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How to tax the rich: Trends and gradients in top tax responses

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The responsiveness of high-income earners to taxation is a central aspect of tax system design. This column presents patterns in the tax elasticity of top earners for up to 30 countries over a period of 115 years. Tax elasticities vary tremendously over time, space, and income, with a J-shaped pattern emerging over the past century. Tax avoidance behaviour strongly influences the elasticity of the very top earners, while there is less support for the role of labour supply responses across earners.

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Economists and policymakers consider the behavioural response of high-income earners to marginal income taxes to be a key aspect of tax system design. Top earners are important actors in the economy and also pay a disproportionate share of income taxes. Some previous studies have found country-specific evidence indicating that top earners are more sensitive to taxation than other taxpayers (for a survey, see Saez et al. 2012). However, little attention has been paid to differences across countries or smaller groups within the income top or to long-term historical trends.¹

Trends in the top income tax elasticity, 1900-2014

In a new paper (Rubolino and Waldenström 2017), we compile a dataset containing tax rates, top income shares, and control variables for up to 30 industrialised countries and a period of 115 years, 1900–2014, to analyse the evolution of the elasticity of top income shares with respect to the net-of-marginal tax rate across subperiods, countries, country groups, and income levels within the top of the distribution (the full dataset is available on our personal websites).

Figure 1 shows the long-run evolution of the cross-country top percentile elasticity measured within 20-year periods between 1900 and 2014, controlling for country fixed effects and country-specific time trends. A clear J-shaped pattern emerges. The elasticity was 0.11 in the pre-1920

period and then fell, gradually, down to around 0.05 in the sixty years thereafter. Then, in the 1980s, the elasticity increases rapidly up to 0.3 in the most recent period.

Figure 1 The top percentile tax elasticity over the long-run

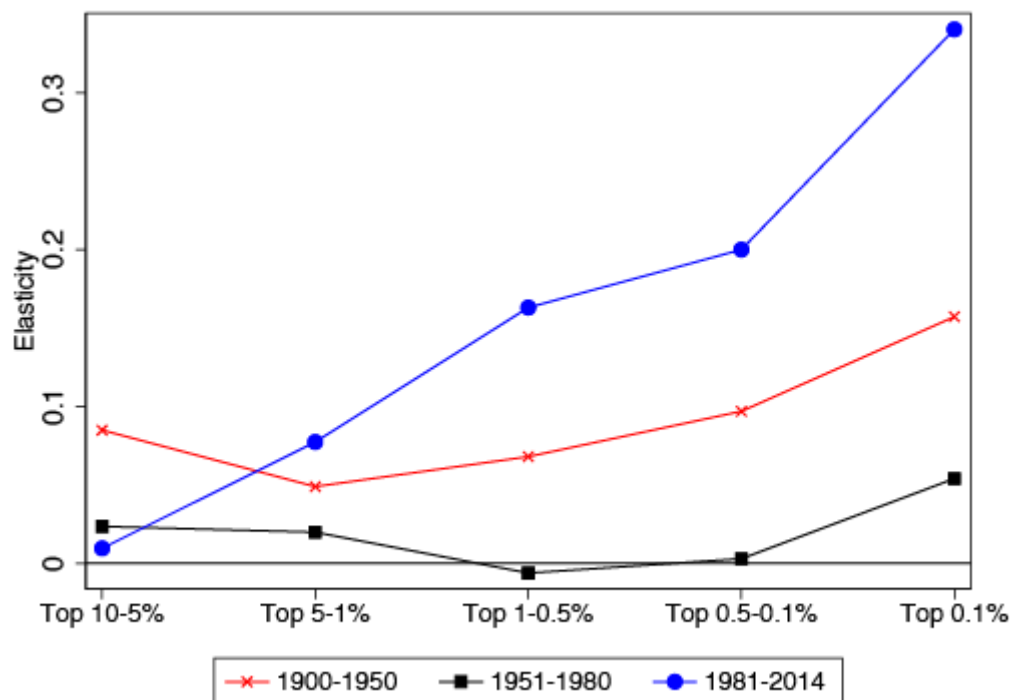


Gradient in the top tax elasticity

Separating between different groups of top income earners is crucial. The previous top income literature (e.g. Atkinson and Piketty 2007, Roine and Waldenström 2015) has shown how the highest-earning groups often dominate the entire top decile's income share.

Figure 2 therefore splits the top income decile into five separate income groups and estimates their tax elasticity separately in three subperiods: 1900–1950, 1951–1980, and 1980–2014. The results show that there is a positive income gradient in the top tax elasticity – the tax responsiveness increases the higher up the income distribution one gets. However, we find that the slope of this gradient varies over time. It was relatively small in the first half of past century, and virtually flat in the first three post-war decades. In the recent period since 1981, it has been steep with a top 0.1 elasticity being more than four times the elasticity in the Top 5-1 group and even more compared to the bottom half (where the elasticity is zero).

