Higher interest rates reduce the top one per cent's share of the national income

Following the global financial crisis of 2008, central banks in the advanced economies have resorted to accommodative monetary policy measures in order to prop up their respective economies. Such measures mainly consisted of significant reduction in policy interest rates along with large quantitative easing programmes.

While the macroeconomic effects of such measures on growth and employment have been positive, several concerns have been raised about their potential side effects. In a context already marked by rising income and wealth inequality, the distributional effects of monetary policy have become an increasingly popular topic in policymaking circles, as shown in recent statements by Jay Powell, the chair of the US Federal Reserve Bank, at the Jackson Hole monetary policy symposium.

The interest for such a topic is quite unusual because it is widely accepted that central banks should not be concerned about inequality: they are independent of the political process, and dealing with distributional matters goes beyond their mandate. However, the combination of an ultra-low interest rate environment and large asset purchase programmes is argued to have reduced modest household savings and driven up asset prices, which are mainly held by rich households.

The empirical evidence on the effect of monetary policy on inequality is rapidly growing but remains inconclusive. On the one hand, several studies find that tight monetary conditions increase income and consumption inequality (Coibion et al. 2017 for the U.S.; Mumtaz and Theophilopoulou, 2017 for the U.K.). On the other hand, recent research suggests that loose monetary policy may also produce negative distributional effects (Cloyne et al. 2020 for the U.S. and U.K., Inui et al. 2017 for Japan).

In a recent paper (El Herradi & Leroy, 2020), we study how unexpected changes in monetary policy conditions affect top incomes and particularly the top one per cent richest in 12 advanced economies (Australia, Canada, Denmark, France, Germany, Italy, Japan, the Netherlands, Norway, Sweden, the U.K. and the U.S.) over the period 1920-2016.

To answer our research question, we depart from the existing literature in two important respects. First, we rely on tax-based top income shares from the World Inequality Database (WID), as they allow — unlike survey data — for better coverage of business and capital incomes, which constitute the bulk of the income of the rich. Furthermore, our interest for top incomes and the top 1 per cent in particular stems from the fact that they have largely contributed, since the 1980s, to the rising inequality in the developed world. Second, using the Jordà-Schularick-Taylor Macrohistory Database, our paper features an historical analysis over a century of modern economic history, which has the advantage of dealing with several important events experienced in the developed world.

Our empirical methodology relies on local projections (LPs) *à la* Jordà (2005). The latter generates dynamic responses of top income shares to an exogenous perturbation in the short-term interest rate. To properly assess the causal effect of monetary policy on top income distribution, economists usually refer to the need to identify exogenous monetary policy shocks, i.e. changes in short-term interest rates that are unrelated to economic conditions. In this regard, our identification strategy speaks to the historical context of our study and uses the Mundell-Fleming trilemma to trace out external variations in monetary policy conditions (Jordà et al. 2020). The macroeconomic policy trilemma states that a country cannot simultaneously achieve free capital mobility, a fixed exchange rate and independent monetary policy. In such a case, the country would import its monetary policy from the base country (the US., U.K. or Germany). As a result, policy choices regarding capital mobility, exchange rates and interest rates provide a natural experiment to analyse the effect of monetary policy on top income shares.

