National Tax Journal, June 2016, 69 (2), 461–470 http://dx.doi.org/10.17310/ntj.2016.2.08

Book Review

TAX SYSTEMS

by JOEL SLEMROD AND CHRISTIAN GILLITZER

(MIT Press, 2013, London, England, 223 pages)

Michael Keen

Apart from the work of a few mavericks, the literature on the challenges of tax implementation was, until a few years ago, worthy but dull, focused largely on measuring costs of administration (to the government) and of compliance (to taxpayers) and on various embellishments of the Allingham-Sandmo (1972) model of tax evasion. It was also largely disjoint from the literature on optimal taxation (itself by then perhaps also increasingly worthy but dull). All that has now changed. And it has changed largely because of the tenacious enthusiasm of and advocacy by perhaps the most prominent of the mavericks: Joel Slemrod. This book, written jointly with Christian Gillitzer — clearly another in the long line of talented Slemrod students — takes stock of the body of work built on the simple idea of taking seriously the problems of actually collecting taxes, and proselytizes for a research agenda that does so.

That is the manifesto, and it goes under the banner of "tax systems." By this is meant a view of taxation that departs from the assumption of optimal tax models in the Mirrlees tradition that "taxes magically collect themselves" (p. 93) by recognizing the realities that taxpayers are liable to lie, cheat, steal, and find scams of various kinds, that all this (and even being honest) is costly for them, and that it is also costly for governments to try to stop them from doing it.

It is hard to imagine anyone arguing that this is not a proper analytical view to take, and the case for such a perspective was made elegantly and persuasively by Slemrod (1990) some time ago.[1] And it has long been recognized by practitioners (how could they not?), as epitomized in the famous remark of Milka Casanegra de Jantscher, cited by Slemrod and Gillitzer (SG) (p. 11), that "tax administration *is* tax policy."[2] Of course the converse

[1] Mayshar (1991) is another landmark in the development of this perspective.
[2] This observation was made specifically in respect of developing countries, but the point is clearly more general.

Michael Keen, Fiscal Affairs Division, International Monetary Fund, Washington, DC, USA (mkeen@imf.org)

statement is at least as true. Indeed that perhaps is the key point of the systems perspective: policy and administration need to be considered jointly, and at times the distinction is meaningless. But these are hardly objectionable statements, and at this level of generality the intellectual battle for such a perspective was surely won long ago — if indeed there ever was one. The fundamental contribution of the book is less in making the case for this research agenda than in showing how the profession is delivering on it.

I. A QUICK SUMMARY

To do this, the first part of SG sets out key insights from, and the formal structure of, basic optimal tax theory, and the second part reviews the literatures on avoidance and evasion, on costs of compliance and administration, the concept of the elasticity of taxable income (when it is and isn't a sufficient statistic for the welfare impact of a tax rate change), and the various key instruments at the disposal of the tax administration (such as withholding, information reporting, and audit strategies).

Things get more intriguing in part three, where these preliminaries are put to use. Chapter 7 provides the most literal and elegant formalization of the tax systems perspective, viewing policy and administrative choices as simply elements in some vector of tax instruments, $\theta = (\theta_1, ..., \theta_n)$; one instrument might be a rate of tax on labor income, for instance, and another the availability of information from some third party. Individual welfare can then be thought of as some function $V(x(\theta), \theta, R(\theta))$, with these instruments driving the individual's choices x that affect their own welfare, having a direct welfare impact, and also shaping tax revenue R (perhaps net of costs of administration) and hence public spending. Choosing the instruments in θ to maximize welfare, and using the envelope property that the direct welfare impact of induced effects on x can be ignored, the first order conditions imply that the marginal efficiency costs of raising an additional dollar of revenue by raising instrument i, defined as the ratio of the welfare impact of that instrument, $\partial v/\partial \theta_i$, to the revenue it raises, $\partial R/\partial \theta_i$, must equal the marginal value of public spending $\partial v/\partial R$ and thus should be equated across all instruments that are used.