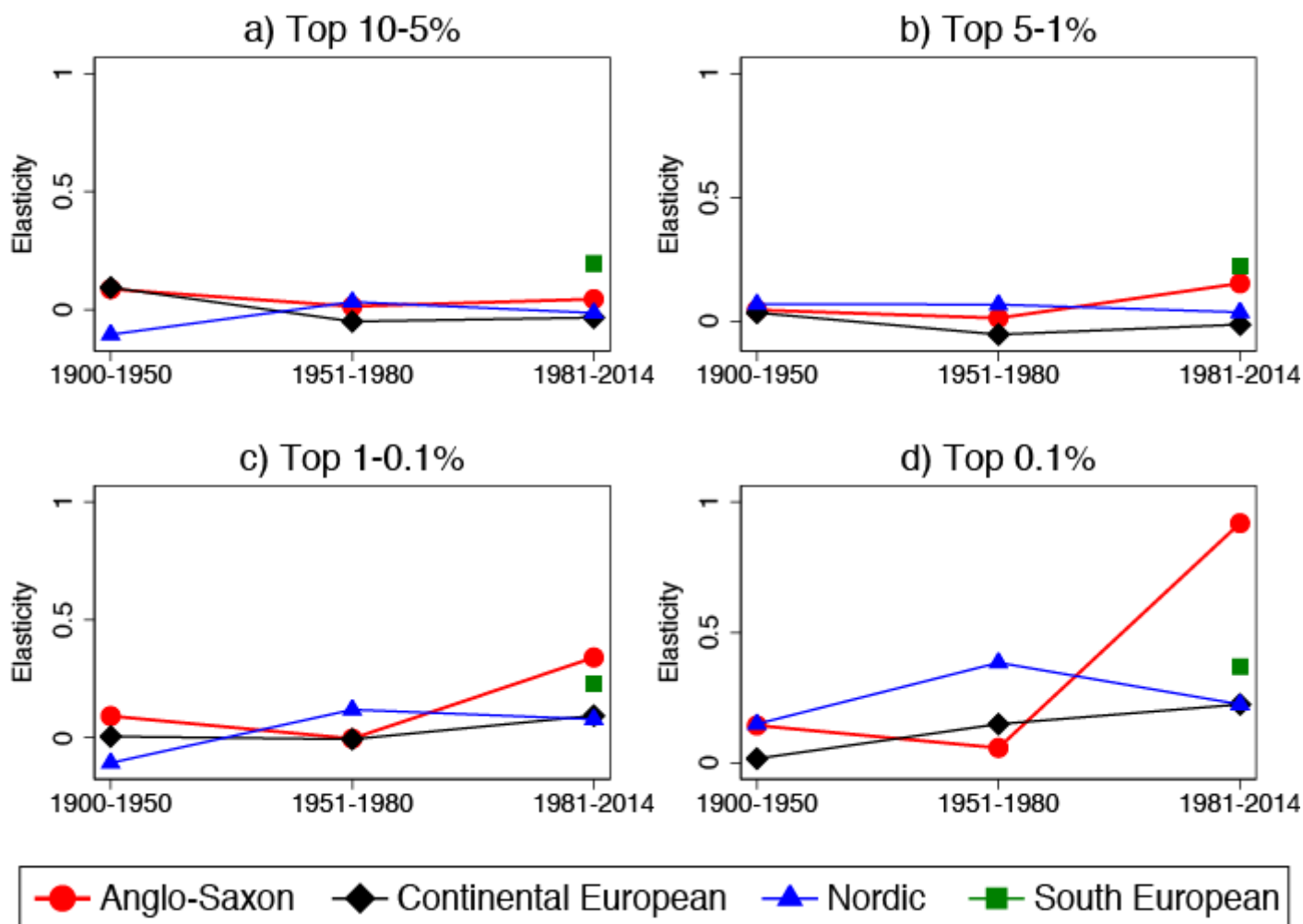
Figure 2 Trends in top tax elasticity over the long-run



Geographical differences in the top tax elasticity

Differences in economic and political institutions across countries may be important for how taxpayers respond to income taxation, e.g. through the workings of specific tax laws allowing tax avoidance or social norms towards working (Piketty et al. 2014). Top income shares have also increased faster in Anglo-Saxon countries than in continental European countries. We examine these geographic and cultural factors by splitting our country sample into four groups – Anglo-Saxon, continental European, Scandinavian, and South European – and estimate top elasticities over time. Figure 3 shows that there are no important differences across these country groups for most periods and top income fractiles. However, there is one notable exception: top income earners in Anglo-Saxon countries appear to have become much more responsive to taxes than top earners in other developed countries during the post-1980 era. This appears to be an important driver of the main results shown above.

Figure 3 Geographical differences in top tax elasticities



Drivers of trends and gradients in the top tax elasticity

Possible explanations for higher tax elasticities among top earners can be found in the public finance literature, some emphasising the role of real (labour supply) responses while others highlight the role of tax avoidance activities (Feldstein 1995, Slemrod 1995, Saez 2017) or bargaining activities (Piketty et al. 2014). Our data are not rich enough to allow for conclusive analyses, but we do offer some tests of these and other hypotheses.

We find that tax avoidance behaviour, in the form of shifting income across differently taxed labour and capital incomes, strongly influences the elasticity of earners in the absolute top but less so on those lower down the top decile. We find less support for ‘real responses’, which we measure using aggregate indicators of economic activity.

The World Wars and major financial crises are found to play a role. Wartime top percentile elasticities fall, but only in belligerent countries, while banking crises and currency crises have the opposite effect. However, the largest influence on tax elasticities comes from including country fixed effects and, quite importantly, country-specific trends. This suggests a large role of institutional and market-related factors that we are still unable to fully identify.

Conclusion

Our study attempts to shed light on the historical and institutional links between income taxation and income inequality. The top income tax elasticity is by no means a constant, structural parameter, but rather one that varies over time and space and also over the level and type of income. Needless to say, a paper with a scope such as ours leaves many stones unturned. We hope that our work will stimulate further research on understanding the nature of tax responses among groups in the top of the income distribution.

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Endnotes

[1] A notable exception is the study by Piketty et al. (2014) of the tax elasticity of the top percentile in a sample of countries since 1960.

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