Bartscher, Alina K.; Kuhn, Moritz; Schularick, Moritz; Wachtel, Paul

Research Report

Monetary Policy and Racial Inequality

ECONtribute Policy Brief, No. 014

Provided in Cooperation with:
Reinhard Selten Institute (RSI), University of Bonn and University of Cologne

Suggested Citation: Bartscher, Alina K.; Kuhn, Moritz; Schularick, Moritz; Wachtel, Paul (2021) : Monetary Policy and Racial Inequality, ECONtribute Policy Brief, No. 014, University of Bonn and University of Cologne, Reinhard Selten Institute (RSI), Bonn and Cologne

This Version is available at:
https://hdl.handle.net/10419/268567

ECONtribute
MARKETS & PUBLIC POLICY

VoxEU.org

ECONtribute
Policy Brief No. 014

Monetary Policy and Racial Inequality

Alina K. Bartscher
Moritz Schularick
Moritz Kuhn
Paul Wachtel

February 2021

www.econtribute.de

UNIVERSITÄT BONN
Universität zu Köln

Funding by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) under Germany´s Excellence Strategy – EXC 2126/1– 390838866 is gratefully acknowledged.

Monetary Policy and Racial Inequality

Alina K. Bartscher, Moritz Kuhn, Moritz Schularick and Paul Wachtel

04. February 2021

Racial income and wealth gaps in the United States are large and persistent. Recently, central bankers and politicians have put forward the suggestion that monetary policy can be used to reduce these inequalities. We investigate the distributional effects of monetary policy in a unified framework, linking monetary policy shocks both to earnings and wealth differentials between black and white households. Over multi-year horizons, we find that while accommodative monetary policy tends to reduce racial unemployment and thus earnings differentials, it exacerbates racial wealth differentials, which implies an important tradeoff for policymakers.

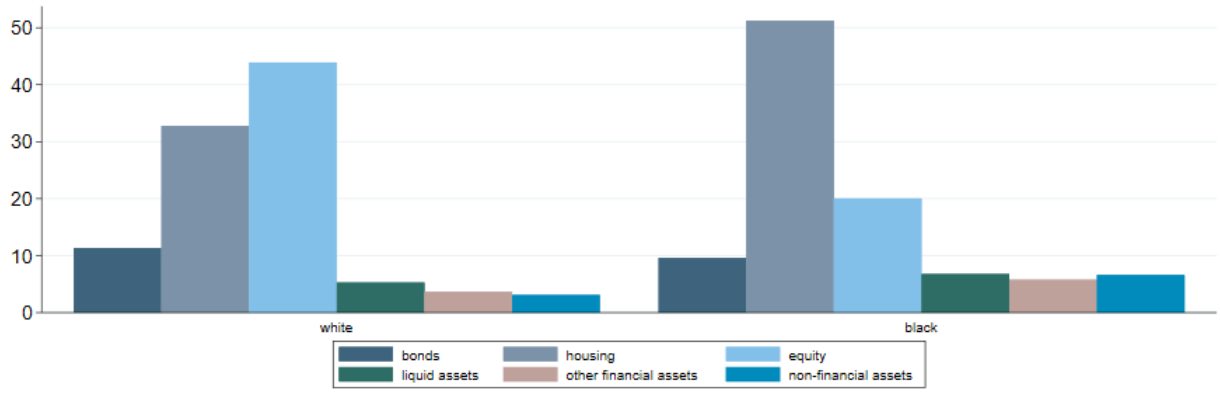
The gap between the income and wealth of black and white households in the United States is large and persistent. According the 2019 Survey of Consumer Finances (SCF), the median wealth of a white household is almost nine times larger than for the median black household. The income gap is smaller (1.7 times) but still large. Moreover, these gaps are as large as they were fifty years ago (Kuhn et al. 2020). Concern about racial inequality has increased recently with evidence that the Covid pandemic is having a disproportionate effect on the black community (Bertocchi and Dimico 2020). These stark facts have attracted the attention of economists (e.g., Mayhew and Wills 2020; Chetty et al. 2018) and policymakers. For instance, Raphael Bostic, president of the Federal Reserve Bank of Atlanta, recently stated that the Federal Reserve "can play an important role in helping to reduce racial inequities and bring about a more inclusive economy."[1]

A prominent line of thinking is that an accommodative monetary policy lowers unemployment rates and increases labor income for marginal workers, who are oftentimes low-income and minority households. This is what Coibion et al. (2014) call the earnings channel of monetary policy. More specifically, Carpenter and Rodgers (2004) show that a monetary policy accommodation reduces the gap between the unemployment rates of black and white households.

