
Channeling Prosperity: The Nexus Between Monetary Policy and Income Inequality

NOAH YOSIF

INTRODUCTION

Over the past decade, most countries have endured two of the worst economic recessions in modern history. The global financial crisis of 2008 precipitated a USD 2 trillion reduction in economic growth,¹ leaving more than 150 million people unemployed and expanding aggregate debt balances by USD 72 trillion over the following ten years.² Similarly, the recession induced by the COVID-19 pandemic of 2020 is expected to reduce global economic growth by over USD 8.5 trillion,³ leave more than 205 million people unemployed,⁴ and expand global debt balances by USD 19.5 trillion over the next two years.⁵ These crises have redirected public attention to income inequality due to their disproportionate impact on the employees, households, and businesses least financially capable of bearing the consequences. This has prompted policymakers to consider the implications of economic policy responses to such crises for income inequality to produce an equitable and synchronized recovery among all facets of their economies.

One particular area of interest to policymakers is the relationship between monetary policy and income inequality. Monetary policy refers

Noah Yosif is Assistant Vice President for Economic Policy & Research at the Independent Community Bankers of America (ICBA) and an MPA candidate at the Fels Institute of Government at the University of Pennsylvania. His research focuses on financial institutions as well as the economic dynamics which influence their behavior, particularly monetary and fiscal policy. He previously served as an Economist with the United States Bureau of Labor Statistics and held additional research-related roles at the United States Department of the Treasury, Fannie Mae, and Federal Reserve Board. He holds an MA in Applied Economics, as well as a BA in Economics from the George Washington University.

to a panoply of measures enacted by central banks to maximize employment and maintain price stability in the pursuit of economic growth. These measures can comprise conventional tools, such as interest rate adjustments, as well as unconventional tools like quantitative easing or forward guidance. Expansionary monetary policy can assist the economy during periods

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of downturn by decreasing central bank interest rates, while contractionary monetary policy can prevent robust growth from causing price instability via inflation. While addressing income inequality is not a direct objective of monetary policy, income inequality is influenced by macroeconomic factors which are directly influenced by it, such as employment, inflation, and economic growth. Whereas fiscal policy comprised of government expenditures or tax measures, can be adjusted to selectively support specific facets of an

economy, monetary policy is intended to produce comprehensive changes to the economy at large by regulating the money supply. Hence, since monetary policy affects all facets of the economy, the extent of the impact affects income inequality.

In this paper, I identify some of the channels that enable monetary policy to influence income inequality by studying this relationship via different individual income quintiles, country wealth brackets, and household financial instruments. Specifically, I found that a hundred basis-point change in central bank interest rates affected the income share of households in the top income quintile between three and eight times more than households in the lowest income quintile. Additionally, high-income countries and upper-middle income countries experienced an 11.5 and 18.6 percent reduction in their Gini coefficients respectively for every hundred basis-point change in central bank interest rates, while lower-middle income economies experienced an 82.1 percent reduction in their Gini coefficient given these same terms. Finally, disposable income and financial assets were the main variables by which monetary policy impacted income inequality among different households. The results suggest monetary policy influences income inequality through multiplier effects on high-income households given their larger share of wealth.

LITERATURE REVIEW

Academic research into the nexus between monetary policy and income inequality is still in its infancy. However, several theories have emerged concerning the main channels by which conventional monetary policy influences income inequality including inflation, savings, personal income, and employment channels. Understanding the specifics of these channels provides context to the conditions which enables monetary policy to influence income inequality, as well as the magnitude of its overall effects. Erosa and Ventura held that contractionary monetary policy constitutes a regressive consumption tax which increases income inequality through an inflation tax channel. This behavior results from higher central bank interest rates that bolster inflation expectations—or the expected amount by which prices will rise—and depress the purchasing power of low-income households that are prone to conduct more transactions with cash.⁶ Albert and Gomez-Fernandez found that low-income and high-income households retain the largest gains in wealth from expansionary monetary policy.⁷ Similarly, while Auclert did not suggest a directional relationship between income inequality and monetary policy, he noted that reductions in central bank interest rates increase asset prices to the extent they discount future decreases in dividends via an interest rate exposure channel.⁸ In particular, net savers with short-term assets, such as stocks and bonds, as well as net borrowers with long term debt, such as mortgages, are the main beneficiaries from expansionary monetary policy, experiencing gains proportionate to their investment within these particular assets.

