individual behavior and, yet, the one thing that we are asked to estimate in order to analyze the first-order questions about the efficiency cost of income taxation is how the tax base responds — the most obvious question (how much less income will people report?), easily grasped and explained to almost everyone.

Digging a bit deeper, the argument is that the exact reason why taxable income responds is irrelevant for welfare analysis. This was, perhaps, the most surprising news at the time: it seems to say that it makes no difference whether reduction in reported income when tax rates increase is driven by labor supply or by tax avoidance. How can that be? Recall, again, the structure of the argument. From the revenue point of view, any loss of tax base is loss of tax revenue, it does

not matter why. There are nuances to it that I will come back to below, but this is it as the first pass. From the welfare point of view, the tax rate only shows up directly somewhere in the budget constraint as $t \cdot I$ in the individual's (or firm's or whoever the agent one wants to consider) problem and in the standard analysis that is it again (i.e., we are not thinking about tax rate influencing welfare through other channels, such as, for example, salience or fairness). It is only the direct effect that feeds into the envelope theorem argument and, so, the effect on welfare is proportional to I .

One can look at it from a different angle by adding a bit more structure. Consider an individual maximizing utility $u(X)$ where X is a vector of goods (including different types of consumption and time-use, as well as subtler aspects of behavior like effort) subject to a general budget constraint $pX \leq F(X) - tI(X, A) - g(X, A)$ where pX is the cost of consumption goods, $F(X)$ is the production function describing real income (perhaps as simple as wL where w is wage and L is an element of X corresponding to labor supply), $I(X, A)$ is taxable income potentially defined in a complex nonlinear fashion, A ("avoidance") is a set of variables that reflect actions that one can take for tax planning, and $g(X, A)$ is the associated cost. Most models of static individual behavior fit into this setup and it should be obvious that despite a plethora of variables that one can adjust (all A s and X s), the envelope argument still reduces the welfare impact to $I(X, A)$.

The key insight that I want to highlight here follows from considering the first-order conditions. In case of tax avoidance, $t \frac{\partial I}{\partial A} - g_A(X, A) = 0$ so that $t = g_A(X, A) / \frac{\partial I}{\partial A}$: the cost of a dollar reduction in taxable income is equal to the marginal tax rate (if A is a vector, this is true for any element of A). This intuition is also true for any element of X even though this is not how we usually think about it. The corresponding way of describing it is as $t = \left(\frac{u_X}{\lambda} - p + F' - g_X \right) / \frac{\partial I}{\partial X}$, where λ is the multiplier on individual budget constraint (or the marginal utility of income). Here, $\frac{u_X}{\lambda} - p + F'$ is the utility cost due to taxation distorting the otherwise optimal allocation and it is further augmented by the interaction with the cost of tax avoidance g_X . The whole expression is the analogue, for decisions represented by X , of the dollar cost of tax avoidance g_A : by adjusting to taxation, taxpayers have to bear a cost. This cost may be due to the pure monetary waste of tax avoidance (g_A) in the case of pure avoidance decisions, or it may be due to the gap between the marginal benefit of consumption ($\frac{u_X}{\lambda}$) and its cost ($p - F' + g_X$). Either way, whatever that economic cost of a reduction in taxable income is, at the optimum it should be set so that it is equal (per dollar of taxable income) to its benefit: tax savings that are measured by the marginal tax rate. It does not matter what exactly the decision is, should it be labor supply, hiring accountants, or donating to kittens, because — on the margin — all decisions have a cost and that cost for tax-induced adjustments is at the optimum equal to the marginal tax rate (see also Slemrod and Yitzhaki, 1996).

A few remarks before I start poking holes in the elasticity of taxable income. This expanded framework explicitly adds tax avoidance. In an early article on this topic, Slemrod (2001) focused on the interactions between labor supply and tax avoidance — his "general model" allows for both to be arguments of the cost of avoidance function $g(\cdot)$, so that higher incomes may facilitate tax avoidance. Then, one can meaningfully consider how the availability and cost of tax avoidance

technology interacts both with income and with the composition of response between “real” (such as labor supply) and avoidance. The literature makes a distinction between tax avoidance (considered legal, even if aggressive) and tax evasion (illegal) — I discuss below why tax evasion requires an adjustment to the ETI framework.

Second, it is still useful to think about different types of responses. Slemrod (1995) postulates distinguishing between three tiers of responses: real behavior (such as labor supply or, more generally, X here), avoidance (A), and re-timing (that we will come back to). These are important for carefully thinking about total revenue consequences and for thinking about any potential spillovers — another set of complications that I discuss in the next section.

Third, the ETI argument is about analyzing welfare impact of *marginal tax rate* changes. Of course, this is not the only possible lever that policy makers can pull in the context of taxation, far from it.

Fourth, one might wonder what $g(X, A)$ really is and whether it should really be considered as exogenously given. Slemrod (1994b) considers precisely that, building on the “Okun’s bucket” metaphor (Okun, 1975): the efficiency cost of taxation is a leak in the bucket that we use to move resources around (via redistributive taxation). What if we could invest in reducing the size of this hole by having a (potentially costly) policy parameter that affects $g(\cdot)$? I will come back to it in Section 4.

