The Distributional Effects of Macroeconomic Policy

Davide Furceri

International Monetary Fund

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The views expressed in this paper are those of the authors and do not necessarily represent those of the IMF or IMF policy.
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Extensive literature on inequality drivers

Motivation

But mostly focusing on structural drivers:

- Technological progress (Bound and Johnson 1992; Acemoglu 2002);
- Demographics (Karahan and Ozkan 2013);
- Trade and Financial Openness (Feenstra and Hanson 2008; Furceri et al. 2017)
- Labor market structure (Card 2001; Jaumotte and Osorio-Buitron 2015)
- Structural reforms (Fabrizio et al. 2017; Ostry et al. 2018)

Concerns about the impact of monetary and fiscal policy:

- We know little about distributive consequence of MP (mostly about US)
- FP and inequality. only evidence for advanced economies

Monetary policy and inequality

Ambiguous effects

Motivation

In theory, expansionary monetary policy may:

- Increase inequality
  - Boosting asset prices—top-income households hold larger shares
  - Increasing inflation—low-income households hold more liquid asset
- Reduce inequality
  - Benefiting borrower and hurting savers
  - Economic activity affects more labor earnings at the bottom of distribution

Empirical evidence

- Coibion et al. (2012) for the US: expansionary monetary policy reduces inequality
- O'Farrell et al. (2016): effect varies across 8 OECD countries
- Adam and Tzamourani (2015): effect varies across EU countries/assets prices
- Saiki and Frost (2014) for Japan: expansionary monetary policy increases inequality

Contribution

Contribution

1. Effect of monetary policy on inequality constructing unexpected, and orthogonal to innovations in economic activity, changes in policy rates.

2. Examining the impact of monetary policy on inequality for a large sample of advanced and emerging market economies.

3. Assessing whether the effects of monetary policy shocks:
   - vary over time,
   - depend on the type of monetary shocks (tightening vs. expansionary),
   - the state of the business cycle,
   - the share of labor income to total income
   - the size of redistribution policies.

What we don't do: assess the effects of unconventional monetary policy.

Key findings

Summary

- Contractionary (expansionary) monetary actions increase (reduce) inequality.

- The effect is larger for positive monetary policy shocks—especially during expansions,...

- …and in countries with higher labor share of income and lower redistribution.

- Changes in policy rates driven by an increase in growth are associated with lower inequality.

- Expansionary monetary policy is likely to increase wealth inequality in the short run but reduce it in the medium term.

Orthogonal Monetary Policy Shocks (MP)

Methodology

$$FE^{i}_{i,t} = \alpha + \beta FE^{inf}_{i,t} + \gamma FE^{g}_{i,t} + MP_{i,t}$$

- $\boldsymbol{FE^{i}}$ is the difference between the actual policy rates and the rate expected in October of the same year (*Consensus forecasts*);
- $\boldsymbol{FE^{inf}}$ is the forecast error of inflation;
- $\boldsymbol{FE^{g}}$ is the forecast error of growth.

Advantage of this approach (Auerbach and Gorodnichenko 2013):

- eliminates the problem of "policy foresight" (Forni and Gambetti 2010; Leeper et al. 2012);
- reduces the likelihood of capturing the potentially endogenous response of monetary policy to the state of the economy.

Empirical framework

Methodology

- Local projection method to assess the response of inequality to monetary policy shocks:

$$y_{i,t+k} - y_{i,t} = \alpha_i^k + \vartheta_t^k + \beta^k MP_{i,t} + \pi^k X_{i,t} + \varepsilon_{i,t}^k \qquad (1)$$

- ***y*** is the log of inequality; ***X*** a set of control including lagged change in inequality and monetary policy shocks.