Conversely, a study by Doepke and Schneider found that expansionary monetary policy lowers the real value of nominal assets, reducing income inequality through a savings redistribution channel which disproportionately affects high-income households. This dynamic occurs because wealthy households, as net savers that hold short-term denominated debt, are disadvantaged relative to middle-class households with long-term denominated debt via financial instruments such as fixed-rate mortgages.⁹ These are supported by Cloyne et al., who found that middle-class households have the means to increase consumption compared to low-income households and the inclination to increase consumption compared to high-income households, allowing expansionary monetary policy to have a redistributive effect.¹⁰

Additional research has examined the effects of monetary policy on income inequality beyond household finances with a particular focus on labor markets. Heathcote, Perri, and Violante examined the relationship between

monetary policy and income inequality by utilizing an earnings heterogeneity channel. Their findings indicate that earnings among high-income households are primarily influenced by changes in hourly wages. As such, the same households benefit if expansionary monetary policy has a larger effect on inflation and wages. Earnings among low-income households are primarily influenced by hours worked, and they also benefit if expansionary monetary policy has a larger effect on reducing unemployment.¹¹ These outcomes were confirmed by Carpenter and Rodgers,¹² who found that contractionary monetary policy leads to higher unemployment which disproportionately affects low-skilled workers. Amberg et al. arrived at similar results by studying the relationship between monetary policy and income inequality via an income distribution channel, finding that contractionary monetary policy is most advantageous for high-income households since their inherent wealth increases based on the interest rate.¹³

These disparate conclusions underscore the complexities of attempting to ascertain the specific effects of monetary policy on income inequality. Given the multitude of interconnected channels by which monetary policy determines changes in income inequality, as well as specific socioeconomic factors that could complicate the magnitude of these effects, the current body of academic literature lacks cohesion on even the most fundamental dynamics of this relationship. Hence, my analyses attempt to bridge some of these discrepancies by identifying commonalities in the interplay between monetary policy and income inequality across multiple channels, including country wealth brackets, individual income quintiles, and household financial instruments. My results serve as a foundation for additional analyses into particular aspects of the relationship between monetary policy and income inequality, as well as a primer for policymakers seeking a greater understanding of the inequalities engendered by monetary policy and the solutions to mitigate these effects.

METHODOLOGY

As mentioned previously, the purpose of this analysis is to identify potential channels by which monetary policy affects income inequality across different countries, income quintiles, and financial instruments. Three multivariate panel regressions were developed to explore the relationship between conventional monetary policy—defined as the manipulation of central bank interest rates—on income inequality. Panel A examines this relationship in the context of country wealth brackets, defined by the World Bank per annual Gross National Income (GNI).¹⁴ The dependent variable for each regression in A is the country's Gini coefficient, a standard measure for national income

inequality ranging from zero percent (signifying a perfectly equitable distribution of income) to 100 percent (signifying a perfectly inequitable distribution of income).¹⁵ Alongside central bank interest rates, the main independent variable of interest, I included annual gross domestic product (GDP), inflation, and unemployment as supplemental independent variables, which allowed for my model to encompass elements in the macroeconomic environment that would likely influence both the conduct of central bank interest rates as well as trends in income inequality.