3 What is taxable income elasticity missing?

Quite a few important things.

Distribution. ETI is a sufficient statistic for the efficiency cost of income taxation. However, the efficiency cost of taxation is certainly not the only thing of relevance for thinking about income taxation: the primary reason to have income taxes in the first place is to reflect the ability to pay, and consequences of changes in income taxation include both efficiency and distribution. Normatively, this is the question at the heart of the Mirrlees (1971) optimal income tax framework. It is also one of the themes in Joel’s work. For example, Slemrod, Yitzhaki, Mayshar, and Lundholm (1994) consider a two bracket optimal income tax system that allows them to analyze optimal tax rates at the top of the distribution while partially separating it from distortions elsewhere. In our joint work (Kopczuk, Slemrod, and Yitzhaki, 2005), we use the optimal income tax framework to think about welfare consequences due to limited cross-national transfers. Both of these papers were co-authored with Shlomo Yitzhaki — one of Joel’s most frequent collaborators and closest friends and the titan of public finance literature in his own right.² Joel also encouraged me to work on a

²Shlomo passed away in April 2023. In one of my last longer email exchanges with him, he admonished me: “Rumors in Jerusalem say that you intend to participate in a conference in Jerusalem without telling God’s neighbor.” I indeed was coming and I got the best tour guide of Jerusalem that one can get. May his memory be a blessing. Beyond public finance, Shlomo made major contributions to the work on migration, statistics, and econometrics. See Schröder and Silber (2023) for an overview of his work.

closely-related topic of the interaction of redistribution and tax avoidance for my second-year paper in graduate school, which then became my first journal publication (Kopczuk, 2001).

Distribution is not really a limitation of the ETI argument — it is just the other side of the coin that one needs to consider. The objective of the taxable income elasticity was to simplify the understanding of the efficiency cost so that the trade-off is easier to analyze.

Income shifting Recall that the interest in taxable income *elasticity* arises solely due to the government revenue constraint — the envelope argument implies that we do not need to know behavioral responses for evaluating the impact on individual welfare. Let’s write the government revenue (for simplicity, collected from a particular or a representative consumer) as

$$R(t) = t \cdot I(t) + O(t)$$

where O stands for “Other taxes” that reflect all other sources of revenue collected from the same (or representative) individual. This is closer to what we encounter in practice. People do not just pay individual income tax subject to a single rate. Even within personal income tax system, there may be different rates for different types of income. An example here is having a separate rate for capital gains and dividends. Beyond income taxation, there may be corporate taxes; estate, inheritance or wealth taxes; various forms of consumption taxation including excise, sales or VAT, etc. A change in income tax rate t that affects behavior may change tax liability from all these other sources — the dependence of $O(\cdot)$ on t recognizes that. Examples here abound. An individual who chooses to work less may consume less, thereby reducing consumption tax revenue. An owner of a firm subject to corporate taxation may reduce dividend payouts and instead retain income within a firm, potentially boosting corporate tax revenue. Any income, consumption and saving decisions can spill over to net worth and transfer behavior, with the corresponding tax implications.

It quickly becomes clear that the beauty of the elasticity of taxable income framework is tarnished. The effect of the tax rate change on revenue is now $t \frac{\partial I}{\partial t} + O'(t)$: we also need to know what the response of other revenue, $O'(t)$, is. Usually, this information no longer can come from easily (in administrative data) available data sources. Administrative tax data rarely links individual and business information (though see, for example, Love, 2021; Cooper, McClelland, Pearce, Prisinzano, Sullivan, Yagan, Zidar, and Zwick, 2016 for recent advances in the US and Alstadsæter, Jacob, Kopczuk, and Telle, 2025; Bach, Bozio, Guillouzouic, and Malgouyres, 2024 elsewhere), and it is even harder to link it to consumption tax data. Many problems here abound not just in terms of data but also conceptually. One is that taxable income framework focuses on an individual. With the right data, the framework can be naturally extended to owners of closely-held firms, even firms with multiple owners, by apportioning profits of a business to individual shareholders. However, one quickly realizes that there are other stakeholders who may be affected (e.g., workers or other businesses), and questions about incidence may arise (Suárez Serrato and Zidar, 2016; Fuest, Peichl, and Siegloch, 2018; Risch, 2023). In larger firms, there are also questions about separation of ownership and control and, in general, difficulties in tracking all of the owners so that one might

instead want to consider the response of *corporate* taxable income in isolation rather than trying to integrate it with individual income tax treatment (e.g., Kawano and Slemrod, 2016).³ Another issue is the jurisdiction to consider — tax losses to one place may be gains to another, for example due to migration (Bakija and Slemrod, 2004) or smuggling (Goolsbee, Lovenheim, and Slemrod, 2010).

From the onset of this literature, Joel was extremely well-positioned to recognize the importance of these issues. The seminal event for the public finance literature of the late 1980s and beyond was the Tax Reform Act of 1986: a massive tax reform that cut rates and broadened the tax base (Auerbach and Slemrod, 1997), inducing rich variation in incentives that stimulated empirical literature for years to come. However, the reform paid for lower income tax rates by expanding corporate tax base without lowering corporate tax rates, so that business incentives dramatically changed: the corporate tax treatment that used to be the dominant tax approach for businesses suddenly became dominated by the S-corporation tax treatment. Most corporate businesses could elect to have business income subject to the pass-through approach (ie., being taxed as their owners' personal income) instead of being subject to corporate taxation. In practice, these responses were massive (Slemrod, 1995; Gordon and Slemrod, 2000).

