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Towards Politically Feasible and Welfare-Improving Tax Reforms

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The design of redistributive tax policies is an evergreen in the public discourse. This column proposes a new approach for the political economy analysis of tax policies based on examining the political support for reforms in contrast to the tax systems themselves. Focusing on monotonic tax reforms, it demonstrates that such reforms are only supported by a majority of the population if the voter with median income is among the beneficiaries. It also yields predictions on how sequences of politically feasible reforms should affect marginal taxes: (1) a shift towards lower marginal tax rates, even negative ones, for below median incomes; (2) pronounced progression for close to median incomes; and (3) a shift to higher and higher marginal tax rates for top earners, unless tax rates in the status quo are already over the top of the Laffer curve.

The design of redistributive tax policies is an evergreen in the public discourse. Should high-income households be taxed more heavily? Should low-income households be supported by means of earnings subsidies (e.g. the Earned Income Tax Credit in the US or Prime d'activité in France)? What tax rate should the middle-class face? Whereas normative analyses on these questions have led to a well-developed 'theory of optimal taxation' following the seminal contribution by Mirrlees (1971), the political economy counterpart remains a work-in-progress (see also the review in Blundell and Preston 2019). As a consequence, we lack a systematic understanding of the tension between the tax systems that are optimal and those that are politically feasible.

Developing such an understanding is a difficult task: tax and transfer systems consist of multiple policy instruments (tax rates, tax base, loopholes, etc.). It is therefore difficult to predict the outcome of political competition over tax policies. More technically, with non-linear tax and transfer systems, the policy space is multi-dimensional and there is hence no Condorcet winner, i.e. there is no policy that wins a majority against all conceivable alternatives. This is a concern since major transformations of tax systems occurring in the last decades are hard to reconcile both from a normative perspective and from a political economy perspective. These transformations include: (1) a significant decline in top income tax rates in many OECD countries (Piketty et al. 2011, Kindermann and Krueger 2014, Rubolino and Waldenström 2017); (2) the introduction and subsequent increase of earning subsidies, leading the EITC to be the largest transfer program for low income households in the US; and (3) the introduction of sharp progressivity in the middle of the income distribution which had detrimental implications for work incentives.¹

These developments are puzzling from a political economy perspective. Take the debate on inequality, a prominent topic in OECD countries where concerns about inequality (and its consequences) have become central in political debates (Milanovic 2016). In democratic countries, we might expect rising inequality to be partially offset by an increase in political support for redistribution (Acemoglu et al. 2014). Indeed, this is precisely the prediction of the classical analysis by Meltzer and Richard (1981): higher inequality – as measured by the

gap between average and median income – should lead to an increased political pressure to engage in redistributive taxation.

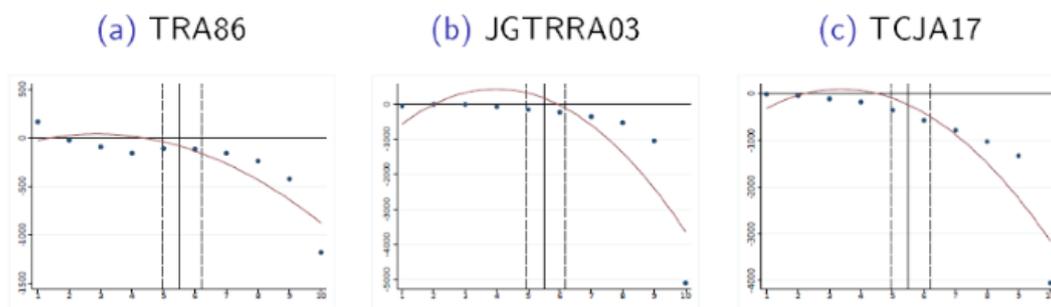
A political analysis of tax reforms

In a recent paper, we propose a new approach for the political economy analysis of tax policies (Bierbrauer et al. 2020). We examine the political support for tax reforms in contrast to tax systems themselves. This approach makes it possible to study the political support for reforms of non-linear tax and transfer systems – even though there is no Condorcet winner in the set of non-linear tax and transfer systems. We define a tax reform to be politically feasible if a majority of individuals prefers the reform over the given status quo.