Panel B disaggregates country-specific trends in the relationship between conventional monetary policy and income inequality through individual income quintiles. The dependent variable for each regression in B is the income share held by each quintile per country wealth bracket, measured as a percentage of net national wealth, and examined in conjunction with GDP, inflation, and unemployment as in Panel A. Conversely, Panel C explores the relationship between conventional monetary policy and income inequality at a national level but among several specific household financial instruments. Each regression in C contains one financial instrument that is the primary dependent variable of interest, either disposable income, household savings, household debt, financial assets, or net worth. These are examined alongside GDP, inflation, and unemployment as in Panel A. The lack of consistent panel data on household financial products within lower-middle income and low-income countries prevented the inclusion of a geographic component to Panel C.

All regressions are comprised of time-variant data from 2003 to 2019, covering the financial crisis of 2008 as well as the preceding and anteceding intervals of global economic expansion. Annual statistics for Gini coefficient, income share per quintile, GDP, inflation, and unemployment were collected from the World Bank. Central bank interest rates were also collected from the same source. However, supplemental data from the International Monetary Fund (IMF)¹⁶ was used to correct for missing data, mainly between 2003 and 2006, then smoothed for consistency by utilizing variable-specific deflators, or base numbers that allow time series data to be estimated over time, to minimize any extreme variations. Data for specific household financial instruments in Panel C were collected utilizing the annual Household Accounts dataset published by the Organization for Economic Cooperation and Development (OECD).¹⁷ To capture the percent change inspired by the independent variables in each regression, I employed logarithmic transformations to the following parameters: GDP, inflation, unemployment, and all specific household financial instruments. This method allowed for reduced variance and more clarity in my results by standardizing the data and accounting for outliers among countries with different averages.

The datasets utilized for Panels A and B consist of thirty-nine nations including nineteen high-income countries, thirteen upper-middle income countries, and five lower-middle income countries. Twenty-five countries are in Europe and Central Asia, nine are in Latin America, three are in East Asia, and one is in North America. The dataset employed for Panel C includes thirty-seven nations, consisting almost exclusively of high-income countries from North America, Western Europe, and East Asia. Data constraints inhibited the inclusion of additional lower-middle income as well as low-income economies. If there was insufficient data for either the dependent variable or primary independent variables for a given country, it was removed from the datasets in Panels A through C.

This approach allowed my analyses to cover a variety of geographic and economic contexts while preserving the internal validity of the results, i.e., the strength of the relationship between conventional monetary policy and income inequality. Lack of available data was also a key reason why this study avoided examining the relationship between unconventional monetary policy and income inequality during economic crises such as the COVID-19 recession of 2020.

RESULTS

In Panel A, the average Gini coefficient was 36.4 percent and ranged from 24 to 59.5 percent, indicating that most countries included within the dataset maintain adequate income equality, as measured by a Gini coefficient between 0.2 and 0.4 percent. However, some countries exhibit a severe income gap, as measured by a Gini coefficient greater than 0.4 percent. Similarly, the average central bank interest rate was 2.96 percent with a standard deviation of 3.71, signifying some divergence between high-income economies, which have generally maintained interest rates near or below the zero bound since the aftermath of the 2008 financial crisis, as well as upper- and lower-middle income economies, which kept interest rates at much higher levels. Similarly, GDP, inflation, and unemployment each show significant variation indicative of the breadth of countries included within the dataset.

The following variables were utilized. $Gini_{it}$ represents the Gini coefficient of a specific country at a particular time t . $\beta_1 IRate_{it}$ denotes central bank interest rates for i and t , while $\ln(\beta_2 X_{it})$ is a multivariate vector that contains GDP, inflation, and unemployment, each logarithmically transformed. δ_t is a time-specific fixed effect predicated on the assumption that neither β_1 nor β_2 retains a constant rate of change per t . Finally, μ_{it} repre-

sents idiosyncratic errors in both i and t not addressed by the model.