Gordon and Slemrod (2000) was published in the edited volume on responses of high-income individuals to taxation, entitled “Does Atlas Shrug?” (Slemrod, 2000) (one of the very few reminders of Ayn Rand in the economics literature). Another chapter in that volume (Goolsbee, 2000a) and related work published elsewhere (Goolsbee, 2000b) pointed out another quantitatively important limitation of the ETI literature: re-timing, the third in Slemrod (1995) hierarchy of behavioral responses. In the dynamic context, the response of revenue should be more appropriately thought of as the response of its present value:

$$PV(R(t)) = \sum_{i=0}^{\infty} \delta^{-i} (t_i \cdot I_i(t) + O_i(t_i))$$

where δ is the discount factor and the horizon is potentially indefinite. Imagine that the reform is implemented at time 1, so that $t_i = t_0 + \Delta$ for all $i > 0$, but that it is announced at time 0. The retiming identified by Goolsbee (2000b) was the short-term response between $t = 0$ and $t = 1$: individuals with control over the timing of their income may find it beneficial to accelerate recognition of income in response to tax increases (and to delay it in response to tax decreases).⁴ Retiming responses are not necessarily limited to the period just around the reform though. Higher tax rates may induce individuals to delay realization of capital gains (at the extreme, to take advantage of step-up in basis),⁵ encourage retention within a business, or shift to tax-deferred

³Another set of issues is due to collective bargaining that might lead to replacing individual-level by group-level responses (Chetty, Friedman, Olsen, and Pistaferri, 2011).

⁴Another early paper of Slemrod (1982) recognized the possibility of tax-driven short-term responses around the year-end.

⁵Joel's early work was at the forefront of studying the effect of taxation on capital gains realizations (Feldstein, Slemrod, and Yitzhaki, 1980) and it is also one of the earliest examples of empirical tax analysis using administrative individual income tax return data.

compensation or accounts.

As a practical matter, the possibility of income shifting across time and across different tax bases creates a headache for research for two reasons. First, while one may still study how taxable income responds, the answer is no longer the sufficient statistic and needs to be supplemented by evidence of other bases. Second, even if one has the data to trace multiple bases over time, what should one study? Taxable income is no longer the only object.

The second question, should one be so lucky to have such data, has a candidate answer. Recall the Slemrod (1998) point quoted in the introduction: “the appropriate focus is the elasticity of the present value of corporate plus individual taxable income.” This argument can be generalized to other bases and, I would argue, it can be further expanded to focus on *revenue* rather than taxable income. This is because taxable income cannot be simply summed up across different bases subject to different tax treatments, while the revenue can. The behavioral response of revenue is, in fact, the reason why we focus on ETI in the first place, so that the response of revenue still reflects the same fundamental response of interest as ETI (though, one may still need to distinguish between mechanical and behavioral responses of revenue).

Tax evasion. Income shifting across different tax bases, when unaccounted for, may be described as a form of spillover — the neat framework of ETI misses impacts that extend beyond it — but the category of “spillovers” is broader than that. Conceptually, one can think of two major categories of spillovers. One is revenue-based spillovers. Income shifting is one example, but another important example is tax evasion. The private implications of tax evasion by a rational taxpayer, including penalties that constitute private cost, fit well within the ETI framework. What does not fit is the revenue consequences of enforcement — penalties are revenue and thus a component of $O(t)$. More broadly, if behavioral response entails higher enforcement cost (paid out of revenue), this is another form of spillover that should be accounted for. The other major type of spillover does not run through revenue but instead through other reasons why private and social benefits of individual actions may depart from each other, such as externalities. One prominent example here are contributions to charity. As Chetty (2009b) points out, in contexts like this, ETI is no longer the sufficient statistic, because we also need to understand the magnitude of the spillover. The magnitude of spillovers is not directly related to taxable income, but rather the particular channels that they reflect and that needs to be measured separately (such as the extent and tax sensitivity of tax evasion or charitable contributions).

Much of Joel’s work has been devoted to understanding the extent and responsiveness of tax evasion. When I was in graduate school, he encouraged us to work on related topics despite the fact that — at the time — his view was that it was hard because one cannot observe either left-hand (evasion) or right-hand (e.g., probability of audits) side variables that one would otherwise want to put into a regression, though there were ingenious ideas how to approach it (eg., Feldman and Slemrod, 2007). Much of this work is summarized in two hugely influential surveys: Slemrod and Yitzhaki (2002) and Slemrod (2019). A testament to Joel’s exquisite taste in research question and foresight is that even otherwise small papers turn out to have lasting influence: for example, bringing

in simple descriptive evidence on distribution of tax evasion based on audits (Johns and Slemrod, 2010) turned out to be the key reference for the recent literature on measuring income inequality. But, even more importantly, he has been at the forefront of the “credibility revolution” (Slemrod and Weber, 2011) in the context of studying tax evasion. A hugely influential paper reporting on the randomized informational enforcement intervention in Minnesota (Slemrod, Blumenthal, and Christian, 2001) became a blueprint for RCTs in the tax enforcement context. Collins, Hoopes, Reck, Sebastiani, and Slemrod (2017) and Johannesen, Langetieg, Reck, Risch, and Slemrod (2020) are more recent contributions that rely on administrative data and tax reforms.