[1] https://www.frbatlanta.org/about/feature/2020/06/12/bostic-a-moral-and-economic-imperative-to-end-racism

Yet at the same time, monetary policy has portfolio effects through its impact on asset prices. Asset price changes affect the wealth distribution if portfolios differ systematically between black and white households, as is the case (Figure 1). Only one third of black households hold equity and less than half own a home. As a result, monetary policy that increases asset prices potentially has different effects on the portfolios of black and white households.

Figure 1: Portfolio composition (percent of total for white and black households)



Much of the existing literature on the distributional consequences of monetary policy focusses on the income distribution, while the wealth distribution has largely been ignored because it was assumed that policy effects on asset prices were temporary. However, recent work suggests that these effects are persistent (Bernanke and Kuttner 2005, Paul 2020, Bernanke 2020, Cieslak and Vissing-Jorgensen 2020). The relative magnitudes of earnings and portfolio effects on the racial wealth and income gaps have not been explored in the literature.

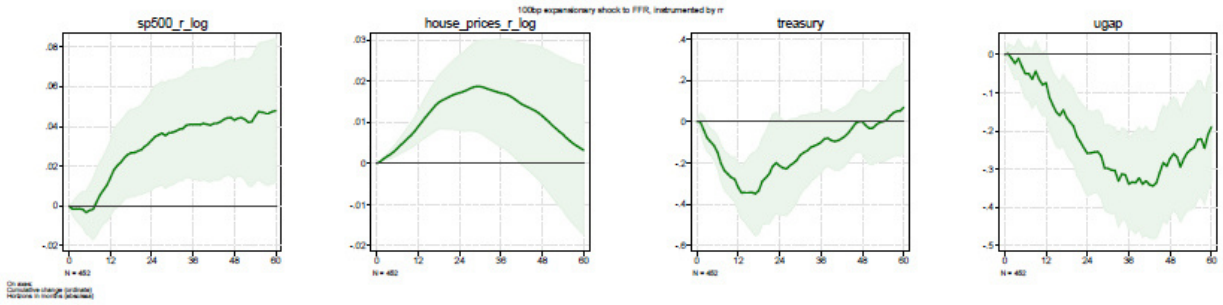
Our new research (Bartscher et al. 2021) addresses this issue. We systematically examine the impact of a monetary policy expansion on the wealth of black and white households through the portfolio channel and on the gap between black and white income through the earnings channel. First, we estimate the impact of a policy shock on asset prices and the unemployment gap. Next, we use these estimates to examine the changes in wealth and income of the typical black and white household using data from the 2019 SCF to show how monetary policy effects the gaps. We find that although an expansionary monetary policy reduces the gap between black and white unemployment rates, this has only a small effect on the gap between average black and white earnings. At the same time, the policy expansion increases asset prices, resulting in capital gains which are orders or magnitude larger for white than for black households.

Monetary policy, asset prices and the unemployment gap

To estimate the effects of a policy shock on asset prices, interest rates and the unemployment gap, we use instrumental variables local projections following Stock and Watson (2018) and Jorda, Schularick and Taylor (2020). Several exogenous policy shock measures are taken from the literature, including our benchmark series from Romer and Romer (2004) as updated by Coibon et al (2017).

Figure 2 shows the effects of the monetary policy shock (a 100 bp reduction in the Federal funds rate) over a five-year period. Similar results are found with other shock measures. There is a substantial asset price boosting effect of surprise monetary easing, in combination with a reduction in the black-white unemployment gap. If white households profit disproportionately from such asset price increases, then it is possible that the portfolio effects of monetary easing go in the opposite direction of the income effects.

