

Distributional Inflation Effect on Household Balance Sheet

Karolis Bielskis

Non-technical research seminar

December 2024

The views expressed in this presentation do not necessarily represent the official views of Lietuvos Bankas or the Eurosystem

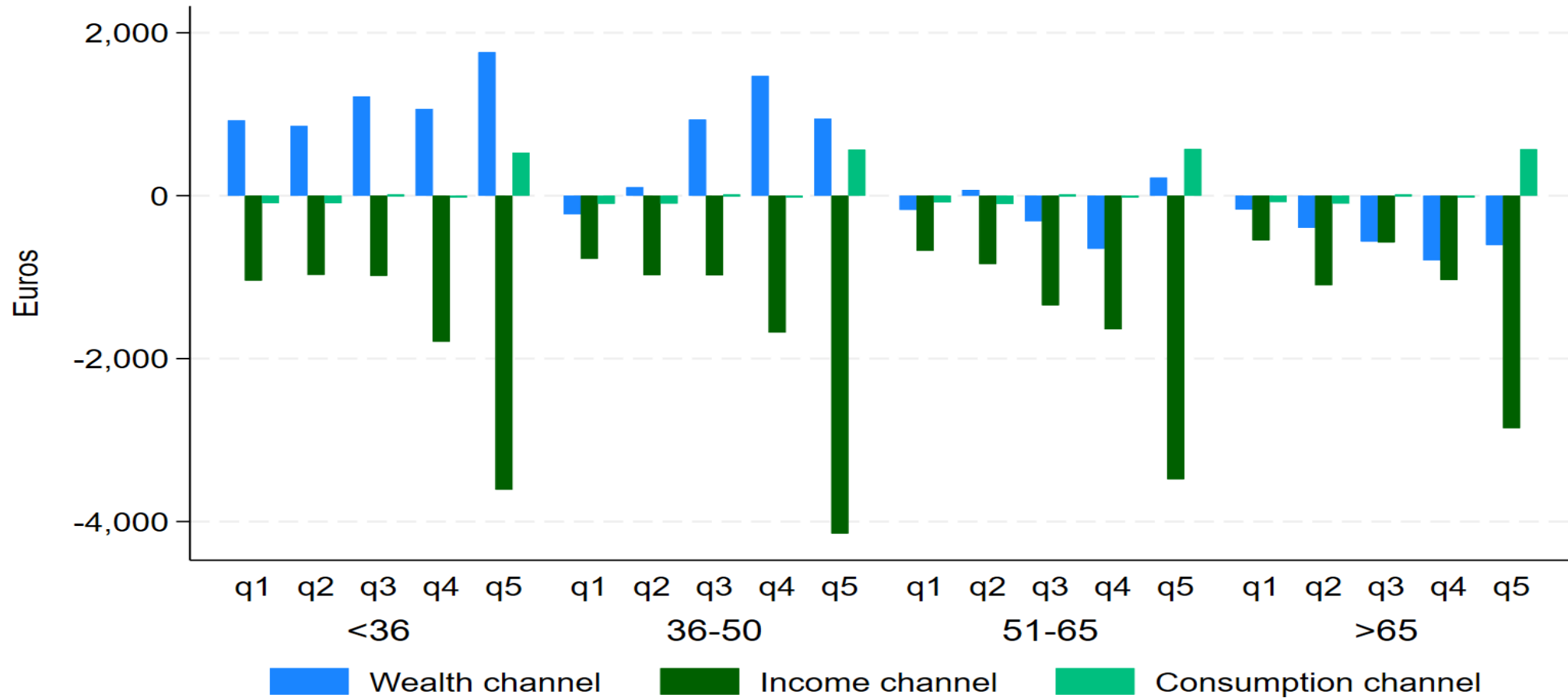
Relevance of the topic

- Unlike many other economic shocks (e.g. unemployment), inflation affects just everybody.
- While inflation may affect everyone, it does not affect everyone in the same way. The effect may be very different across HH due to differences in wealth composition, salary (income) or consumption patterns.
- The aim of my research is to quantify (empirically) different channels through which inflation affects HH wealth, also to adjust for the fiscal and monetary policy impacts and to identify heterogeneities between households. I quantify these channels for Lithuania concentrating on 2022 (the year of inflation peak).
- I use Household Finance and Consumption Survey (HFCS) data for this research.
 - HFCS data (about Lithuania) is exclusively collected by ourselves (LB), but the project is harmonized and run across different countries in Europe.
 - It provides micro-level data about HH finances, consumption and other characteristics.