Arbitrage and bunching. The basic ETI-as-the-sufficient-statistic argument works on the margin. A small change in tax rates is supposed to have a small impact on revenue. This argument breaks when the response has arbitrage aspect to it — a change in behavior in response to marginal incentives having discrete revenue consequences. The business organizational form responses around the Tax Reform Act of 1986 fall in this category. More generally, over the last 20 years the literature has embraced empirically observed discontinuities in marginal incentives (kinks) or in the level of tax liability (notches). Saez (2010)⁶ showed how one can use kinks to identify behavioral elasticities (in particular, of taxable income) and a large empirical literature followed. The paper by Slemrod (2013) was an early exposition of the appeal of this empirical approach, and Sallee and Slemrod (2012) and Slemrod, Weber, and Shan (2017) are examples of empirical implementations. However, the idea of using these types of discontinuities in public finance research precedes it by decades with, you guessed, Joel Slemrod at its helm. Some examples are the aforementioned capital gains work (Slemrod, 1982), using discontinuities in tax liability prescribed by tax tables that applied when tax returns used to be filed on paper to identify petty tax evasion (Slemrod, 1985), or our joint work on time discontinuities in estate tax liability and reported timing of death (Kopczuk and Slemrod, 2003).

4 Beyond the ETI

Optimal tax systems. Despite the caveats, the sufficient statistic appeal of ETI is strong: questions about the efficiency cost and optimal design of individual income tax system are central in the literature. Much of the literature takes the concept of income as given and conditions on it to consider questions of the optimal choice of rates. When the distinction between different bases is brought into play, as for example in the context of capital vs labor income taxation, the usual way of framing the question is again as the choice between rates on different bases. This puts aside the variety of other tools that policy makers have and use that include more intricate aspects of base choice, enforcement instruments, investments in tax administration, or aspects of framing of policy. Slemrod (1990) refers to this broader perspective as “optimal tax system” rather than narrower “optimal taxation.” ETI is not a sufficient statistic for such questions. Furthermore, as emphasized by Slemrod (1994b), ETI itself is potentially affected by other instruments or, put differently, it

⁶The paper had been around for over 10 years by the time it was published.

is not a structural parameter. In particular, enforcement policies that influence how easy it is to evade taxes are likely to influence how overall taxable income responds to changes in the tax rate. This argument extends beyond the income tax context — as examples, Bergeron, Tourek, and Weigel (2024) show direct evidence of enforcement affecting tax elasticities in the context of property taxes and Mishra, Subramanian, and Topalova (2008) in the context of tariffs — so that one should be careful about interpreting tax responses as being driven by preferences and non-tax technology alone.

Once you realize that ETI is not a structural parameter, the optimal choice of tax rates interacts with other instruments. In Slemrod and Kopczuk (2002), we analyze the implications of ETI being endogenous to non-tax aspects of policy in the context of optimal linear income taxation with the tax base as an additional instrument, building on models of costly tax base choice by Yitzhaki (1979) and Wilson (1989). One observation is that conditioning on the elasticity (which, in the model, reflects the tax base) may be misleading about the desired direction of reforms: holding the base constant, the optimal choice might be a reduction in progressivity, while a more comprehensive reform that allows the tax base to expand and ETI to fall might instead call for more progressivity (my own work, Kopczuk 2005, provides evidence that ETI depends on the income tax base, formalized as the extent of available deductions). Joel has explored many related themes in his other work. Slemrod and Yitzhaki (1987) consider the optimal choice of enforcement and Keen and Slemrod (2017) analyzed more general investments in administration. Kopczuk and Slemrod (2006) focus on administrative benefits of reliance on firms rather than individuals. The instruments that one might consider are much broader. For example, Reck, Slemrod, and Vatto (2022) and Slemrod, Rehman, and Waseem (2022) analyze public disclosure policies and Collins, Hoopes, Reck, Sebastiani, and Slemrod (2017) analyze information reporting.

Marginal Value of Public Funds. There is a close relationship between the elasticity of taxable income and the concept of the Marginal Value of Public Funds that has been recently popularized by Hendren and Sprung-Keyser (2020). Ostensibly, the focus in this context is on reforms away from the optimum and the policy parameters are not restricted to tax rates — in fact, this is exactly the appeal. These concepts build on the literature about the marginal cost of funds (MCF). The key reference here is Slemrod and Yitzhaki (2001) who developed the analogous concepts for commodity tax rates and investments in public goods. The key intuition for all of these measures is to consider the envelope argument as a way of quantifying benefits (as in the ETI argument) and normalize it with respect to the impact on revenue (the generalization of ETI that allows for accounting for spillovers across different tax bases that I discussed in the context of income shifting). The way to interpret these concepts is as derivatives of welfare with respect to the *revenue* raised by a policy change — this is the key observation in Slemrod and Yitzhaki (2001) that allows for the direct comparison of otherwise separately constructed measures corresponding to different policies, because they all correspond to a dollar change in revenue so that they can be straightforwardly compensated by each other. Another aspect that is shared with the ETI literature is that there is no need to separately measure excess burden. There are alternative approaches, for example Boddway

and Smart (2025), which are more explicit about the distributional aspect of compensation for a policy change.