This is a neat encompassing framework, but its substance — and the test of its usefulness — comes from the wide range of contexts and associated interpretations of the parameters that can be captured in this framework. These include, most straightforwardly, the linear income tax problem, in which interpreting θ_i as the marginal tax rate gives the standard result on the role of the taxable income elasticity, while interpreting it as a measure of administrative activity gives the standard result for the optimal size of a tax agency. Other applications developed in the book include the choice of the breadth of the tax base, of the level of investment in honing the accuracy with which incomes are measured for tax purposes, and (informally) an analysis of various issues of line drawing, such as the use of thresholds to exclude small firms from taxation.

The fourth and final part of the book discusses a range of emerging issues, from the potential (for good and bad, in terms of compliance) of changing technologies to the implications (good and bad) of tax havens. It concludes with the modest proselytizing mentioned above.

All this — and much more than was just mentioned — is, as one would expect, nicely done. The book effectively reviews what is now an exploding literature, placing contributions (many only now appearing in the journals) clearly in context, and never reading like a dutiful listing. It may "inevitably overemphasize the contributions of the book's authors" (p. 11), but, given the centrality of those contributions, this is readily forgiven. The writing is clear, and the jaunty tone conveys the authors' obvious enthusiasm. The formalities are concise, focused on model structure and on building intuition from constructively formulated necessary conditions. This leaves many intermediate steps to the reader, and puts much of the book at graduate level. But (and while the caveats are there — for instance, possible discontinuities of administrative costs in the number of taxed commodities) it keeps the book to manageable proportions.

Indeed the book is a (relatively) easy read, not least because of the ample common sense, breadth of knowledge and good judgment it shows, which does at least as much as the formalities to bring home the practical relevance of the perspective. Some of the authors' remarks themselves suggest scope for useful work. They astutely observe, for instance, that "Governments that are inappropriately focused on the explicit costs of administration" — which experience suggests are all too common (not least because of the powerful voice and persuasiveness of tax administrators themselves) — "may be tempted to reduce these costs even if other 'hidden' costs increase by more …" (p. 69). This might lead to the important conjecture that there may be a systematic bias towards tax systems with compliance costs and tax rates that are too high, and perhaps (almost paradoxically, from the vociferous administrators' perspective) tax administrations that are too small.

II. REFLECTIONS

The book aims to bring implementation issues to the fore. So it is reasonable to ask what those actually involved in implementation — tax administrators — can learn from SG, and, more broadly, from the wider perspective and burgeoning literature it embodies. Here the picture is more mixed.

The authors tellingly cite the characterisation of an economist as "someone who, when he finds something that works in practice, wonders if it works in theory" (pp. 96–97). This thought does seem apposite when reading some of the recent contributions on, for instance, the potential usefulness for establishing good compliance of withholding and third party information. The former, for instance, has been used in the United Kingdom since 1697 (over a century even before Addington's income tax cited in the book (p. 94)), and it seems that it was used even before then in what is now the Netherlands. The idea that patterns of remittance — who actually hands over the money to the tax administration — matter is also one with which administrators have long been familiar: it has been a key driving force, not least, behind the remarkable rise over the last 60 years or so of the value added tax in preference to retail sales taxation (the United States, of course, being an increasingly isolated outlier). More generally, and perhaps not surprisingly, tax administrators, while speaking a different language, have long gone beyond a simple Allingham-Sandmo emphasis on manipulating extrinsic motivations to comply, being aware of and doing their best to respond to many of the most subtle issues to which the recent literature has brought renewed interest (such as the role of social norms, and the consequent potential fragility of compliance). In some cases, administrators' approaches in these areas are quite sophisticated, for instance in recognizing the heterogeneity of taxpayer motivations noted by SG (p. 45) (and which the recent work of Dwenger et al. (2015) finds in relation to the church tax in Germany), and in trying to tailor their interventions accordingly; see for instance the "pyramid" of compliance types in Organization for Economic Co-operation and Development (2010).