Looking at reforms over the status quo has two advantages. First, the status quo tax policy is important in practice and political proposals often refer directly to it.² Second, studying a deviation (or ‘perturbation’ in the academic jargon) from an existing tax schedule is what is often done in normative analysis of tax systems. It is therefore possible to simultaneously study the political feasibility of tax reforms and their desirability from a welfare perspective.³

We focus on reforms where changes in the tax burden are a monotonic function of income. Examples of monotonic tax reforms are (1) a reform that involves tax cuts for all incomes, with larger cuts for larger incomes, or (2) a reform that involves higher taxes for everyone, with increases that are a larger for the rich. To justify this approach, we first establish a stylised fact. In practical tax policy, reforms are monotonic: among the 394 tax reforms that took place since 2000 in a panel of 33 OECD countries, 78% were monotonic reforms – and most of the remaining reforms had only minor non-monotonicities. Further, an in-depth microsimulation analysis of all major reforms of federal income taxes in the US since 1964 reveals that reforms were, by and large, monotonic, with monotonic tax cuts – i.e. larger tax cuts for richer taxpayers – being the most prevalent reform type (see Figure 1 for three examples of such reforms).

Figure 1 Major US tax reforms involving tax cuts are increasing with income



Notes: The figure shows the average value of the change in tax liability by decile for three reforms of the US federal personal income tax the Reagan Tax Reform Act of 1986 (TRA 86 the Bush Jobs and Growth Tax Relief Reconciliation Act of 2003 (JGTRRA 03 the Trump Tax Cuts and Jobs Act of 2017 (TCJA 17 The red line represents a quadratic fit Deciles are computed based on pre-tax income without capital gains while tax base includes capital gains All computations are on the individual level. The vertical lines show different locations for the median voter the dashed line to the left imputes non-filers to the tax return data while the dashed line to the right accounts for differential turnout by income. The solid line in the middle represents both the original median in the data as well as the one accounting for both modifications simultaneously

Source: Figure 2 in Bierbrauer et al. (2020), based on NBER TAXSIM and IRS SOI PUF.

Findings

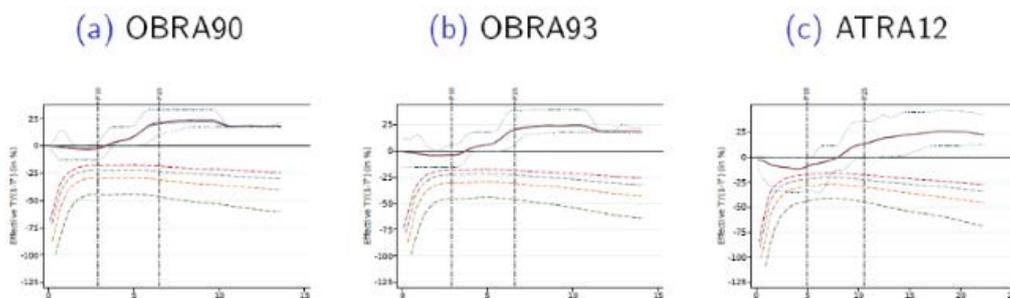
As a first conceptual insight, we prove that a monotonic tax reform is supported by a majority of the population if, and only if, the voter with median income is among the beneficiaries. Hence, political feasibility of a tax reform can be assessed by looking at the gain or loss of the voter with median income.

We moreover check whether this median voter theorem is confirmed in our data. Specifically, we use micro-simulation tools on past US reforms to check whether median voter support and majority support in the population at large are aligned. We find that the alignment is almost perfect.

A second theoretical finding yields predictions on how sequences of politically feasible reforms should affect marginal taxes for the poor, the middle class and the rich. For below median incomes, the prediction is a shift towards lower marginal tax rates, even negative ones. This finding provides a political economy perspective on earning subsidies like the EITC. Politically feasible reforms are also predicted to generate pronounced progression for close to median incomes, and a shift to higher and higher marginal tax rates for top earners, unless tax rates in the status quo are already over the top of the Laffer curve. We present an analysis of the extent to which these predictions are in line with the major tax reforms in the US after WWII. We argue that the tax reforms in the US lowered marginal tax rates for low incomes and increased progression for somewhat higher incomes, but did not yield higher marginal tax rates for high incomes.