5 Final words

Thirty years after its origin, I still view the ETI literature as focusing on one of the main question tax economists should be interested in: how to measure the efficiency cost of taxation and do so in a tractable manner. This is just one lens through which one can view Joel’s work, but – I think – a useful one, because of its centrality in the literature. The ETI approach simultaneously simplifies and expands the scope of margins of behavioral response that can be incorporated. Yet, it also quickly runs into problems because of its focus on individual income taxation alone and because it ignores tax compliance and tax administration issues. I did not spend a lot of time talking about empirical work, but this is where I think the direction of tax literature remains in the near future. My own recent interest has been in income shifting (Kopczuk, 2023; Alstadsæter, Jacob, Kopczuk, and Telle, 2025; Kopczuk, Moon, and Smart, 2025) and responses of high-income individuals (Kopczuk, 2024), and some of the more exciting work nowadays studies consumption-within-a-firm (Leite, 2024), a topic that I have found fascinating for a while (Alstadsæter, Kopczuk, and Telle, 2014; Kopczuk and Zwick, 2020). Not surprisingly then, I think that looking into understanding interactions between different tax bases and incorporating rich tax avoidance and evasion margins is where the literature should focus in the near future. Separately, and also influenced by Joel’s work, there has been an explosion of interest in tax policy in developing countries — we have only scratched the surface of what we can learn there and, in particular, we still need to learn how to think in an integrated fashion about contexts where administration and enforcement are of primary importance.⁷

The focus on ETI allowed me to highlight many strands of Joel’s research, but this short note still cannot do full justice to the breadth of Joel’s contributions to economics of taxation. Would you believe that his dissertation was entitled “A General Equilibrium Model of Capital Income Taxation”? This reflected the interests in the profession at the time, but Joel has never been content with looking back. He was an early contributor to and adopter of new methods and directions in the literature. He was there when administrative tax data was just starting to be available (Feldstein, Slemrod, and Yitzhaki, 1980) and over the decades as its use has exploded, when the RCT literature was taking off (Slemrod, Blumenthal, and Christian, 2001), or when the literature on “bunching” was beginning (Slemrod, 2013). He was there when interest in the TRA86 exploded (Auerbach and Slemrod, 1997), when attention to inequality was revived (Slemrod, 1994a), or when work on multinational corporations was in its infancy (Slemrod, 1996).

Most importantly though, he always stayed focused (pretty much exclusively) on tax topics that he viewed as important, even if it took time for the rest of the profession to notice. His extensive work on compliance and enforcement goes back at least four decades (Slemrod, 1985), to

⁷I think they are also of primary importance in developed countries, it is just that we often forget about it because the baseline is so much higher (except in the time of crisis).

the time when most of the economic profession viewed it as a marginal topic. It is very influential now in the U.S., and it is foundational for work on tax policy in developing countries where focus on tax rates alone is obviously incorrect. We cannot all have exquisite taste in research questions that, simultaneously, matches what we find interesting. Joel somehow mastered it — he has been working on tax policy because he found it important and because he genuinely enjoyed the topic, as is clear to anybody who worked with him or anybody who grabbed a copy of Keen and Slemrod (2021).

I cited a lot of people who worked with Joel: another contributor to his success is his willingness to work with others and, in particular, with students. There are still likely hundreds more whom I did not mention and who have been associated as students, visitors or faculty with Joel’s Office of Tax Policy Research (correction: Mary Ceccanese’s, on behalf of Joel). A separate set of his contributions has been directed at the general public. Slemrod and Bakija (2008) has been a readable introduction to taxation issues for non-economists or aspiring economists for the last two decades, Burman and Slemrod (2020) adds to it with even more policy focus, and Keen and Slemrod (2021) shows to the wide audience what us, working on these topics, have always known: thinking about taxes is fun. One of the Amazon reviews for this last book says “My first thought was ‘Not bad for two economists’. But it got better and better.” Amazingly, “it got better and better” is an apt description of Joel’s whole career.

References

- Alstadsæter, Annette, Martin Jacob, Wojciech Kopczuk, and Kjetil Telle.** 2025. “Accounting for Business Income in Measuring Top Income Shares: Integrated Accrual Approach Using Individual and Firm Data from Norway.” *Journal of the European Economic Association*, Forthcoming.
- Alstadsæter, Annette, Wojciech Kopczuk, and Kjetil Telle.** 2014. “Are Closely-Held Firms Tax Shelters?.” *Tax Policy and the Economy* 28 1–32, <http://www.nber.org/papers/w19609>.
- Auerbach, Alan J., and Joel Slemrod.** 1997. “The Economic Effects of the Tax Reform Act of 1986.” *Journal of Economic Literature* 35 (2): 589–632.
- Bach, Laurent, Antoine Bozio, Arthur Guillouzouic, and Clément Malgouyres.** 2024. “Do Billionaires Pay Taxes?.” Paris School of Economics, mimeo.
- Bakija, Jon, and Joel Slemrod.** 2004. “Do the Rich Flee from High Tax States? Evidence from Federal Estate Tax Returns.” Working Paper 10645, National Bureau of Economic Research.
- Bergeron, Augustin, Gabriel Tourek, and Jonathan Weigel.** 2024. “The state capacity ceiling on tax rates: Evidence from Randomized Tax Abatements in the DRC.” *Econometrica* 92 1153–1193.