Figure 2: Effect of monetary policy shock



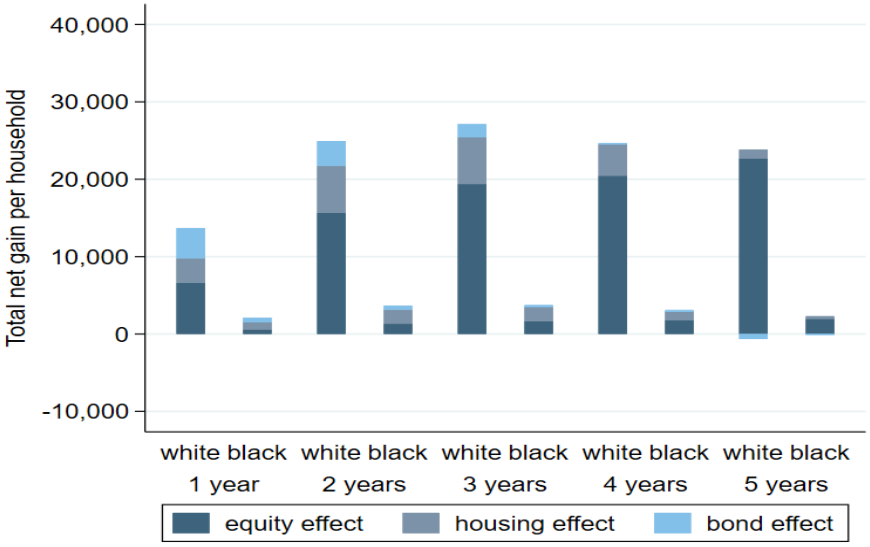
Note: Effect of 100 bp expansonary shock to Federal funds rate on (from left to right): Stock prices (S&P 500), House prices (Case-Shiller Index), 10 year Treasury Bond rate and the gap between Black and White unemployment rates.

Earnings and portfolio effects of monetary policy

Based on our estimates of the asset price effects and the observed portfolio allocation, we derive the estimated effects of the monetary policy shock on wealth, which are shown in Figure 3. An unanticipated monetary policy accommodation leads to asset price changes that benefit white households to a much larger extent than black households because average white wealth is much larger, and a larger fraction is held in equities. The largest effects are after three years, reaching about

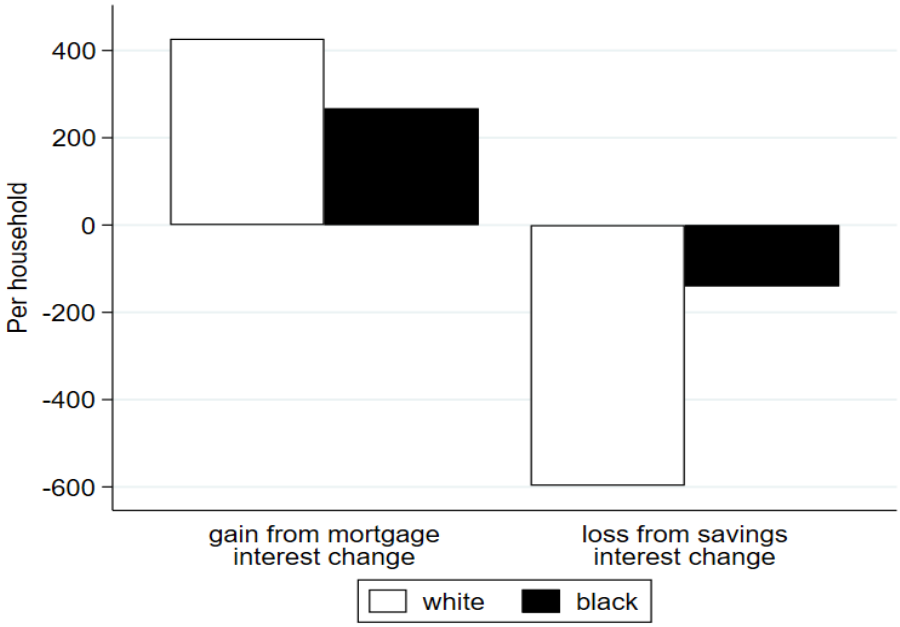
$25,000 for white households and about one-fifth as much for black households. The biggest effect comes from the large and persistent effect on equity prices, while the house price effect diminishes over time. Bond effects are small because bond holdings are only a small fraction of total wealth for both black and white households.