Tax administrators may thus find much of what economists are talking about when they model implementation to be very familiar territory. At the same time, moreover, they may find that many of the issues at the forefront of their own agenda receive little attention from economists. These issues include, for instance:[3]

1. The appropriate governance structure of tax administrations, including the degree of independence from political intervention. The spread of the semi-autonomous revenue agency, in particular, has been a major development in many lower income countries in recent years — and continues, with some evidence that it has led to significant revenue gains (Ebeke, Mansour, and Graziosi, forthcoming). But the issue is not without relevance for the higher income economies that are implicitly the focus of this book, as is shown by recent experiences in Greece, for example, and perhaps also in the United States;
2. The appropriate partitioning of taxpayers for distinct treatment by the tax administration according to the compliance risks they pose, with the simultaneous design of appropriate tax structures;
3. Managing relations with the major taxpayers, often those with the most complex affairs. The last few years have seen much interest, for instance, in the idea of developing "enhanced relationships" with such taxpayers, a less adversarial framework for interaction to encourage taxpayers to engage in discussions of tax positions that may not be clear-cut, with the thought that both sides may ultimately benefit. Related to this is the question of when it is appropriate to issue advance pricing agreements (APAs) or other rulings, giving taxpayers some assurance of their tax treatment; and
4. The increasing role of tax administrations in paying welfare benefits of various kinds. With the spread of schemes akin to the Earned Income Tax Credit in the United States, an increasing part of their business is now in handing out money rather than collecting it. In New Zealand, for instance, approaching half of what the tax administration does is delivering benefits. Dealing with welfare claimants

[3] Some of these, and the corruption issue taken up later, are mentioned but set aside in SG (p. 72). There are of course many beyond those listed here, on some of which (such as the importance of matching IT reforms to remodeled processes) economists may have little to say.

> requires a quite different business model from collecting taxes, with profound implications, for instance, for the nature of the risks needing to be assessed, the timeliness with which information on taxpayers' circumstances needs to be obtained and processed, and the nature of the taxpayer services that need to be provided.

One might hope that economists would be able to contribute on these and other issues. In some cases, this is perhaps beginning. Work on differential tax treatment by firm size, for instance, is coming closer to understanding partitioning issues — but is still at the stage of rationalizing what administrations do in reality rather than helping them do it (or something else) better (e.g., Dharmapala, Slemrod, and Wilson, 2011; Kanbur and Keen, 2014). One of the most thorny tax design problems in many countries, for instance — intellectually tougher than many that receive far more attention — is the design of small business regimes and cut-off levels in the presence of both a VAT and an income tax, and with multiple options for simplified regimes. In practice, however, economists have had little guidance to offer, and design is largely left to the hunches and experiences of practical administrators. Some other areas have also received attention: De Simone, Sansing, and Seidman (2012) model enhanced relationships, for instance, and the possibility that, since positions disclosed are likely to be ones for which the taxpayer has a strong case, the tax administration gains from a greater ability to focus on undisclosed tax positions;[4] and Becker, Davies, and Jakobs (2015) explore the rationale for and efficiency of APAs. But in several others, one might hope that economists will find more to say than they yet have. It may seem obvious, for example, that economies of scope mean that tax administrations are the right place to administer welfare benefits. But may tax administrators resist this, viewing it as quite a different task (and seeing it in part as a penalty for their success) — certainly as more than a change of sign. What, one might wonder, should be the key considerations in making this organizational choice? The overall impression is thus that the tax systems perspective is, for the moment, more an admonition to economists than it is a source of new insight for administrators.