- Boadway, Robin, and Michael Smart.** 2025. “Distributionally Sensitive Cost-Benefit Analysis.” Working Paper 116982, CESifo, Available at SSRN: <https://ssrn.com/abstract=5160048> or <http://dx.doi.org/10.2139/ssrn.5160048>.
- Burman, Leonard E., and Joel Slemrod.** 2020. *Taxes in America: What Everyone Needs to Know*. New York, NY: Oxford University Press, , 2nd edition.
- Chetty, Raj.** 2009a. “Sufficient Statistics for Welfare Analysis: A Bridge Between Structural and Reduced-Form Methods.” *Annual Review of Economics* 1 451–488. 10.1146/annurev.economics.050708.142910.
- Chetty, Raj.** 2009b. “Is the Taxable Income Elasticity Sufficient to Calculate Deadweight Loss? The Implications of Evasion and Avoidance.” *American Economic Journal: Economic Policy* 1 (2): 31–52.
- Chetty, Raj, John Friedman, Tore Olsen, and Luigi Pistaferri.** 2011. “Adjustment Costs, Firm Responses, and Micro vs. Macro Labor Supply Elasticities: Evidence from Danish Tax Records.” *Quarterly Journal of Economics* 126 (2): 749–804.
- Collins, Brett, Jeffrey Hoopes, Daniel Reck, Michael Sebastiani, and Joel Slemrod.** 2017. “Does Credit-Card Information Reporting Improve Small-Business Tax Compliance?” *Journal of Public Economics* 149 1–19.
- Cooper, Michael, John McClelland, James Pearce, Richard Prisinzano, Joseph Sullivan, Danny Yagan, Owen Zidar, and Eric Zwick.** 2016. “Business in the United States: Who Owns it and How Much Tax Do They Pay?.” *Tax Policy and the Economy* 30 91–128. 10.3386/w21651.
- Feldman, Naomi, and Joel Slemrod.** 2007. “Estimating Tax Noncompliance with Evidence from Unaudited Tax Returns.” *Economic Journal* 117 (518): 327–352.
- Feldstein, Martin S.** 1995. “The Effect of Marginal Tax Rates on Taxable Income: A Panel Study of the 1986 Tax Reform Act.” *Journal of Political Economy* 103 (3): 551–572.
- Feldstein, Martin S.** 1999. “Tax Avoidance and the Deadweight Loss of the Income Tax.” *Review of Economics and Statistics* 4 (81): 674–680.
- Feldstein, Martin, Joel Slemrod, and Shlomo Yitzhaki.** 1980. “The Effects of Taxation on the Selling of Corporate Stock and the Realization of Capital Gains*.” *The Quarterly Journal of Economics* 94 (4): 777–791. 10.2307/1885668.
- Fuest, Clemens, Andreas Peichl, and Sebastian Siegloch.** 2018. “Do Higher Corporate Taxes Reduce Wages? Micro Evidence from Germany.” *American Economic Review* 108 (2): .

- Goolsbee, Austan.** 2000a. “It’s Not About the Money: Why Natural Experiments Don’t Work on the Rich.” In *Does Atlas Shrug? The Economic Consequences of Taxing the Rich*, edited by Slemrod, Joel, New York: Harvard University Press and Russell Sage Foundation.
- Goolsbee, Austan.** 2000b. “What Happens When You Tax the Rich? Evidence from Executive Compensation.” *Journal of Political Economy* 108 (2): 352–378.
- Goolsbee, Austan, Michael F. Lovenheim, and Joel Slemrod.** 2010. “Playing with Fire: Cigarettes, Taxes, and Competition from the Internet.” *American Economic Journal: Economic Policy* 2 (1): 131–154, <http://ezproxy.cul.columbia.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eoh&AN=1080006&site=ehost-live&scope=site>.
- Gordon, Roger H., and Joel Slemrod.** 2000. “Are “Real” Responses to Taxes Simply Income Shifting Between Corporate and Personal Tax Bases?.” In *Does Atlas Shrug? The Economic Consequences of Taxing the Rich*, edited by Slemrod, Joel, New York: Harvard University Press and Russell Sage Foundation.
- Hendren, Nathaniel, and Ben Sprung-Keyser.** 2020. “A Unified Welfare Analysis of Government Policies.” *Quarterly Journal of Economics* 135 (3): 1209–1318, <https://academic.oup.com/qje/article/135/3/1209/5781614>.
- Johannesen, Niels, Patrick Langetieg, Daniel Reck, Max Risch, and Joel Slemrod.** 2020. “Taxing Hidden Wealth: The Consequences of U.S. Enforcement Initiatives on Evasive Foreign Accounts.” *American Economic Journal: Economic Policy* 12 (3): 312–346.
- Johns, Andrew, and Joel Slemrod.** 2010. “The Distribution of Income Tax Noncompliance.” *National Tax Journal* 63 (3): 397–418.
- Kawano, Laura, and Joel Slemrod.** 2016. “How Do Corporate Tax Bases Change When Corporate Tax Rates Change? With Implications for the Tax Rate Elasticity of Corporate Taxable Income.” *International Tax and Public Finance* 23 (3): 401–433. 10.1007/s10797-015-9375-y.
- Keen, Michael, and Joel Slemrod.** 2017. “Optimal Tax Administration.” *Journal of Public Economics* 152 133–142.
- Keen, Michael, and Joel Slemrod.** 2021. *Rebellion, Rascals, and Revenue: Tax Follies and Wisdom Through the Ages*. Princeton, NJ: Princeton University Press.
- Kopczuk, Wojciech.** 2001. “Redistribution when Avoidance Behavior is Heterogeneous.” *Journal of Public Economics* 81 (1): 51–71.
- Kopczuk, Wojciech.** 2005. “Tax Bases, Tax Rates and the Elasticity of Reported Income.” *Journal of Public Economics* 89 (11-12): 2093–2119.