In Panel B, the average household income quintile maintained a 20 percent income share. However, the quintile ranged from 1.90 to 62.90 percent, reflecting the diverse range of surveyed countries and their varying degrees of affliction by income inequality, where the top income quintile in some countries could retain up to three times their proportionate share of income. All macroeconomic variables introduced in Panel A were retained with the same summary statistics. Specifications of the model used for the regressions in Panel B follow the same method as the model in Panel A but applied to $Share_{iq,t}$ representing the change in income share retained by an income quintile, and with the inclusion of another dimension q , representing the specific income quintile.

In Panel C, summary statistics for household financial instruments, particularly disposable income, spending, financial assets, and net worth, exhibited minimal variance, likely due to the economic homogeneity of the countries included within this particular analysis. The specifications of the model utilized for the regressions in Panel C are similar to those in Panels A and B, comprising $\ln(Value_{ikt})$, which represents the logarithmic change in the value of a particular asset k in addition to i and t . Summary statistics for each of the variables included within Panels A through C are shown in Table 1 on the next page.

Table 1. Summary Statistics

| <i>Variable</i> | <i>Mean</i> | <i>Standard Deviation</i> | <i>Minimum</i> | <i>Maximum</i> | <i>Number of Observations</i> |
|---|-------------|---------------------------|----------------|----------------|-------------------------------|
| Panel A: Country Gini Coefficients | | | | | |
| Gini Coefficient | 36.40 | 8.36 | 24 | 59.50 | 629 |
| Interest Rates | 5.21 | 6.10 | -0.69 | 59.25 | 629 |
| GDP | 2.96 | 3.71 | -14.76 | 25.18 | 629 |
| Inflation | 4.35 | 5.73 | -15.81 | 59.22 | 629 |
| Unemployment | 7.88 | 4.14 | 2.25 | 27.47 | 629 |
| Panel B: Country Income Quintiles | | | | | |
| Income Share | 20 | 13.28 | 1.90 | 62.90 | 3145 |
| Interest Rates | 5.21 | 6.09 | -0.69 | 59.25 | 3145 |
| GDP | 2.96 | 3.70 | -14.76 | 25.18 | 3145 |
| Inflation | 4.35 | 5.72 | -15.81 | 59.22 | 3145 |
| Unemployment | 7.88 | 4.14 | 2.25 | 27.47 | 3145 |
| Panel C: Household Financial Instruments | | | | | |
| Disposable Income | 10.02 | 0.41 | 8.63 | 10.91 | 629 |
| Spending | 12.40 | 1.52 | 9.12 | 16.49 | 629 |
| Savings Rate | 4.63 | 5.78 | -17.39 | 18.80 | 612 |
| Debt | 4.56 | 0.75 | 0.95 | 5.83 | 578 |
| Financial Assets | 10.89 | 0.88 | 8.76 | 12.57 | 595 |
| Net Worth | 5.93 | 0.32 | 4.90 | 6.61 | 510 |
| Interest Rates | 2.75 | 3.29 | -0.78 | 26 | 629 |
| GDP | 13.09 | 1.46 | 9.80 | 16.88 | 629 |
| Inflation | 2.64 | 2.78 | -4.48 | 21.60 | 629 |
| Unemployment | 7.76 | 4.05 | 2.02 | 27.49 | 595 |

For a hundred basis-point increase in central bank interest rates, the Gini coefficient in high-income economies increased by 11.5 percentage points, results that were significant at 99 percent. Similarly, for a hundred basis-point increase in central bank interest rates, the Gini coefficient in upper-middle income countries increased by 18.6 percentage points. Therefore, expansionary monetary policy through which central banks reduce interest rates to spur economic activity has a positive effect on reducing income inequality in these economies.

However, for a hundred basis-point increase in central bank interest rates, the Gini coefficient in low-income economies increases by well over 80 percentage points. This significant jump could be attributed to increased income inequality, which is generally more prevalent within lower-middle

income and low-income countries.¹⁸ This suggests that expansionary monetary policy retains a multiplier effect based on the prevalence of income inequality at that time. In other words, countries with more room in terms of income inequality could see a larger effect when deploying conventional monetary policy.