This leads to the question of whether (top) tax rates in the status quo were inefficiently high. We turn to this question in the last section of the paper: we derive bounds which determine the range over which reforms towards lower marginal tax rates below the median or towards higher marginal tax rates above the median are politically feasible. We then find that, for empirically plausible values of the elasticity of taxable income, the lower bound was far away from the status quo schedule, indicating that it was politically feasible to lower tax rates for the poor in the US: extensions of the EITC were in the interest of a majority of taxpayers (see Figure 2).

Figure 2 Lower bound for marginal tax rates of US tax reforms involving earning subsidies



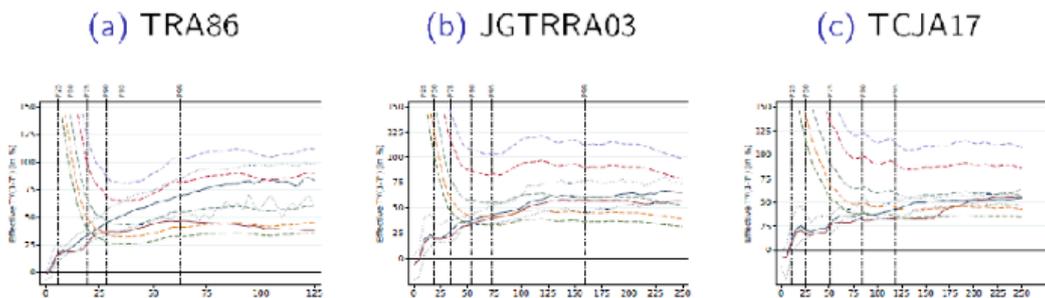
Notes: The figure shows the ratio $T'/(1-T')$ of the effective marginal tax rates (EMTRs) before (solid blue line) and after (solid red line) for three major reforms of the US federal personal income tax involving earning subsidies (EITC): Omnibus Budget Reconciliation Act of 1990 and 1993 (OBRA90 and OBRA93) done by the Bush Senior and Clinton administration respectively, the Obama American Taxpayer Relief Act of 2012 (ATRA12). The dashed lines are the lower Pareto bounds for four different values of the elasticity of taxable income: 5 (cranberry), 4 (teal), 3 (orange) and 2 (green).

Vertical dashed lines show different percentiles of the income distribution.

Source: Figure 9 in Bierbrauer et al. (2020) based on NBER TAXSIM and IRS-SOI PUF.

By contrast, the upper bound was hit for values of the elasticity of taxable income discussed in the empirical literature. Examples reported in Figure 3 include the tax reforms of the Reagan, Bush and Trump presidencies. This provides a possible explanation for why there was a trend towards lower marginal tax rates for the poor, but not towards higher marginal tax rates for the rich.

Figure 3 Laffer bound of US tax reforms involving tax cuts are increasing with income



Notes: The figure shows the ratio $T'/(1-T')$ of the effective marginal tax rates (EMTRs) before (solid blue line) and after (solid red line) for three major reforms of the US federal personal income tax: the Reagan Tax Reform Act of 1986 (TRA86), the Bush Jobs and Growth Tax Relief Reconciliation Act of 2003 (JGTRRA03), the Trump Tax Cuts and Jobs Act of 2017 (TCJA17). The dashed lines are the Laffer Pareto bounds for five different values of the elasticity of taxable income: 0.25 (khaki), 0.4 (lavender), 0.5 (cranberry), 0.75 (teal), 1 (orange) and 1.25 (green). Vertical dashed lines show different percentiles of the income distribution.

Source: Figure 8 in Bierbrauer et al. (2020) based on NBER TAXSIM and IRS-SOI PUF.