- Kopczuk, Wojciech.** 2023. “The messy boundary between pass-through and corporate taxation.” *Oxford Review of Economic Policy* 39 (3): 451–459.
- Kopczuk, Wojciech.** 2024. “Polish Business Flat Tax and Its Effect on Reported Incomes.” Columbia University, mimeo.
- Kopczuk, Wojciech, Terry S. Moon, and Michael Smart.** 2025. “Business Organizational Forms and Taxation of High-Income Professionals: Evidence from Canadian Doctors.” Columbia, UBC, and Toronto, mimeo.
- Kopczuk, Wojciech, and Joel Slemrod.** 2003. “Dying to Save Taxes: Evidence from Estate Tax Returns on the Death Elasticity.” *Review of Economics and Statistics* 85 (2): 256–265.
- Kopczuk, Wojciech, and Joel Slemrod.** 2006. “Putting Firms into Optimal Tax Theory.” *American Economic Review Papers and Proceedings* 96 (2): 130–134.
- Kopczuk, Wojciech, Joel Slemrod, and Shlomo Yitzhaki.** 2005. “The Limitations of Decentralized World Redistribution: An Optimal Taxation Approach.” *European Economic Review* 49 (4): 1051–79.
- Kopczuk, Wojciech, and Eric Zwick.** 2020. “Business Incomes at the Top.” *Journal of Economic Perspectives* 34 (4): 27–51.
- Leite, David.** 2024. “The Firm as Tax Shelter: Micro Evidence and Aggregate Implications of Consumption Through the Firm.” March, Paris School of Economics, mimeo.
- Love, Michael.** 2021. “Where in the World Does Partnership Income Go? Evidence of a Growing Use of Tax Havens.” working paper. available at <https://ssrn.com/abstract=3985535>, SSRN. 10.2139/ssrn.3985535.
- Mirrlees, James A.** 1971. “An Exploration in the Theory of Optimum Income Taxation.” *Review of Economic Studies* 38 (114): 175–208.
- Mishra, Prachi, Arvind Subramanian, and Petia Topalova.** 2008. “Policies, Enforcement, and Customs Evasion: Evidence from India.” *Journal of Public Economics* 92 (10-11): 1907–1925.
- Okun, Arthur M.** 1975. *Equality and Efficiency: The Big Tradeoff*. Washington, D.C.: The Brookings Institution.
- Reck, Daniel, Joel Slemrod, and Trine Engh Vatto.** 2022. “Public Disclosure of Tax Information: Compliance Tool or Social Network?” *Journal of Public Economics* 212 104708. 10.1016/j.jpubeco.2022.104732.
- Risch, Max W.** 2023. “Does Taxing Business Owners Affect Employees? Evidence from a Change in the Top Marginal Tax Rate.” *Quarterly Journal of Economics* 139 (1): 637–692.