Of all other macroeconomic variables included in Panel A, unemployment was a consistently significant co-factor in reducing income inequality, with similar albeit larger multiplier effects among countries within different wealth brackets. The models explain between 6.5 and 7.5 percent of the variation in income inequality in high-income and upper-middle income economies, and 47.3 percent of such variation in income inequality in lower-middle income economies, which indicates that monetary policy may be particularly effective when used by the latter given fewer confounding factors. The full results are shown below in Table 2, including coefficients and t-values in parentheses.

Table 2. Effect of Central Bank Policy Rates on Countries' Gini Coefficient (Panel A)

| | All Countries | High Income Countries | Upper-Middle Income Countries | Lower-Middle Income Countries |
|--------------------|--------------------|-----------------------|-------------------------------|-------------------------------|
| | (1) | (2) | (3) | (4) |
| Interest Rates | 0.281*** (4.33) | 0.115*** (0.97) | 0.186** (2.23) | 0.821** (2.43) |
| GDP | 0.140*** (5.75) | 0.058 (0.083) | -0.145 (-0.98) | 0.090 (0.40) |
| Inflation | 0.092*** (4.93) | 0.262 (1.58) | -0.172** (-2.08) | 0.314 (1.60) |
| Unemployment | 0.190*** (5.53) | 0.268*** (5.14) | -0.302** (-2.23) | -3.400** (-7.14) |
| Observations | 629 | 323 | 221 | 85 |
| R-Squared | 0.063 | 0.087 | 0.082 | 0.498 |
| Adjusted R-Squared | 0.057 | 0.075 | 0.065 | 0.473 |

$$\text{Gini}_{it} = \alpha + \beta_1 \text{Irate}_{it} + \ln(\beta_2 X_{it}) + \delta_t + \mu_{it}$$

Dependent Variable: Gini Coefficient

* = 90% Confidence ** = 95% Confidence *** = 99% Confidence

When disaggregating by income quintile in Panel B, a hundred basis-point increase in central bank interest rates generates a 30 to 60 percentage point reduction in the share of income held by the top income quintile across high-income, upper-middle income, and lower-middle income econ-

omies. Conversely, a hundred basis-point increase in central bank interest rates generates a modest increase between 3 and 20 percent in the share of income held by the first- and second-income quintiles. These results further confirm the redistributive properties of expansionary monetary

These results further confirm the redistributive properties of expansionary monetary policy, as households in lower income quintiles are more likely to increase their share of income as compared to those in higher income quintiles.

policy, as households in lower income quintiles are more likely to increase their share of income as compared to those in higher income quintiles. They also confirm the presence of a multiplier effect across income quintiles among countries in different wealth brackets. While the share of income held amongst the top quintile of households within high income countries decreases by 30 percentage points for a hundred basis-point increase in central bank interest rates, the share of income

held amongst the top quintile of households in lower-middle income countries decreases by 61.8 percentage points. Similarly, the models in Panel B account for between 5 and 20 percent of the variation in income share for high-income as well as upper-middle income countries, and between 33 and 50.1 percent of such variation in income inequality in lower-middle income economies. As in Panel A, unemployment was the only consistent cofactor in reducing income inequality besides central bank interest rates. The full results are shown below in Table 3, including coefficients and t-values in parentheses.