3 key channels how inflation affects HH balance sheet

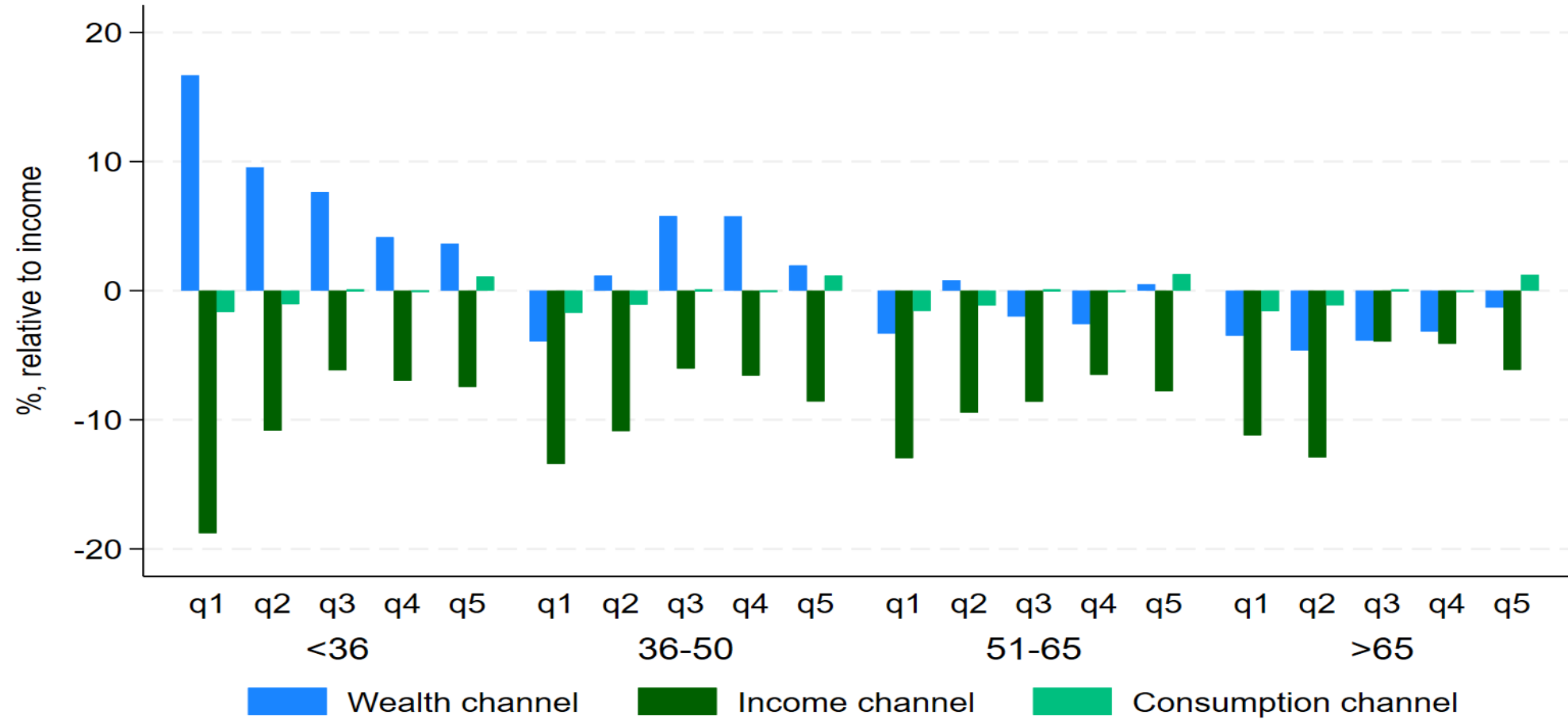
- *Wealth (Net Nominal Position) effect* – it captures how inflation redistributes real wealth from lenders to borrowers by changing the value of nominal assets and liabilities.
- *Income effect* – it captures how inflation reduces the real value of nominal income (such as wage, pensions, or unemployment benefits).
- *Consumption effect* – it captures differences in consumption baskets of good and services between different households.