There are, it should quickly be said, exceptions. The work of Pomeranz (2015), described in SG (p. 50) is a prime example. By sending letters indicating heightened odds of audit to a sample of Chilean VAT payers and identifying (using untreated controls) the compliance responses of their suppliers and customers, she is able to identify improved compliance of the former but not the latter. The implication — very far from obvious — is that the best way to generate "good" chains of VAT compliance is by "working back," focusing on the compliance of those at or near the end of the chain, rather than focusing on imports and (larger) firms early in the production chain. Though of course subject to generalizability concerns, as studies based on country-specific experiments or experiences must be, such results can be of real operational importance. The work of

[4] On experience in the UK, see for instance, Vella, Freedman, and Loomer (2009).

Naritomi (2013) on the impact of lotteries on VAT compliance in Sao Paulo, for instance, will also interest administrators. Such schemes, in which a VAT invoice becomes a lottery ticket, have been used by many countries over the years, the idea being that this encourages customers to demand invoices that can then be used for control purposes. Tax administrators, however, have generally been skeptical of this and other schemes that they tend to regard as "gimmicks," seeing them as detracting from the need for the hard slog of risk-based auditing and other compliance controls. What Naritomi shows is that the scheme in Brazil did indeed seem to have marked effect on retailers' compliance, increasing the tax they remitted by over 20 percent. This makes it hard for tax administrators to say that such schemes simply don't work. What they can say, however, is that the bottom-line revenue gain seems likely to be small: less than one percent of state VAT receipts. This particular gimmick works in the sense of having a significant effect, they may conclude, but is no quick fix for deep-seated compliance problems. So this work too is instructive, informing the grammar of arguments on the administration side.

All this points to the importance of quantification more widely. There has of course been extensive and thoroughly useful work (nicely reviewed, and appropriately caveated, in SG) on quantifying the elasticity of taxable income — the responsiveness, that is, of some tax base to the applicable tax rate. Very much less is known, however, about the administrative analogues: the magnitude, that is, of the various responses needed to apply the analyses here when θ_i is some parameter characterizing administrative actions. In the result referred to above, for instance, the optimal size of a tax agency depends on the elasticity of reported taxable income with respect to its scale — what might be called the "enforcement elasticity of taxable income." Yet almost nothing is known about this — which became a critical issue, but one uniformed by serious analysis, when tax administrations' budgets came under severe pressure in the retrenchment phase of the financial crisis (International Monetary Fund (IMF), 2015). Tax administrations do seem to fairly often include assessments of the rate of return on spending on them in their budget submissions: SG cite (p. 3) the IRS commissioner as testifying that additional spending of $1 would enable it to bring $7.30 more tax revenue. But these estimates, when made, are rarely publicly available, and rarely seem to reflect substantive analysis. Some work has of course been done, a notable example being Plumley (2002) for the United States; IMF (2015) also reports some simple panel regressions, relating VAT compliance gaps in EU member states (gaps, that is, between tax due in principle and actually collected) to spending on tax administrations, from which an aggregate enforcement elasticity can be inferred. Clearly, however, there is much to learn about the empirics of administrative interventions and structural design before we can even begin to put much flesh on ideas of equating marginal efficiency costs across different administrative instruments, and answer such basic questions as whether an additional dollar is best raised by raising tax rates or by investing further in enforcement.

While there is this evident scope to deepen the administrative context of the tax systems perspective, there may also be scope to broaden it. One such direction would be in the incorporation of political economy considerations, which SG (p. 189) rule out by limiting the analysis to "benevolent governments and a consequentialist and welfarist orientation." It is perfectly reasonable to do so, of course, but a fully satisfying tax systems perspective will surely also recognize this dimension as well. Analyzing the optimal breadth of the tax base in terms of balancing traditional efficiency and distributional concerns against those of practical implementation, for instance, is enlightening. However, practical patterns of rate differentiation evidently reflect a strong dose of self-interest from powerful groups: without this it is hard to explain, for instance, the resilience in many countries of energy pricing subsidies that are manifestly dominated by alternative support policies. Perhaps closer to the analytical spirit of the book and literature, questions could naturally be asked about the ways in which the imperfection and costliness of implementation are likely to affect political equilibria. Some hint of this is provided, for instance, by the analysis (in Chapter 9) of how heterogeneity of avoidance behavior may affect the optimal degree of progressivity; this is undertaken in a welfarist setting, but the same question could be asked in more structured political models. Other questions that the broad approach set out in SG could be turned to address include that of how administration and compliance costs may affect the power of interest groups to achieve favored outcomes. As implementation becomes less problematic, for instance, would we expect lobbying by firms for sector-specific tax incentives to become more prominent and effective (because they are easier to enforce) or less effective (because the burdens of dealing with the normal tax regime are lower)?