Table 3. Effect of Central Bank Policy Rates by Income Quintile (Panel B)

| | | 1st Quintile (1) | 2nd Quintile (2) | 3rd Quintile (3) | 4th Quintile (4) | 5th Quintile (5) |
|---|-----------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| High Income Countries | Interest Rates | 0.086* (2.56) | 0.031 (0.98) | -0.015 (-0.67) | -0.072*** (-5.05) | -0.301*** (-0.36) |
| | GDP | -0.005 (-0.27) | -0.016 (-0.87) | -0.023* (-1.79) | -0.004 (-0.54) | 0.050 (1.01) |
| | Inflation | -0.111** (-2.37) | -0.067 (-1.54) | -0.029 (-0.94) | 0.040** (2.02) | 0.168 (1.42) |
| | Unemployment | -0.117*** (-7.96) | -0.064*** (-4.71) | -0.161* (-1.69) | 0.028*** (4.56) | 0.169*** (4.54) |
| | Observations | 323 | 323 | 323 | 323 | 323 |
| | R-Squared | 0.211 | 0.074 | 0.021 | 0.178 | 0.064 |
| | Adjusted R-Squared | 0.201 | 0.062 | 0.001 | 0.167 | 0.052 |
| Upper- Middle Income Countries | Interest Rates | 0.031 (1.55) | 0.042** (2.02) | 0.052*** (2.84) | 0.046*** (3.78) | -0.170*** (-2.51) |
| | GDP | 0.030 (0.85) | 0.037 (1.00) | 0.037 (1.12) | 0.025 (1.17) | -0.128 (-1.06) |
| | Inflation | 0.049** (2.50) | 0.047** (2.31) | 0.029 (1.58) | -0.002 (-0.13) | -0.124* (-1.85) |
| | Unemployment | 0.072** (2.25) | 0.078** (2.32) | 0.068** (2.28) | 0.029 (1.45) | -0.248** (-2.26) |
| | Observations | 221 | 221 | 221 | 221 | 221 |
| | R-Squared | 0.076 | 0.084 | 0.087 | 0.077 | 0.084 |
| | Adjusted R-Squared | 0.059 | 0.067 | 0.071 | 0.060 | 0.067 |
| Lower- Middle Income Countries | Interest Rates | -0.072** (-5.05) | 0.200** (2.33) | 0.156*** (2.31) | 0.030 (0.93) | -0.618*** (-2.36) |
| | GDP | -0.004 (-0.54) | -0.032 (-0.57) | -0.382 (-0.86) | -0.020 (-0.91) | 0.091 (0.53) |
| | Inflation | 0.040 (2.02) | -0.077 (-1.55) | -0.063 (-1.61) | -0.019 (-1.00) | 0.242 (1.59) |
| | Unemployment | 0.028*** (4.56) | 0.876*** (7.21) | 0.678*** (7.12) | 0.252*** (5.46) | -2.649*** (-7.15) |
| | Observations | 85 | 85 | 85 | 85 | 85 |
| | R-Squared | 0.479 | 0.501 | 0.495 | 0.330 | 0.496 |
| | Adjusted R-Squared | 0.453 | 0.576 | 0.496 | 0.270 | 0.471 |

$$\text{Share}_{\text{iqt}} = \alpha + \beta_1 \text{IRate} + \ln(\beta_2 X_{\text{iqt}}) + \delta_{\text{iqt}} + \mu_{\text{iqt}}$$

Dependent Variable: Income Quintile

* = 90% Confidence ** = 95% Confidence *** = 99% Confidence

Finally, central bank interest rates produce statistically significant consequences for the change in disposable income, household spending, financial assets, and net worth. For a hundred basis-point increase in central bank interest rates, disposable income is reduced by 1.1 percentage points while spending is reduced by just 0.02 percentage points. This relationship between central bank interest rate and disposable income is a cornerstone in macroeconomic theory, whereby higher interest rates increase borrowing costs and thus reduce spending. By contrast, for a hundred basis-point increase in central bank interest rates, financial assets increased by 1.5 percentage points and net worth increased by 1.6 percentage points.