Inflation hit HH differently through all three channels in Lithuania



For example: 65+ years old HH from the q4 income quintile has (relatively) lost ~800 € of wealth, ~1100 € of income, and ~0 € of consumption.

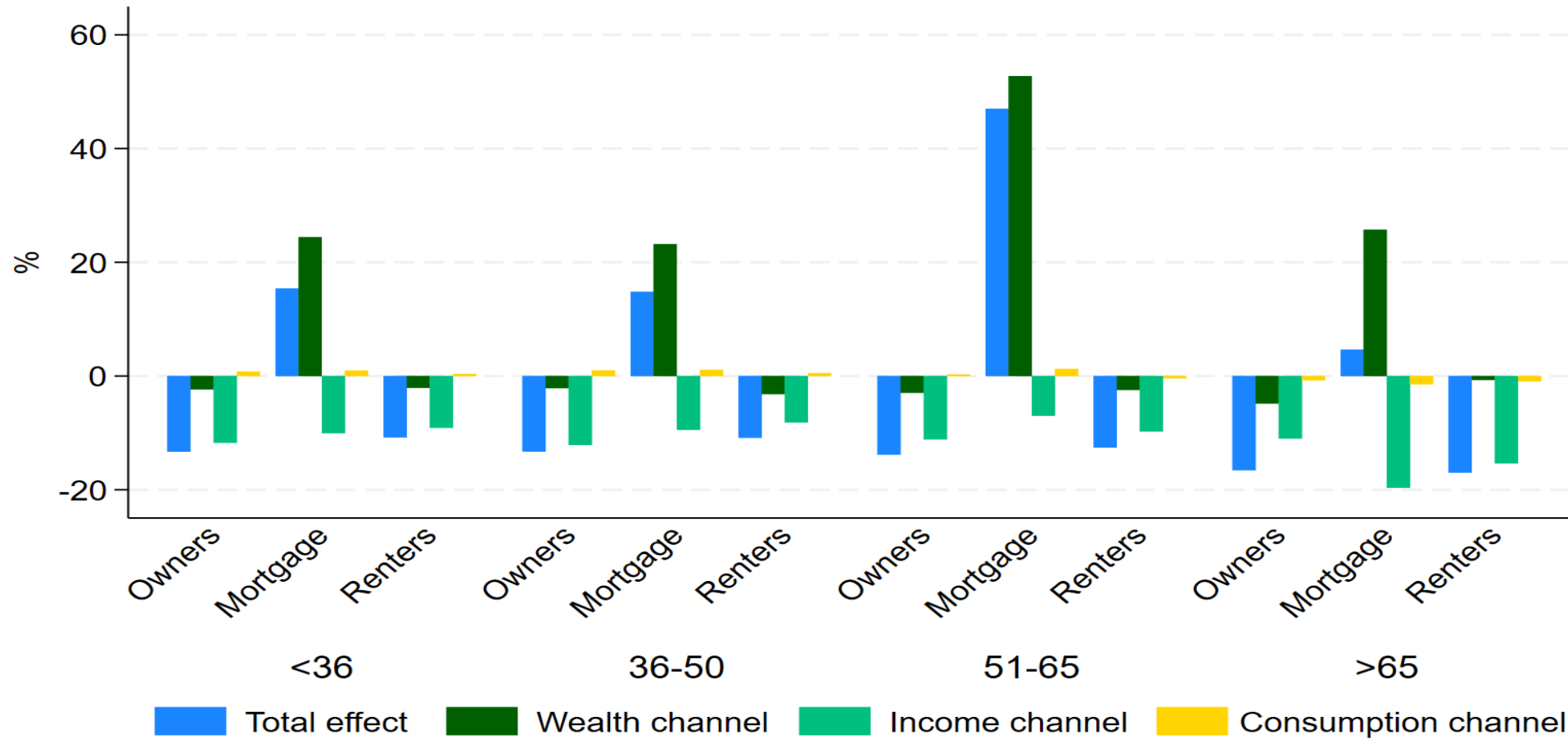
Relative (to income) effect hits the lowest income HH the most



For example: HH from q1 income quintile and the age cohort of 36-50 has lost ~19% of its annual income. ~4% due to the wealth effect, ~13% due to the income effect, and ~2% due to the relative consumption effect.