Figure 3: Effect of 100 bp monetary policy shock on wealth per household



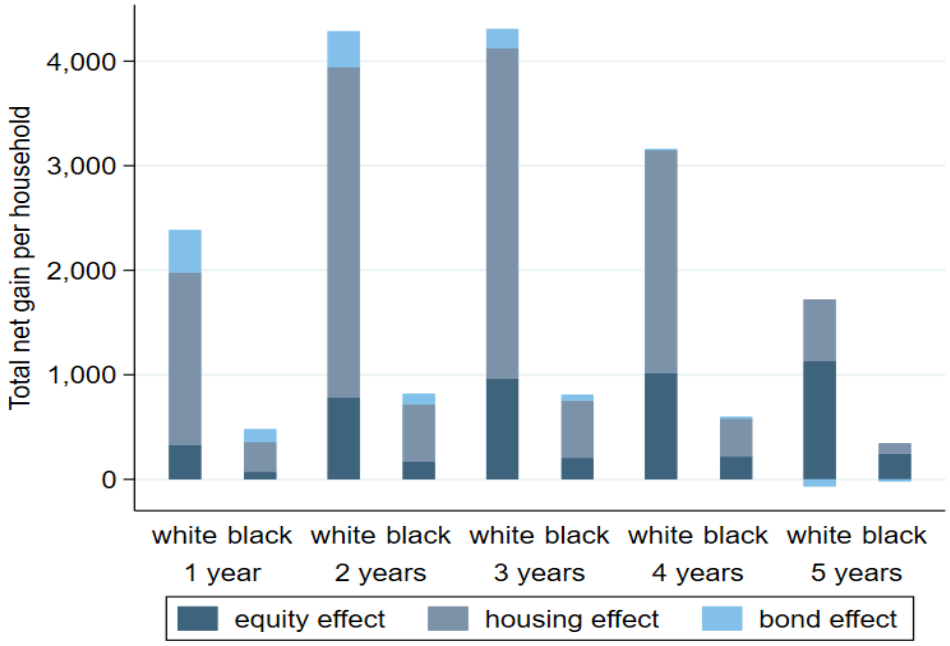
In addition to the portfolio effects, i.e., the direct effects of capital gains from the monetary shock, there are additional indirect effects of monetary policy shocks if an accommodative monetary shock reduces mortgage interest rates and the interest earned on deposit-type assets. Making assumptions on refinancing and passthrough to mortgage interest rates, we derive the mortgage interest and deposit rate effects from the monetary shock. These effects are shown in Figure 4. Interestingly, black households, with small deposit balances to begin with, lose little from lower interest rates; the average black household gains more from mortgage refinancing. White household deposit interest losses, almost 600 dollars, are higher than the average gains from refinancing.

Figure 4: Additional effects of 100 bp monetary policy shock



Our estimates consider the effects of asset price changes on the wealth of the average black and white household. Since portfolio gains are highly concentrated among wealthy households, one may suspect that the racial wealth gap among more "typical" households might be less affected by asset price changes. To examine this, we look at black and white households around the median of their respective wealth distributions (defined as households between the 40th and 60th percentiles). The portfolio effects of a monetary policy surprise on black and white households around the median are shown in Figure 5. Comparing the effects around the median to the average effects, we find that gains are smaller in levels but that the relative differences between black and white households persist.

