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Discussion

Comment on "Positive and normative judgments implicit in U.S. tax policy and the costs of unequal growth and recessions" by Benjamin Lockwood and Matthew Weinzierl

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1. Introduction

In theory, optimal taxes and transfers should be set based on an equity-efficiency tradeoff. On the one hand, progressive taxes provide redistribution and insurance benefits. The value of insurance is captured by the dispersion in social marginal welfare weights, which measure how much society values a one dollar transfer to each agent. In the simplest utilitarian case, marginal social welfare weights (hereafter, MSWWs) on each individual are simply equal to the scaled marginal utility of consumption of that individual. On the other hand, taxes and transfers may also have efficiency costs. They can have detrimental effects on a range of economic activities, such as work (Saez et al., 2012), savings and bequests (Piketty and Saez, 2013, 2012), participation in the labor market (Eissa and Hoynes, 2004), acquisition human capital (Stantcheva, 2014, 2012), or even international migration (Akcigit et al., 2015).

Modern public finance has focused on characterizing and estimating these various efficiency costs of taxation, making use in particular of the growing quality and quantity of administrative data available. By contrast, earlier tax philosophers such as Mill (1863) and Rawls (1971) also put a lot of emphasis on the social welfare function that should be maximized when choosing taxes and transfers. A recent wave of papers has sought to step away from the standard utilitarian framework and to dig deeper into what the social welfare objective is in a positive way (Kuziemko et al., 2015; Zoutman et al., 2013), should be in a normative sense (Weinzierl, 2014), or could be in a theoretical and methodological sense (Saez and Stantcheva, 2016).

Lockwood and Weinzierl (2015) take a novel approach, which consists in using positive, empirical estimates in order to provide normative assessments of economic phenomena, such as recessions and inequality. This approach holds promise if we believe that different economic policies are set according to a unified set of MSWWs, so that learning the weights from one of these policies (e.g., income taxes) will be relevant for making welfare evaluations of other phenomena and other policies. The authors discuss both the promise from this novel approach and its limitations in a nuanced and thoughtful way.

In Section 2, I first present the Lockwood and Weinzierl (2015) methodology and findings. I then discuss some major conceptual questions raised by this thought-provoking paper in Section 3 and some technical issues in Section 4. Finally, in Section 5, I extend the discussion to the possibility of generalized marginal social welfare weights as a useful tool for thinking about policy.

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2. A positive and normative blend and a "trilema"

Lockwood and Weinzierl (2015) propose a new way of linking the positive side of empirical policy evaluation and the normative side of welfare assessments.

To explain their approach in a simple way, I follow the exposition in Saez and Stantcheva (2016). Let individuals be indexed by i and suppose utility exhibits no income effects with:

$$u_i = u(c_i - v_i(z_i)) \tag{1}$$

where $c_i = z_i - T(z_i)$ is disposable income and v_i is the disutility of work function. In the standard utilitarian case, the social welfare function takes the form:

$$SWF = \int_i \omega_i u_i di \tag{2}$$

where ω_i is a fixed Paretoweight on individual i. Let g_i be the marginal social welfare weight (MSWW) on individual i. Under social welfare as in (2), the social marginal welfare weight would be $g_i = \omega_i u_i$.

For the purpose of determining optimal taxes at each income level, the weights need to be aggregated up at each income level starting from the individual level. Let $\overline{G}(z)$ be the (relative) average MSWW for individuals who earn more than z:

$$\overline{G}(z) \equiv \frac{\int_{\{i:z_i \geq z\}} g_i di}{Prob(z_i \geq z) \cdot \int_i g_i di} \tag{3}$$

Let $\overline{g}(z)$ be the corresponding average MSWW *at* earnings level z, with $\overline{G}(z)[1-H(z)] = \int_z^\infty \overline{g}(z')dH(z')$, or, equivalently

$$\overline{g}(z) = -\frac{1}{h(z)} \frac{d(\overline{G}(z) \cdot [1-H(z)])}{dz} \tag{4}$$

From the classic Mirrlees (1971) and Saez (2001) papers, we know that the optimal marginal tax rate at income level z satisfies the formula:

$$T'(z) = \frac{1-\overline{G}(z)}{1-\overline{G}(z) + \alpha(z) \cdot e(z)} \tag{5}$$

with $e(z)$ the average elasticity of earnings z_i with respect to the retention rate $1-T'$ for individuals earning $z_i = z$, and $\alpha(z)$ the local Pareto parameter defined as $zh(z)/[1-H(z)]$.[1]

Lockwood and Weinzierl (2015) suppose that observed taxes and transfers in practice are set according to the formula in (5). Using the observed tax schedule $T(z)$ and empirical income distributions, as well as taking a stand on the value of the taxable income elasticity at each income level, $e(z)$, the formula (5) combined with the definition (4) can be inverted to infer the MSWW $g(z)$ at each income level. The authors perform this inversion using U.S. Congressional Budget Office (CBO) data for market and disposable income and the National Bureau of Economic Research's TAXSIM software for the marginal tax rate schedule. They focus mostly on the period post 1980. However, one of the interesting puzzles they point out arises when extending this analysis back the early 20th century.

In deriving the implied MSWWs from the observed tax system, the authors arrive at what they call a "trilema." Given the pattern of implied social welfare weights in the data, it has to be that either one or several of these conditions hold: (i) The inverse optimum does not yield normatively relevant conclusions, i.e., the implied social welfare weights cannot be embodying stable, reasonable preferences of the public, (ii) the elasticities of taxable income implied are far outside of conventional ranges, or (iii) the marginal social welfare weights from the data are not as traditionally assumed, i.e., MSWWs appear too high at the top of the income distribution relative to the bottom for reasonable utility functions.

More generally, the authors highlight three major discrepancies between the predictions from our optimal tax framework and tax practice: First, MSWWs seem very flat across the income distribution. Second, MSWWs have fluctuated over time at the very top, especially when one takes the long-term view since the early twentieth century. Third, since the 1980s, MSWWs appear to have been higher at the top than optimal tax scholars have typically thought.

3. The challenges of normative assessments using positive MSWWs

I view three main conceptual challenges in this approach of inferring implicit social welfare weights from observed tax policies and then using those weights for making welfare assessments.

[1] When defining $\alpha(z)$, $h(z)$ is defined as the virtual density that would hold at z if the income tax system were linearized at z (Saez, 2001; Piketty and Saez, 2013).