Mortgage owners gained from the devaluation of their liabilities



For example: mortgage owners from the age cohorts of 36-50 have gained from the devaluation of their liabilities, which was ~22% of their annual income. Therefore, wealth channel was very small and limited for owners and renters.

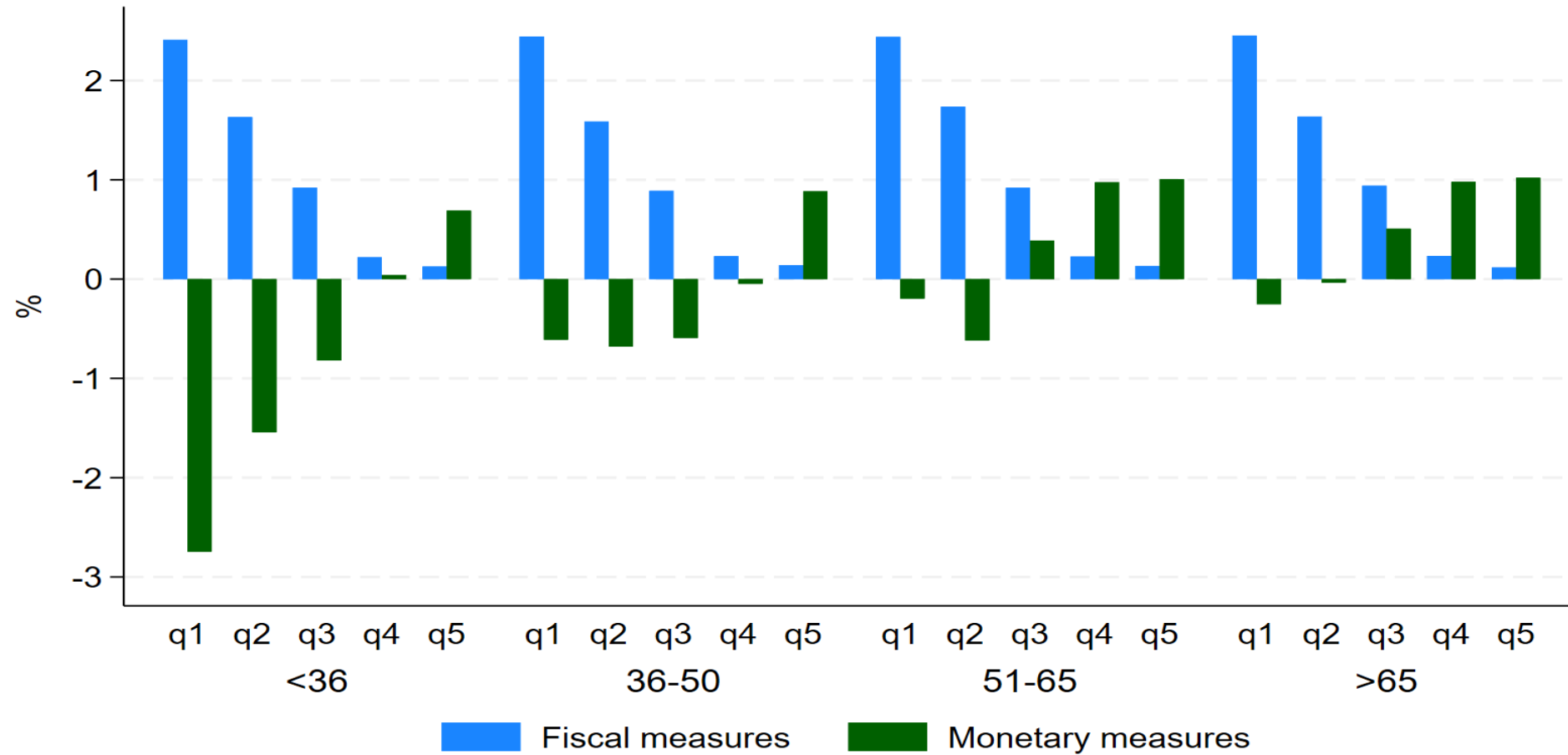
Fiscal and monetary policy adjustments

- *Wealth (Net Nominal Position) effect*
- *Income effect*
- *Consumption effect*

Unlike these three inflationary channels, household's balance sheet was also affected by fiscal and monetary policy adjustments to ease the inflation effect.