According to the Organization for Economic Cooperation and Development (OECD), financial assets include savings deposits, stocks, bonds, real estate, and other equity investments. Therefore, when central bank interest rates decrease due to expansionary monetary policy, their value will rise in tandem. Additionally, the OECD defines net worth as financial and non-financial assets held by households. The positive reaction of net worth to an increase in central bank interest rates suggests, at least among this sample of mostly high-income countries, that households retain a greater share of financial assets which appreciate during bouts of expansionary monetary policy and depreciate during bouts of contractionary monetary policy. The results indicate that these assets are also affected by GDP and unemployment, which are, in turn, directly affected by central bank interest rates. This suggests that these models may contain some multicollinearity. The full results are shown below in Table 4, including coefficients and t-values in parentheses.

**TABLE 4. EFFECT OF CENTRAL BANK POLICY RATES ON
HOUSEHOLD FINANCES (PANEL C)**

| | Disposable Income (1) | Spending (2) | Savings (3) | Debt (4) | Financial Assets (5) | Net Worth (6) |
|-----------------------|-----------------------------|---------------------|--------------------|--------------------|----------------------------|---------------------|
| Interest Rates | -0.013*** (-6.16) | 0.002* (1.90) | -0.002 (-0.02) | 0.008 (1.15) | 0.011*** (-2.73) | 0.016*** (-5.80) |
| GDP | 0.562*** (35.17) | 0.907*** (96.44) | 1.524*** (3.61) | 0.380*** (9.15) | 0.981*** (32.90) | 0.148*** (8.49) |
| Inflation | 0.006*** (2.67) | 0.001 (0.70) | -0.076 (-0.92) | 0.014** (2.01) | -0.013*** (-2.88) | 0.000 (0.14) |
| Unemployment | -0.008*** (5.53) | 0.002 (0.24) | -0.024 (-0.51) | 0.013*** (3.66) | -0.006** (-2.40) | -0.001 (-0.63) |
| Observations | 595 | 595 | 578 | 561 | 578 | 510 |
| R-Squared | 0.151 | 0.991 | 0.086 | 0.004 | 0.143 | 0.2110 |
| Adjusted R-Squared | 0.172 | 0.989 | 0.074 | 0.006 | 0.163 | 0.2195 |

$$\ln(\text{Value}_{ikt}) = \alpha + \beta_1 \text{IRate}_{ikt} + \ln(\beta_2 X_{it}) + \delta_t + \mu_{it}$$

Dependent Variable: Household Financial Instruments

* = 90% Confidence ** = 95% Confidence *** = 99% Confidence

POLICY IMPLICATIONS

My analyses suggest that conventional monetary policy as decided by setting central bank interest rates has a statistically significant impact on income inequality. Expansionary monetary policy increases disposable income and spending levels, which is more likely to benefit low-income households with a higher propensity to consume given additional capital. Conversely, expansionary monetary policy reduces interest on savings, stocks, and other long term financial instruments, which is more likely to hurt high-income households who are more likely to save given additional capital.

For every hundred basis-point increase in central bank interest rates, households in lower income quintiles enlarged their share of income and households in higher income quintiles reduced their share of income, amounting to an effective redistribution of income. Lower-middle income economies experienced a higher multiplier from this income redistribution, while upper-middle income and high-income countries experienced a more muted but statistically significant effect. Furthermore, employment was a consistently significant cofactor for income inequality alongside changes in central bank interest rates, suggesting that labor markets remain

favorable for low-income households given lower interest rates to borrow capital, expand operations, and maintain payrolls.

