

2023

## IARIW–BANK OF ITALY CONFERENCE “CENTRAL BANKS, FINANCIAL MARKETS AND INEQUALITY”

Paper Prepared for the IARIW-Bank of Italy Conference, Naples, Italy, March 29-April 1, 2023

Who Takes the Cake? The Effects of Monetary Policy on Income Inequality in the Euro Area: its  
Class-Specific Impact

Natalia Martín Fuentes

Salvador Pérez Moreno

Elena Bárcena Martín

This paper provides evidence on the heterogeneous impact of monetary policy on the different income classes via stimulating economic activity and hence supporting employment. Throughout this analysis, we focus on the states that originated the Economic and Monetary Union (Austria, Belgium, Finland, France, Germany, Italy, Ireland, Luxembourg, Spain, Portugal, and the Netherlands) over the expansionary stance period before the COVID-19 shock (2008Q4-2019Q4). Among the different channels through which monetary policy affects inequality, this research focuses specifically on the income distribution and therefore provides empirical evidence for the two major transmission channels at play: earnings heterogeneity and income composition channel.

Theoretically, the earnings heterogeneity channel points out that the risk of unemployment is distributed unequally across the population, and it is precisely households at the leftmost part of the income distribution those who usually have higher odds of being or becoming unemployed. Therefore, an expansionary monetary shock able to support employment does not tend to affect the employment situation of all income classes homogeneously. The income composition channel underlines that an expansionary monetary policy shock may exert a differing pressure on the different sources of earnings. This way, its effect on income may be different for those agents who receive a larger fraction of their income from wage earnings (often belonging to lower and lower middle classes), compared to those who receive a larger part of their income from financial asset holdings and business gains (essentially, upper-income households).

In practice, we estimate country-specific Vector Autoregressive models to identify the impact of a monetary easing shock, proxied by an orthogonal change in the Wu and Xia's (2017) shadow

rate equal to minus 100 basis points. This proxy allows us to estimate the joint impact of both conventional and unconventional monetary policy tools deployed by the monetary authorities during the analysed period. These VAR models include both country-specific and euro-area variables to account for the cross-country heterogeneity in the transmission mechanism of monetary policy.

While previous empirical evidence has largely focused on aggregate macroeconomic metrics (e.g., by estimating the impact of monetary policy on unemployment rate at country level), our contribution to this literature lies in providing specific results for each income class (lower, lower-middle, upper-middle, and upper). More specifically, based on the European Union Statistics on Income and Living Conditions (EU-SILC) database, we derive specific unemployment rate and market income metrics for each income class. Using micro data to compute class-specific variables allows us to evaluate the extent to which the benefits of expansionary monetary policy have been (un)equally shared among households belonging to different parts of the income distribution (i.e., different income classes).

This analysis yields the following results. Regarding the earnings heterogeneity channel, the overall reduction in unemployment rate supported by the past accommodative monetary policy stance in the euro area seems to have particularly favoured the lower and lower-middle classes, hence reducing income inequality. More specifically, the estimated monetary easing shock led to a decline in unemployment rate of around 0.20 and 0.25 percentage points for the lower and lower-middle income classes. On the contrary, the impact on households belonging to the upper-middle and upper classes implies a reduction of around 0.05 and 0.1 percentage points in their class-specific unemployment rates. Furthermore, the estimated impulse response functions also uncover certain heterogeneity among the lower classes: while the lower-middle class starts benefiting from monetary easing already four to five quarters after the policy is implemented, the impact on the poorest households appears later on (i.e., it becomes significant only after almost two years). This finding might point towards the existence of different employability skills among workers belonging to lower and lower-middle households. Last but not least, regarding the income composition channel, the estimated impact of monetary policy on market income seems to be rather limited overall, leading to an increase of around 0.2 and 0.4 percent, and being only statistically significant for the households located in the rightmost part of the income distribution (i.e., the upper class). Therefore, our results suggest that the pre-COVID-19 monetary easing stance has not significantly supported wages earned by lower income classes.

Overall, the results in the paper are informative about the distributive effects of monetary policy and suggest past expansionary monetary policy in the euro area has positively contributed to reducing inequality via disproportionately favouring lower and lower-income households. In particular, the bulk of the impact seems to have taken place via the earnings heterogeneity

channel, while the effect through the income composition channel has been comparatively less prominent.

Disclaimer: the views expressed in this paper are those of the authors only and do not necessarily reflect the views of the European Central Bank or the Eurosystem.