- *Fiscal adjustments* – it captures fiscal policy adjustments to respond to rising prices and to prevent a serious fall in disposable income (mostly through indexation of pensions, social benefits and basic salaries in the public sector). EUROMOD information is used to capture these adjustments at different income quintiles.
- *Monetary adjustments* – it captures the ECB's reaction to the inflationary period and increased interest rates over 2022 (from zero to 2.5%). Households are affected by increased interest rates based on how their wealth is exposed to changes in the real interest rate.

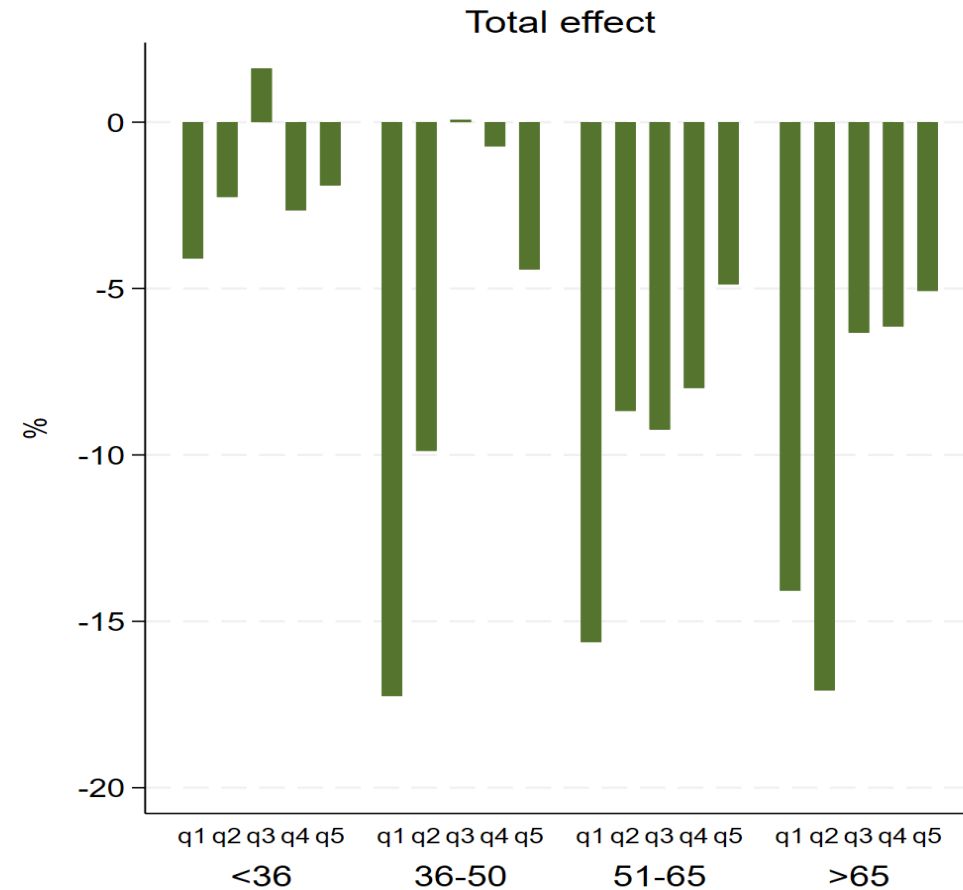
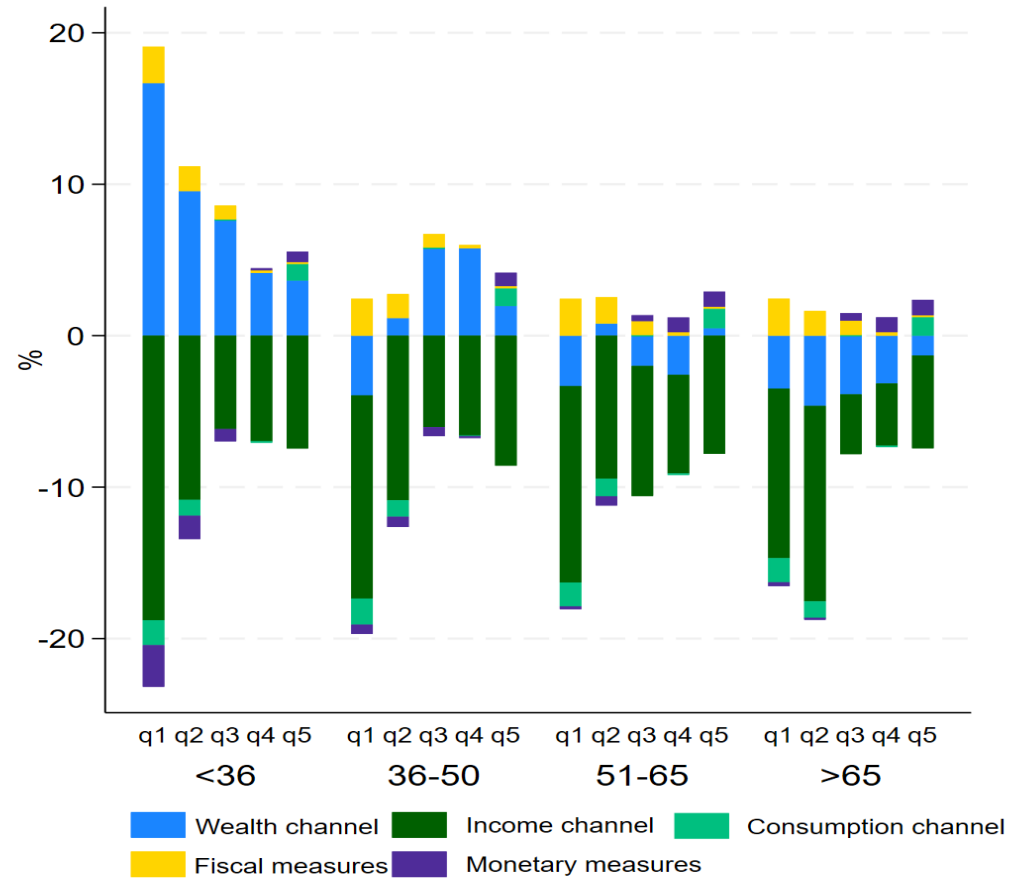
Fiscal and monetary adjustments