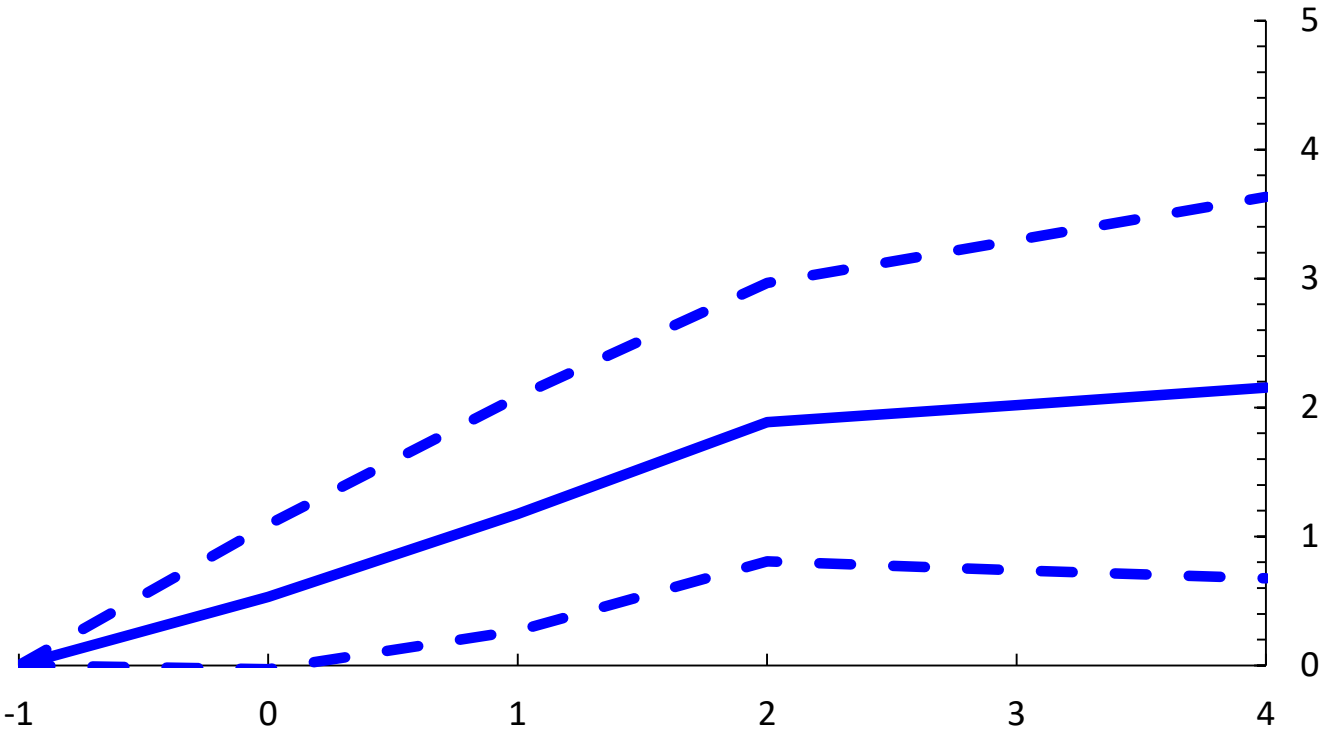
- Measures of inequality: net and market income inequality (SWIID 5.1); top income share (WTID), and share of wage income/GDP (OECD).

- Sample: unbalanced panel of 32 advanced and emerging market economies from 1990 to 2013.

Results

Contractionary MP increases inequality

Effect of a 100 bps exogenous increase in policy rates (percent)



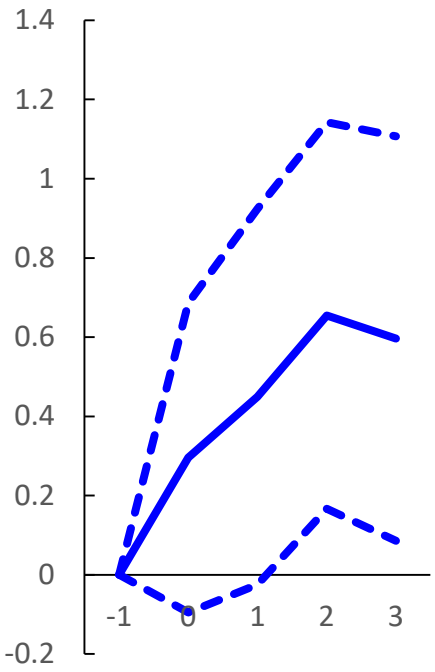
Note: t=0 is the year of the shock. Solid lines denote the response to an unanticipated increase in monetary policy rates of 100 basis points, and dashed lines denote 90 percent confidence bands. Estimates based on equation (1).

Results

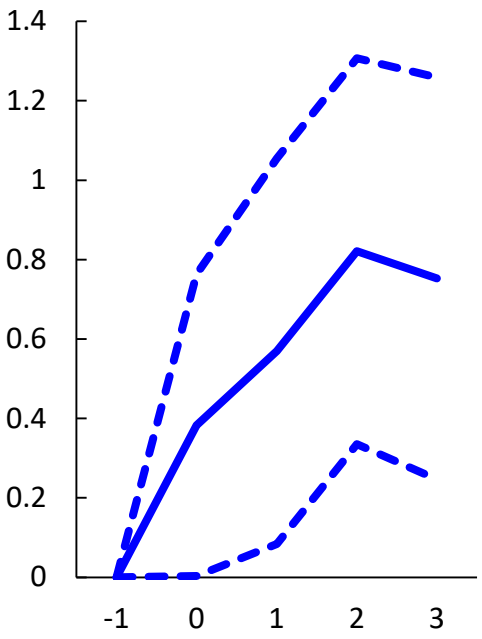
Effect on top income shares

Effect of a 100 bps exogenous increase in policy rates (percentage points)