Figure 5: Effect of 100 bp monetary policy shock on households around the median



Quantifying the earnings effect

The average gap between black and white unemployment rates has historically been about six percentage points. Our estimates show that the gap is reduced by a 100-bp monetary policy shock, with a peak effect after 3 years of -0.34 percentage points. We use earnings data from the 2019 SCF and some conservative assumptions to estimate the impact of the reduction in the unemployment gap on the earnings gap. Specifically, we assume that each black household head who finds employment receives the average earnings of employed black households. The additional income gains of the average black relative to white household is computed by multiplying the estimated impact of the monetary policy shock on the unemployment gap with the average earnings gain. The result is less than $100 per household, or just 0.19 percent of annual total income for all black households.

Finally, we compare the relative earnings effect to the relative portfolio effect defined as the difference in capital gains accruing to black and white households. The earnings effect of 0.19 percent of annual income after three years can be contrasted with the corresponding differential portfolio effect after three years of around 17 percent of annual income. Hence, the differential in the capital gains effect is orders of magnitude larger than the earnings effect.

Conclusion

Monetary policy shocks that change asset prices have differential effects on the wealth of black and white households. White households gain more because they have more financial wealth and hold portfolios that are more concentrated in interest-rate-sensitive assets such as equities. At the same time, monetary policy shocks reduce the gap between black and white unemployment rates and bring larger earnings gains for black households. Bringing the two together, however, leads to one stark finding: the reduction in the earnings gap pales in comparison to the effects on the wealth gap. Our analysis therefore does not bode well for the suggestion that a more accommodative monetary policy helps alleviate racial inequalities. Clearly, this does not mean that achieving racial equity should not be an important objective of economic policy, but the tools available to central banks might not be the right ones.

References

- Bartscher, Alina K., Moritz Kuhn, Moritz Schularick and Paul Wachtel (2021), "Monetary Policy and Racial Inequality," https://cepr.org/active/publications/discussion_papers/dp.php?dpno=15734
- Bernanke, Ben S. and Kenneth N. Kuttner (2005). "What Explains the Stock Market's Reaction to Federal Reserve Policy?" In: The Journal of finance 60.3, pp. 1221-1257.
- Bernanke, Ben S. (2020). "The New Tools of Monetary Policy." In: American Economic Review 110.4, pp 943-83.
- Bertocchi, Graziella and Arcangelo Dimico (2020). "Race and the COVID-19 pandemic." https://voxeu.org/article/race-and-covid-19-pandemic
- Carpenter, Seth B. and William M. Rodgers (2004). "The Disparate Labor Market Impacts of Monetary Policy." In: Journal of Policy Analysis and Management 23.4, pp. 813-830.
- Chetty, Raj, Nathaniel Hendren, Maggie R. Jones, and Sonya R. Porter (2018). "Race and economic opportunity in the United States." https://voxeu.org/article/race-and-economic-opportunity-united-states
- Cieslak, Anna and Annette Vissing-Jorgensen (2020). The economics of the Fed put. Working Paper. National Bureau of Economic Research.
- Coibion, Olivier, Yuriy Gorodnichenko, Lorenz Kueng and John Silvia (2014). "Innocent bystanders? Monetary policy and inequality in the US". https://voxeu.org/article/monetary-policy-and-inequality-us

- Jorda, Oscar, Moritz Schularick, and Alan M. Taylor (2020). "The Effects of Quasi-Random Monetary Experiments." In: Journal of Monetary Economics 112, pp. 22-40.
- Kuhn, Moritz, Moritz Schularick, and Ulrike I. Steins (2020). "Income and Wealth Inequality in America, 1949–2016." In: Journal of Political Economy 128.9, pp. 3469–3519.
- Mayhew, Ken and Samuel Wills (2020). "Inequality: What has happened, why care, and what can be done about it". https://voxeu.org/article/inequality-what-has-happened-why-care-and-what-can-be-done
- Paul, Pascal (2020). "The Time-varying Effect of Monetary Policy on Asset Prices." In: Review of Economics and Statistics 102.4, pp. 690-704.
- Romer, Christina D. and David H. Romer (2004). "A new measure of monetary shocks: Derivation and implications." In: American Economic Review 94.4, pp. 1055-1084.
- Stock, James H. and Mark W. Watson (2018). "Identification and estimation of dynamic causal effects in macroeconomics using external instruments." In: The Economic Journal 128.610, pp. 917–948.