Fiscal policy adjusted inflationary effects more for the low-income HHs, while monetary policy was in favor of the older HHs.



Overall, lower income and older HHs were affected stronger during the inflationary period



Overall, inflation has decreased the balance sheet of older and lower income HHs more than others. Some of HHs have lost assets equivalent to 10-17 % of their annual income. Young HHs have lost about 0-4 % of their annual income in asset value.

Conclusions

- **Wealth** (net nominal position) and **income** channels are the **strongest** in Lithuania. Both of channels correspond to the highest effects on HH total wealth.
- In **relative** (to income) terms, bottom (income) quintiles were more affected (than others) by the recent jump in inflation. **Relative** effect was also stronger for the older HH cohorts.
- Young HHs lost very little of their wealth (compared to others) due to the devaluation of their liabilities.
- Wealth effect was in favor of mortgage holders and had less impact on owners or renters.
- Fiscal policy adjustments were more targeted at the lower income HHs, while monetary policy changes (interest rate increases) benefited higher income and older HH groups.

Recommendations and suggestions:

- More targeted (fiscal) policies should be considered in action to better address such shocks.
- Different distribution channels should be analyzed in order to capture and understand the impact of economic shocks.
- To fulfill the previous objectives, more microeconomic data sets should be put into action.



LIETUVOS BANKAS
EURO SISTEMA