Hence, my analyses demonstrate the presence of progressive consumption, income, and employment channels by which monetary policy affects income inequality. As mentioned earlier, addressing income inequality is not a direct objective of monetary policy; however, accounting for this externality could enable the economic benefits fostered by adjustments in central bank interest rates to have a larger multiplier effect for those on the lower end of the income spectrum. To achieve this goal, central banks would have to reconsider their tolerance for inflation, as well as the specific thresholds by which the risks of price instability pose a greater threat to economic growth than maximum employment. Therefore, by reserving contractionary monetary policy for instances where inflation concerns genuinely warrant intervention via reduced support, central banks can rely on expansionary monetary policy to generate favorable economic conditions that are more likely to benefit low-income households over high-income households. Most central banks depend on a 2 percent annual inflation target to signal contractionary monetary policy, but this metric is becoming obsolete as aging demographics, increased productivity, and lower price volatility have enabled global inflation to trend substantially below this target, despite efforts to foster its rise.¹⁹ By switching to a price-level change, nominal GDP target, or even a higher threshold for annual inflation, central banks can maintain interest rates lower for longer while effecting consumption, income, and employment benefits.²⁰

There are several avenues for additional research based on my results. First, as mentioned earlier, many countries have started to adopt unconventional monetary policies such as asset purchases, forward guidance, and even certain macroprudential regulations, such as capital buffers and leverage restrictions, due to the limits of conventional monetary policy when overused or depleted. Unfortunately, statistics concerning the size and scope of these policies, especially among countries on the lower end of the income spectrum, are not always available, making it difficult to draw comparisons at an international level. This means that lessons learned from one country may not always apply to another, and studies which do attempt to analyze these relationships at an international level will always be affected by bias given the limited congruency between the datapoints gleaned among all surveyed countries. Therefore, it would be useful to explore alternative sources of data to analyze differences between countries and their uses of unconventional monetary policies. Second, the effects of conventional monetary policy can wane over time as inflation expectations or changes in the macroeconomic environment render households, businesses, and other facets of the economy more

impervious to adjustments to their spending habits. It would be useful to examine the lagged effects of central bank interest rates on income inequality by tracking changes in income inequality over time after interest rate adjustment. Finally, after analyzing the effects of conventional monetary policy on different aspects of household financial instruments, it would be useful to examine the distribution of particular assets—such as savings accounts or stocks—by income bracket to ascertain the distribution of effects from central bank interest rates on households based on what they own.

CONCLUSION

The international economy may soon recover fully from the second of two consecutive historic recessions—the “Great Recession” of 2008 and COVID-19 recession of 2020—yet faces a long road ahead in managing increased income inequality engendered by these crises. As policymakers consider the main drivers of income inequality, specifically during periods of contraction, they should also examine the impact of their economic responses to such crises, starting with conventional monetary policy. In this paper, I developed an outline for additional research by identifying some of the channels that enable monetary policy to influence income inequality, as well as variance in this relationship by individual income quintiles, country wealth brackets, and household financial instruments.

Policymakers, and especially central banks, should reconsider their approach to conventional monetary policy, starting with rethinking their thresholds by which to increase interest rates as a maneuver against inflation in the name of price stability.

After exploring the influence of monetary policy on income equality among nearly forty countries and over nearly two decades, I ascertained the presence of vital progressive consumption, income, and employment channels by which expansionary monetary policy benefits those on the lower end of the income spectrum. Specifically, increases in central bank interest rates benefit low-income households by increasing discretionary income and augmenting their capacity to spend. Conversely, it reduces premiums on long term financial assets which are more likely to be held by high-income households. Furthermore, these dynamics have a greater effect on lower-middle income countries with higher extremes in income inequality and fewer confounding factors than within upper-middle income countries and high-income countries.

Based on these results, policymakers, and especially central banks, should reconsider their approach to conventional monetary policy, starting with rethinking their thresholds by which to increase interest rates as a maneuver against inflation in the name of price stability. By being flexible with the framework of a 2 percent annual inflation target, central banks should evaluate other benchmarks, such as different price levels or a nominal GDP target, which permit them to maintain an accommodative monetary policy stance over longer periods of time. While addressing income inequality is not an inherent objective of monetary policy, considering the direct and indirect consequences of income inequality on this critical component of economic prosperity will enable policymakers to generate more equitable recovery, which allows for all facets of the economy at-large to realize a brighter financial future. *f*

ENDNOTES

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