

## Thesis abstract

# Essays on panel data econometrics and the distribution of income

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A great deal of research has been devoted to the distribution of income over the last century, and it is therefore reasonable to ask what could another dissertation possibly add to the subject? This dissertation will argue that the evolution of inequality over the last three decades, coupled with recent advances in panel econometrics and the collection of data, has made research into the distribution of income as highly pertinent today as any point in the past. The extraordinary shift in the distribution of income to the very top income earners, a phenomenon that has been occurring in a number of advanced economies over the last three decades, has only very recently become an issue of public concern and discussion. This is mostly due to a coordinated effort by a number of researchers around the world to unearth a new wealth of income share data from tax return information. A breakthrough in the availability of data allows this dissertation to examine research questions that were not feasible in the past. While the availability of data has significantly improved in recent times, so has the sophistication of large panel data econometrics (or ‘panel time series’ econometrics). This branch of econometrics has a lot to offer to research into inequality, and this thesis seeks to at least partly exploit the potential of using novel econometric approaches on newly available

data in its pursuit to better understand the causes and effects of inequality on society.

The first chapter of this dissertation seeks to understand why the top 1% income share has risen so drastically in Anglo-Saxon countries (i.e. the United States, the United Kingdom, Australia, New Zealand, and Canada) but not in European countries. It adopts a panel cointegration framework to examine the determinants of top income shares using a wide variety of data sources. The analysis finds that economic openness, the size and ideology of government, the development of financial markets, top marginal tax rates, technological progress, and the strength of unions are all important determinants of top income shares. It demonstrates that the rise in inequality can’t be explained by one or two ‘chief drivers’, but rather a multitude of factors that have been deliberately shaped by government policy in the affected countries, as well as through unavoidable structural changes to the economy. It also shows that the deregulation of labour, trade, and financial markets over the past thirty years has had significant side-effects on the level of equity in the economy.

The second chapter of this dissertation shifts focus to the effects (rather than the source) of rising inequality. For instance, in recent years a crisis of confidence in democratic political institutions has emerged in a

number of advanced economies, particularly following the Global Financial Crisis (GFC). The second chapter investigates the relationship between rising inequality and declining levels of political confidence in developed countries. A theoretical model is developed which argues that the income share of top earners affects confidence through its impact on the prevailing economic institutions. This prediction is tested empirically using multi-level modelling techniques from data provided by the World Values Survey and World Top Incomes Database. The result is a statistically significant negative correlation that is consistent with the chief proposition of the theoretical model. It suggests that one of the consequences of rising top income shares in Anglo-Saxon countries is less trust and confidence in democracy and its institutions. This finding is particularly relevant following the GFC, when alienation and disengagement from the political system worsened in a number of countries.

The third chapter of this dissertation continues this focus by examining the proposition raised by recent research that high inequality is partly responsible for the recent slow recovery in the United States. Rising inequality is thought to worsen recovery times directly through a phenomenon termed ‘demand drag’, and indirectly through its contribution to credit booms. By applying survival analysis techniques on business cycle data from U.S. states over the last seventy five years, the third chapter finds that inequality, fiscal policy, financial market conditions, and consumer credit are all strongly related to recovery speed. The results suggest that high inequality is responsible for approximately half of the recent recovery’s lethargy.

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