- Saez, Emmanuel.** 2010. “Do Taxpayers Bunch at Kink Points?.” *American Economic Journal: Economic Policy* 2 (3): 180–212, <http://ezproxy.cul.columbia.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eoh&AN=1117837&site=ehost-live&scope=site>.
- Saez, Emmanuel, Joel Slemrod, and Seth H. Giertz.** 2012. “The Elasticity of Taxable Income with Respect to Marginal Tax Rates: A Critical Review.” *Journal of Economic Literature* 50 (1): 3–50.
- Sallee, James M., and Joel Slemrod.** 2012. “Car Notches: Strategic Automaker Responses to Fuel Economy Policy.” *Journal of Public Economics* 96 (11-12): .
- Schröder, Carsten, and Jacques Silber.** 2023. “Shlomo Yitzhaki (1944–2023): In Memoriam.” *Review of Income and Wealth* 69 (3): 801–805. <https://doi.org/10.1111/roiw.12649>.
- Slemrod, Joel.** 1982. “The Effect of Capital Gains Taxation on Year-End Stock Market Behavior.” *National Tax Journal* 35 (1): 69–77.
- Slemrod, Joel.** 1985. “An Empirical Test for Tax Evasion.” *Journal of Public Economics* 67 (2): 232–38.
- Slemrod, Joel.** 1990. “Optimal Taxation and Optimal Tax Systems.” *Journal of Economic Perspectives* 4 (1): 157–78.
- Slemrod, Joel.** ed. 1994a. *Tax Progressivity and Income Inequality*. Cambridge: Cambridge University Press, , <https://doi.org/10.1017/CB09780511571824>.
- Slemrod, Joel.** 1994b. “Fixing the Leak in Okun’s Bucket. Optimal Progressivity When Avoidance Can Be Controlled.” *Journal of Public Economics* 55 (1): 41–51.
- Slemrod, Joel.** 1995. “Income Creation or Income Shifting? Behavioral Responses to the Tax Reform Act of 1986.” *American Economic Review Papers and Proceedings* 85 (2): 175–180.
- Slemrod, Joel.** ed. 1996. *The Taxation of Multinational Corporations*. Boston: Kluwer Academic Publishers, . 10.1007/978-94-009-1818-4.
- Slemrod, Joel.** 1998. “Methodological Issues in Measuring and Interpreting Taxable Income Elasticities.” *National Tax Journal* 51 (4): 773–788.
- Slemrod, Joel.** ed. 2000. *Does Atlas Shrug? The Economic Consequences of Taxing the Rich*. New York: Harvard University Press and Russell Sage Foundation.
- Slemrod, Joel.** 2001. “A General Model of the Behavioral Response to Taxation.” *International Tax and Public Finance* 8 (2): 119–28.
- Slemrod, Joel.** 2013. “Buenas Notches: Lines and Notches in Tax System Design.” *eJournal of Tax Research* 11 (3): 259–283.

- Slemrod, Joel.** 2019. “Tax Compliance and Enforcement.” *Journal of Economic Literature* 57 (4): 904–54. 10.1257/jel.20181437.
- Slemrod, Joel, and Jon Bakija.** 2008. *Taxing Ourselves. A Citizen’s Guide to the Great Debate Over Tax Reform.* Cambridge, Massachussets and London, England: The MIT Press, , 4th edition.
- Slemrod, Joel, Marsha Blumenthal, and Charles Christian.** 2001. “Taxpayer Response to an Increased Probability of Audit: Evidence from a Controlled Experiment in Minnesota.” *Journal of Public Economics* 79 (3): 455–483.
- Slemrod, Joel, and Wojciech Kopczuk.** 2002. “The Optimal Elasticity of Taxable Income.” *Journal of Public Economics* 84 (1): 91–112.
- Slemrod, Joel, Obeid Rehman, and Mazhar Waseem.** 2022. “Do Taxpayers Respond to Public Disclosure and Social Recognition Programs? Evidence from Pakistan.” *Review of Economics and Statistics* 104 (1): 116–132.
- Slemrod, Joel, and Caroline Weber.** 2011. “Evidence of the invisible: toward a credibility revolution in the empirical analysis of tax evasion and the informal economy.” *International Tax and Public Finance* 19 25–53.
- Slemrod, Joel, Caroline Weber, and Hui Shan.** 2017. “The Behavioral Response to Housing Transfer Taxes: Evidence from a Notched Change in D.C. Policy.” *Journal of Urban Economics* 100 137–153.
- Slemrod, Joel, and Shlomo Yitzhaki.** 1987. “The Optimal Size of a Tax Collection Agency.” *Scandinavian Journal of Economics* 89 (2): 183–192, <http://www.jstor.org/stable/3440063>.
- Slemrod, Joel, and Shlomo Yitzhaki.** 1996. “The Cost of Taxation and the Marginal Efficiency Cost of Funds.” *IMF Staff Papers* 43 (1): 172–98.
- Slemrod, Joel, and Shlomo Yitzhaki.** 2001. “Integrating Expenditure and Tax Decisions: The Marginal Cost of Funds and the Marginal Benefit of Projects.” *National Tax Journal* 54 (2): 189–201.
- Slemrod, Joel, and Shlomo Yitzhaki.** 2002. “Tax Avoidance, Evasion and Administration.” In *Handbook of Public Economics*, edited by Auerbach, Alan J., and Martin S. Feldstein Volume 3. Amsterdam; New York: Elsevier/North Holland.
- Slemrod, Joel, Shlomo Yitzhaki, Yoram Mayshar, and Michael Lundholm.** 1994. “The Optimal Two-Bracket Linear Income Tax.” *Journal of Public Economics* 53 (2): 269–90.
- Suárez Serrato, Juan Carlos, and Owen Zidar.** 2016. “Who Benefits from State Corporate Tax Cuts? A Local Labor Market Approach with Heterogeneous Firms.” *American Economic Review* 106 (9): 2582–2624, <https://www.aeaweb.org/articles?id=10.1257/aer.20141702>.

Wilson, John Douglas. 1989. "On the Optimal Tax Base for Commodity Taxation." *American Economic Review* 79 (5): 1196–1206.

Yitzhaki, Shlomo. 1979. "A Note on Optimal Taxation and Administrative Costs." *American Economic Review* 69 (3): 475–480.