A second natural line of extension would be in the analysis of corruption and extortion in tax collection — perhaps not a paramount concern in most advanced economies, but still a formidable challenge in much of the rest of the world. One immediate question, for instance, is how the possibility of corruption affects the significance of the elasticity of taxable income; reasoning along the lines of Chetty (2009) suggests that it will not be a sufficient statistic for the welfare implications of tax rate changes if bribes are recognized as (at least to some extent) socially worthwhile transfers rather than unmitigated social cost. And recognizing further that taxes not only do not collect themselves, but are collected by self-interested agents raises issues concerning the design of incentive schemes within tax administrations that theorists have begun to address and which, in the spirit of many of the papers cited in SG, are receiving careful empirical attention.[5] This, surely, is an area in which much more can be done to inform tax administrations that struggle, often not transparently, with internal governance issues and, more generally, are increasingly concerned with issues of performance measurement and management.

III. CONCLUSION

Slemrod and Yitzhaki (2002) ended their landmark article on avoidance, evasion and administration by saying "… it is time to put to rest the claim that [this area] is … understudied" (pp. 1463–1464). Some time later, however, Hasseldine (2010, p. 1168) could still take the view that "… there is still only a relatively small scholarly literature [on] tax administration ..." This dissimilarity no doubt reflects not just differences in

[5] On the theory, see, for instance, Besley and McLaren (1993) and Hindriks, Keen, and Muthoo (1999). On empirics, Khan, Silva, and Ziliak (2001) and Khan, Khawaja, and Olken (2014) examine the impact of alternative incentive schemes for tax officers.

methodology and language between economists and those coming to these issues from a grounding in the realities of tax implementation, but a deeper disconnect between the issues that each sees as central to a meaningful research agenda. Some significant divide does remain, and (as SG stress) much of the theory remains in advance of the empirics. But this book is elegant and persuasive evidence that the gap is narrowing fast, and that public finance is becoming much the better for it.

ACKNOWLEDGMENTS AND DISCLAIMERS

The views expressed herein are those of the author and do not necessarily represent the views of the IMF, its Executive Board, or IMF management.

DISCLOSURES

The author has no financial arrangements that might give rise to conflicts of interest with respect to the research reported in this paper.

REFERENCES

Allingham, Michael, and Agnar Sandmo, 1972. "Income Tax Evasion: A Theoretical Analysis." *Journal of Public Economics* 1 (3–4), 323–338.

Becker, Johannes, Ronald Davies, and Gitte Jakobs, 2015. "The Economics of Advance Pricing Agreements." CESifo Working Paper 5079. CESifo, Munich.

Besley, Timothy, and John McLaren, 1993. "Taxes and Bribery: The Role of Wage Incentives." *Economic Journal* 103 (416), 119–141.

Chetty, Raj, 2009. "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.

De Simone, Lisa, Richard Sansing, and Jeri Seidman, 2012. "When are Enhanced Relationship Tax Compliance Programs Mutually Beneficial?" Working Paper No. 2012-102. Tuck School of Business, Hanover, NH.

Dharmapala, Dhammika, Joel Slemrod, and John Douglas Wilson, 2011. "Tax Policy and the Missing Middle: Optimal Tax Remittance with Firm-Level Administrative Costs." *Journal of Public Economics* 95 (9–10), 1036–1047.