Perspectives: A new tool for policymakers and analysts

The current coronavirus crisis will put an unprecedented pressure on public finances. Raising revenues will be a priority once the virus recedes, and political feasibility and fairness issues will be crucial (Sandbu 2020). Tax systems have been redesigned after major historical events and our ability to take these constraints into account will be severely tested. Recent literature contributed to our understanding of what people know and learn about tax policies, and how their support for different policies is determined (Stantcheva 2020). We hope that our approach will contribute to this agenda and open new directions to identify reforms that are appealing from a social welfare perspective and are, moreover, politically feasible.

References

- Acemoglu, D, S Naidu, P Restrepo and J Robinson (2014), "[Can democracy help with inequality?](#)", VoxEU.org, 07 February.
- Bierbrauer, F J, P C Boyer and A Peichl (2020), "Politically feasible reforms of non-linear tax systems", *American Economic Review*.
- Blundell, R and I Preston (2019), "[Principles of tax design, public policy and beyond: The ideas of James Mirrlees, 1936-2018](#)", VoxEU.org, 25 January.
- Jacobs, B, E L Jongen and F Zoutman (2017), "Revealed social preferences of Dutch political parties", *Journal of Public Economics* 156: 81-100.
- Kindermann, F and D Krueger (2014), "High marginal tax rates on the top 1%", VoxEU.org, 15 November.
- Kleven, H J (2021), "Sufficient Statistics Revisited", *Annual Review of Economics* 13.
- Meltzer, A H and S F Richard (1981), "A rational theory of the size of government", *Journal of Political Economy* 89(5): 914-927.
- Milanovic, B (2016), *Global inequality: A new approach for the age of globalization*, Cambridge MA: Harvard University Press.
- Mirrlees, J (1971), "An Exploration in the Theory of Optimum Income Taxation", *Review of Economic Studies* 38(2): 175–208.
- Piketty, T and E Saez (2013), "Optimal Labor Income Taxation", in *Handbook of Public Economics*: 391-474.
- Piketty, T, E Saez and S Stantcheva (2011), "[Taxing the 1%: Why the top tax rate could be over 80%](#)", VoxEU.org, 08 December.
- Sandbu, M (2020), "Tax and spend is the new economic orthodoxy", *Financial Times*, 4 August.
- Rubolino, E and D Waldenström (2017) "Tax reforms and top incomes", VoxEU.org, 13 April.
- Tsyvinski, A and N Werquin (2018), "Compensating welfare losses from economic disruptions", VoxEU.org, 09 July.
- Stantcheva, S (2020), "Understanding Tax Policy: How do people Reason?", CEPR Discussion paper 15216.

Endnotes

1 Evidence of this pattern for the US is presented in Bierbrauer et al. (2020). Similar observations apply to Germany (where the problem is referred to as the '*Mittelstandsbauch*' or 'middle-class belly'), the Netherlands (Jacobs et al. 2017), or France.

2 Three examples of the importance of the status quo illustrate this point. First, in his inaugural address in March 1913, President Woodrow Wilson stated that "We shall deal with our economic system as it is and as it may be modified, not as it might be if we had a clean sheet of paper to write upon; and step by step we shall make it what it should be". More recently, in the campaign manifesto of Donald J. Trump for the US Presidential election of 2016 it is stated that the Trump Plan "will collapse the current seven tax brackets to three brackets" making an explicit reference to the existing tax schedule. Finally, think-tanks and policy analysts usually present the impact of reform proposals on different taxpayers with respect to the status quo (see, for example, the analyses by the Tax and Policy Center reviewed in Bierbrauer et al. 2020).

3 See the reviews in Piketty and Saez (2013) and Kleven (2021). Tsyvinski and Werquin (2018) discuss how tax reforms can offset welfare losses by redistributing the winners' gains when tax instruments are distortionary and wages are endogenous.

4 The Laffer curve after Arthur Laffer (an economist advisor under the Reagan administration) describes the relation between tax rates and tax revenues and postulates the existence of a revenue-maximizing tax rate, referred to as the top of the Laffer curve. Our analysis involves a generalization that applies to non-linear tax and transfer systems. As an aside, a French engineer Jules Dupuit already formalized the insight of Laffer in an academic article entitled "De la mesure de l'utilité des travaux publics" in 1844