Figure 1. Top one per cent LPs to a positive short-term interest rate shock
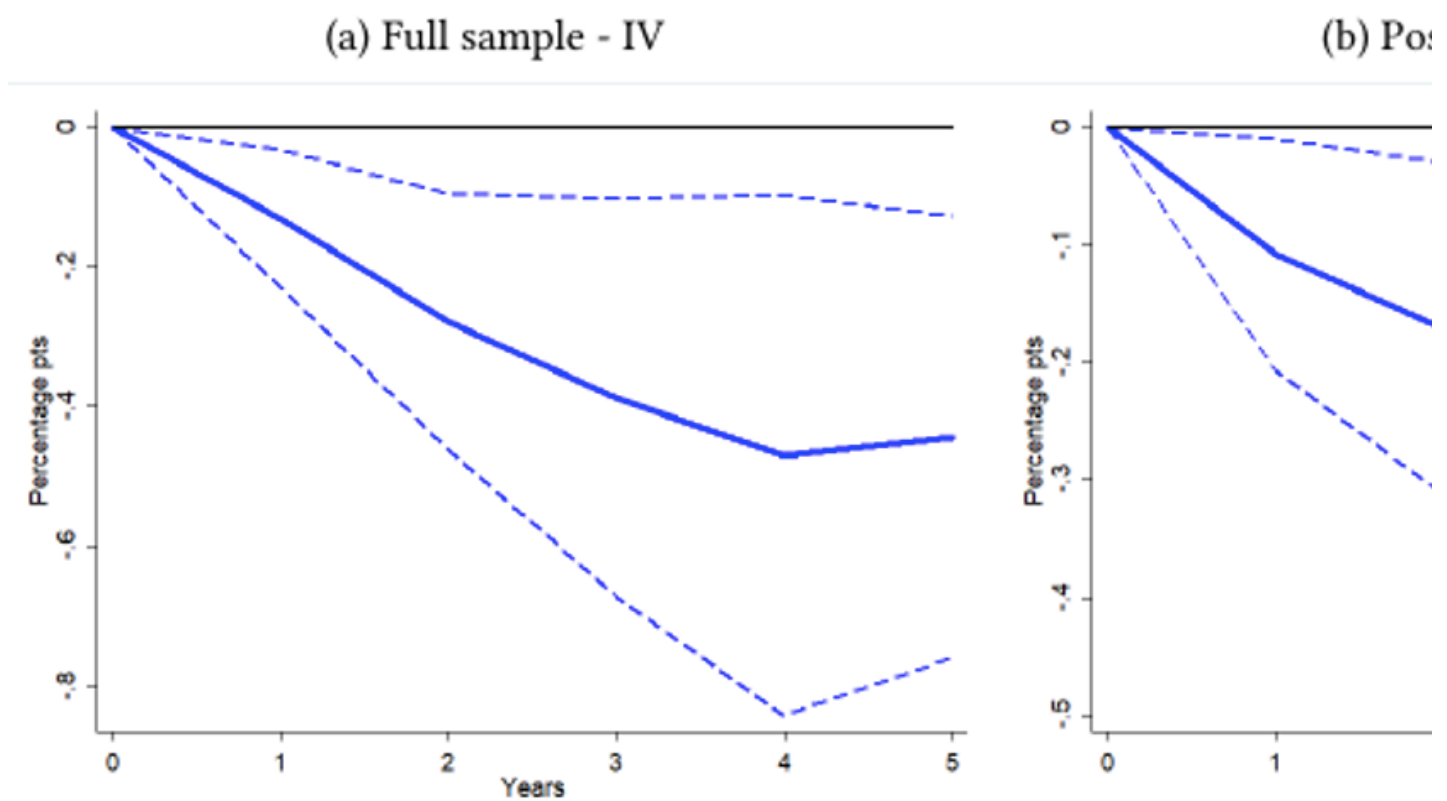
As shown in Figure 1, we find that monetary tightening significantly and durably decreases the share of the national income held by the top one per cent (P1). An exogenous increase of +100 basis points in the short-term interest rate via the instrument (graph (a) on the left) reduces P1 by 0.4 percentage points three years after the shock. The post-WWII sample follows a similar path, but the effect on P1 over a five-year horizon is smaller (graph (b) on the right). Inasmuch as our empirical model is linear, the exact opposite effect holds with respect to monetary easing.

Further, we draw on different distributional measures of the top decile along with standard indicators of income inequality and find that the effects of monetary policy on top incomes are (i) heterogeneous and (ii) not necessarily mirrored over the entire income distribution. First, a positive interest rate shock reduces the shares of national income held by the top 1, 0.1 and 0.01 per cent, while its effect on the bottom 9 per cent of the top decile (which mainly consists of highly salaried workers) is positive. Second, monetary tightening increases the Gini index, meaning that the drop in the top percentile shares is likely to be smaller than the decline in the bottom income shares.

We then exploit the importance of financial assets and capital returns for top income households and demonstrate that the effect of monetary tightening on P1 is arguably channelled via lower (real) asset returns. This is consistent with the income composition channel of Coibion et al. (2017), which assumes that considering the heterogeneity in income sources between households, monetary policy will probably affect the income distribution if it disadvantages some types of income.

Finally, state-dependent effects of interest rate shocks are estimated to study the non-linear effects of monetary policy on top incomes. Specifically, we allow the response of P1 to depend on the regime of a specific variable (i.e., business cycle, the inflation regime, credit and stock return cycles) and find that our results are valid regardless of the state of the economy.

To conclude, we show that monetary policy is not neutral with respect to income distribution and has persistent effects on the top one percent. Therefore, central bankers need to be attentive not only to the aggregate consequences of monetary policy but also to their side effects.

<div align="center">♣♣♣</div>

Notes:

- *This blog post is based on the working paper Monetary policy and the top one percent: Evidence from a century of modern economic history, presented at the European Economic Association's congress, August 2020.*
- *The post expresses the views of its author(s), not the position of LSE Business Review or the London School of Economics.*
- *Featured image by Roberto Júnior on Unsplash*
- *When you leave a comment, you're agreeing to our Comment Policy*

Mehdi El Herradi is a 4th year PhD Fellow at the Aix-Marseille School of Economics (AMSE). His research interest lie in the interactions between finance, monetary policy and income inequality.
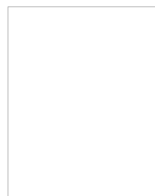
Aurélien Leroy is an assistant professor at the University of Bordeaux. He received a PhD in banking and finance from the University of Orléans. His research lies at the intersection of economics, banking and corporate finance.