Dwenger, Nadja, Henrik Kleven, Imran Rasul, and Johannes Rincke, 2015. "Extrinsic and Intrinsic Motivations for Tax Compliance: Evidence from a Field Experiment in Germany." Manuscript. Max Planck Institute for Tax Law and Public Finance, Munich, Germany.

Ebeke, Christian, Mario Mansour, and Gregoire Rota Graziosi, forthcoming. "VATs, LTUs, and SARAs: The Power to Tax in Africa." Manuscript. International Monetary Fund, Washington, DC.

Hasseldine, John, 2010. “Commentary.” In James Mirrlees, Stuart Adam, Timothy Besley, Richard Blundell, Stephen Bond, Robert Chote, Malcolm Gammie, Paul Johnson, Gareth Myles, and James Poterba (eds.), *Dimensions of Tax Design,* 1162–1171. Oxford University Press, Oxford, UK.

Hindriks, Jean, Michael Keen, and Abhinay Muthoo, 1999. “Corruption, Extortion, and Evasion.” *Journal of Public Economics* 74 (3), 395–430.

International Monetary Fund, 2015. “Current Challenges in Revenue Mobilization: Improving Tax Compliance.” International Monetary Fund, Washington, DC, https://www.imf.org/external/np/pp/eng/2015/020215a.pdf.

Kahn, Charles M., Emilson C. D. Silva, and James P. Ziliak, 2001. “Performance-based Wages in Tax Collection: The Brazilian Tax Collection Reform and its Effects.” *Economic Journal* 111 (1), 188–205.

Kanbur, Ravi, and Michael Keen, 2014. “Thresholds, Informality, and Partitions of Compliance.” *International Tax and Public Finance* 23 (4), 536–559.

Khan, Adnan Q., Asim I. Khwaja, and Benjamin A. Olken, 2014. “Tax Farming Redux: Experimental Evidence on Performance Pay for Tax Collectors.” NBER Working Paper 20627. National Bureau of Economic Research, Cambridge, MA.

Mayshar, Yoram, 1991. “Taxation with Costly Administration.” *Scandinavian Journal of Economics* 93 (1), 75–88.

Naritomi, Joana, 2013. “Consumers as Tax Auditors.” Manuscript. Harvard University, Cambridge, MA.

Organisation for Economic Co-operation and Development, 2010. “Forum on Tax Administration: SME Compliance Sub-Group. Information Note: Understanding and Influencing Taxpayers’ Compliance Behaviour.” OECD, Paris, France, http://www.oecd.org/tax/administration/46274793.pdf.

Plumley, Alan H., 2002. “The Impact of the IRS on Voluntary Tax Compliance: Preliminary Empirical Results.” Manuscript. U.S. Internal Revenue Service, Washington, DC.

Pomeranz, Dina, 2015. “No Taxation without Information: Deterrence and Self-Enforcement in the Value Added Tax.” *American Economic Review* 105 (8), 2539–2569.

Slemrod, Joel, 1990. “Optimal Taxation and Optimal Tax Systems.” *Journal of Economic Perspectives* 4 (1), 157–178.

Slemrod, Joel, and Christian Gillitzer, 2014. *Tax Systems*. MIT Press, Cambridge, MA.

Slemrod, Joel, and Shlomo Yitzhaki, 2002. “Tax Avoidance, Evasion, and Administration.” In Alan J. Auerbach and Martin Feldstein (eds.), *Handbook of Public Economics, Volume III*, 1423–1470. North Holland, Amsterdam.

Vella, John, Judith Freedman, and Geoffrey Loomer, 2009. “Analyzing the Enhanced Relationship between Corporate Taxpayers and Revenue Authorities: A U.K. Case Study.” *Internal Revenue Service Bulletin*, 103–148. U.S. Internal Revenue Service, Washington, DC.