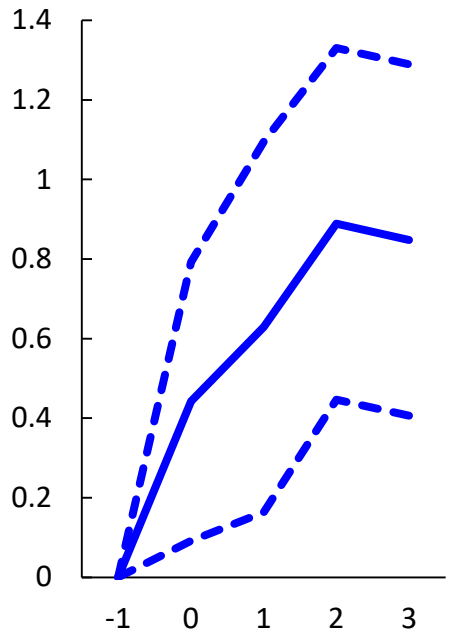
Panel A. Top 10 percent



Panel B. Top 5 percent



Panel C. Top 1 percent

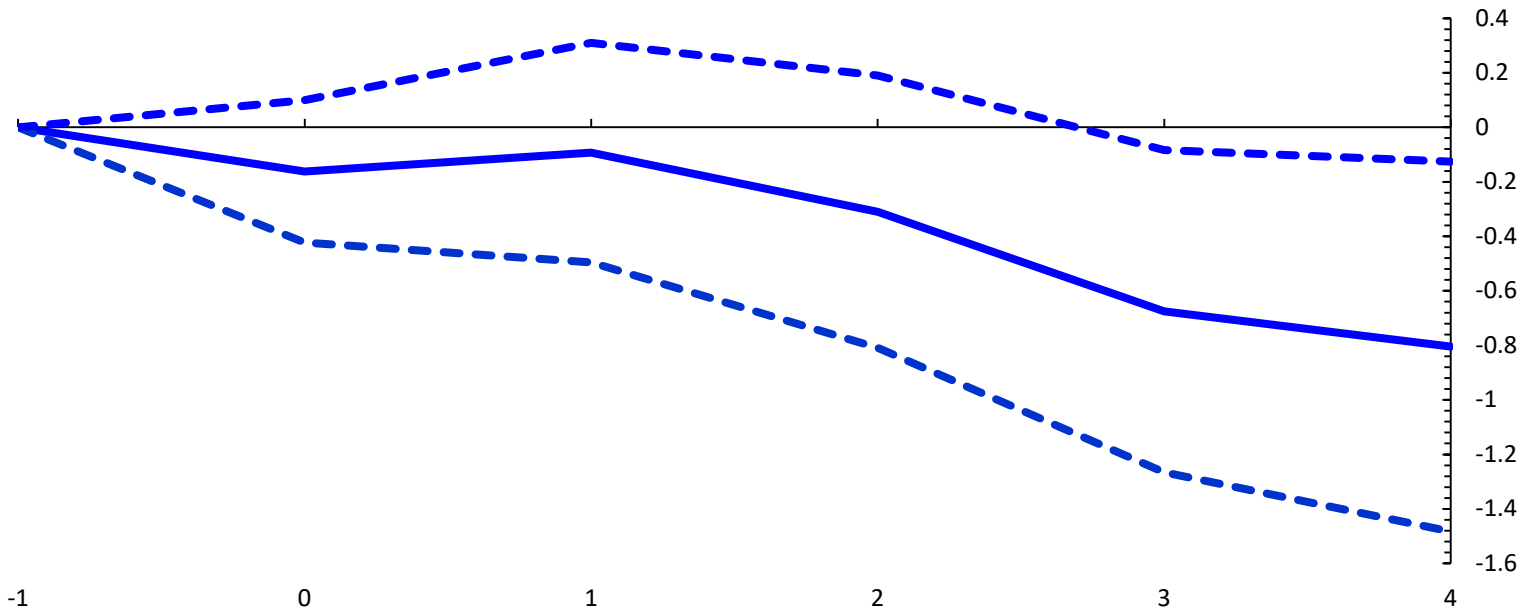


Note: t=0 is the year of the shock. Solid lines denote the response to an unanticipated increase in monetary policy rates of 100 basis points, and dashed lines denote 90 percent confidence bands. Estimates based on equation (1).

Results

Effect on labor share

Effect of a 100 bps exogenous increase in policy rates (percentage points)



Note: t=0 is the year of the shock. Solid lines denote the response to an unanticipated increase in monetary policy rates of 100 basis points, and dashed lines denote 90 percent confidence bands. Estimates based on equation (1).

Fiscal policy and inequality

Contribution

Motivation

- Identify fiscal shocks—that can be deemed exogenous to economic and distributional conditions—for 103 developing economies.

- Examine the effect of government expenditure and its components on several measures of income distribution (approach not suited to identify exogenous tax shocks).

- Compute the *inequality multiplier*.

Key findings

Summary

- An unanticipated fiscal contraction leads to a long-lasting increase in income inequality.

- This effect is economically significant: the Gini coefficient is quite stable over time; the effect corresponds to about 1 standard deviation of the average change in the Gini coefficient in our sample.

- The inequality multiplier is about 1: a cumulative decrease in government spending of 1 percent of GDP over 5 years is associated with a cumulative increase in the Gini coefficient over the same period of about 1 percentage point.

- The effect is largest for total government expenditures (including transfers), and larger for government investment than consumption.

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