What Higher Interest Rates Could Mean for You

By Adrien Auclert

After eight years of zero interest rates, the Fed is likely to start raising the federal funds rate this winter, which will in turn increase the interest rate on all types of assets and liabilities across our nation.

Not everyone will be equally affected by those changes. Prospective homebuyers will see the cost of taking a new mortgage increase. Current adjustable-rate mortgage holders will see their monthly payments rise. Those who rely on fixed investments such as CDs will be getting higher returns. And those who own stocks will likely see the value of their portfolio decline. You may be in several of these categories simultaneously. So, do you personally stand to gain or to lose from this coming cycle of increases in interest rates?

This question is at the heart of what economists call the redistributive effects of monetary policy. In a recent research paper, I use basic economic theory to understand these effects and their widespread implications whenever a central bank such as the Fed changes interest rates.

I also show that these effects can help us explain why the Fed can affect economic activity, providing a perspective that is absent from standard macroeconomic models — including those currently in use at the Fed itself.

Lower prices, higher returns

Tightening monetary policy creates many sources of redistributive effects, but let’s start with the effect of changing rates of return. Suppose you own a portfolio of bonds. You may worry that higher interest rates will lower the prices of these bonds and make you worse off. But have you thought of the fact that returns will also be higher?

More specifically, suppose that you own a bond that (for simplicity) pays twice, $500 this year and $500 next year. Assume that the current interest rate is zero, so that the price of your bond in financial markets is $1,000. If the Fed does increase interest rates, financial markets will discount these coupon payments more heavily, so the price of your bond will fall. But this does not necessarily make you worse off.

To understand this point, let’s think about what you were planning to do with the bond. Perhaps you had planned to sell it and spend $1,000 this year. Then the increase in rates is indeed bad news — the same bond now sells for less, and you may have to spend less as a result. But perhaps you had no use for this year’s $500 dividend and were planning to reinvest it so as to spend $1,000 the following year. With rates higher and prices lower, you will now get a higher return on this reinvestment. In other words — and very intuitively — reduced bond prices are bad for you if you plan to sell. But they are good for you if you plan to buy.

About the Author

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You can now probably see that if you were just planning to spend the $500 dividend this year, then you have no need to buy or sell, and hence the monetary policy change leaves you indifferent. In this case, the asset price effect and the return effect of monetary policy exactly cancel each other out. This logic explains why it is wise to choose your portfolios such that annual dividend or annuity payments reflect your target level of spending: In this way, changes in returns induced by monetary policy do not affect you directly. This logic also explains why it is incorrect to claim that the low interest rates of the past few years benefited asset holders by boosting asset prices. The reality is subtler, since asset holders were also hurt by low returns; the key question is how the timing of their dividend payments differed from the timing of their spending.

The argument applies for all sorts of assets such as bonds and stocks, but it also applies for liabilities such as mortgages. If you have an adjustable-rate mortgage or if you are a prospective homebuyer, the return effect will hurt you because it will raise your mortgage payments.

If you have a fixed-rate mortgage, you will be less affected because your mortgage payments will not change. Economically, this is because there is an asset price effect (the market value of your mortgage will fall) that will partly or completely offset the return effect.

### Cooling down the economy

In practice, some will gain from the change in returns and likely increase their spending on goods and services as a consequence, while others will lose and likely reduce their spending.

In my research paper, I argue that the available data in the U.S. suggests that the aggregate effect of this redistribution is likely to be negative following a rate increase, because those who lose will probably lower spending by more than those who gain will increase it.

Therefore, this effect could result in lower overall spending — which is exactly what the Fed is trying to achieve with this increase in interest rates.

By many measures the economy is now close to full employment and inflationary pressure is increasing. In order not to risk exhausting the productive capacity of businesses — which would lead them to raise prices — a higher Federal Funds rate is needed. Recognizing that some of this cooling down of activity might be the result of redistributive effects is a key contribution of my paper.

Figure 1 illustrates my argument. It shows estimates of what economists call marginal propensities to consume, or MPCs — the amount that someone tends to spend on nondurable goods such as haircuts, clothes, or gourmet food when given an extra dollar.

These MPCs are plotted for groups that have different exposures to interest rate changes, as constructed from their reported spending, income, and asset portfolio.

Specifically, I ranked households according to how much they would lose or benefit from a hypothetical increase in interest rates and then grouped them in increasing order of this measure of net benefit, from the group that would be hurt the most (on the left) to the group that would benefit the most (on the right).

The numbers on this figure are from 2001, when the federal government sent out rebate checks and many families received a one-time financial boost: The y-axis plots the fraction of the rebate that households spent on average at the time they received it.1

Toward the left of the figure are MPC estimates for households that stand to lose the most from the increase in interest rates, say because they have

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1 This MPC is estimated, following Johnson et al. 2006, using the fact that not all households received that check at the same time.
an adjustable-rate mortgage. These households have high MPCs and are therefore likely to reduce their spending when rates go up.

Moving toward the right of the figure, the estimates are for groups of households that tend to gain more from an increase in returns, say because they have large amounts of short-term CDs. The evidence is that these groups tend to have low MPCs on average and therefore are not expected to increase spending much when interest rates increase.

Summing up, this redistribution-induced reduction in spending could be one reason that the Fed might reduce the spending pressure on the economy starting next year.

**Inflation and income**

While return changes are an important source of redistributive effects of monetary policy, they are not the only one. One important reason that the Fed is likely to raise interest rates is because it would like to prevent inflation from increasing too rapidly and overshooting its official 2 percent target.

Inflation is an important source of redistributive effects in its own right, because many financial contracts such as bonds and mortgages are nominal: They have fixed payments in dollars, and inflation lowers the amount of goods that future dollars will buy. Holders of nominal assets, such as CDs or T-bills, would lose out if inflation was to pick up, while holders of nominal liabilities, such as mortgages, would benefit. This would be particularly true for holders of long-maturity nominal assets, such as 10-year Treasuries, if inflation was to overshoot its target for a long time.

In the United States, nominal assets tend to be held by older, richer households. They would lose the most if inflation was to pick up. On the other hand, nominal liabilities such as fixed-rate mortgages tend to be held by younger, middle-class households, and these groups would benefit from an increase in inflation (Doepke and Schneider 2006).

Keeping inflation on target helps to ensure the stability of the real value of nominal contracts and encourage debtors and creditors to sign those contracts. Another reason that the Fed would like to avoid inflation could be to prevent it from affecting aggregate spending at a time where the economy is already overheating.

Economists have long argued that, over the short run, high inflation tends to be associated with high levels of aggregate economic

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**Figure 1: Marginal propensity to consume and exposure to interest rates**
activity, a phenomenon known as the Phillips curve. Part of this may be due to the fact that winners and losers from inflation have different marginal propensities to consume. The empirical evidence on the correlation between MPCs and net holdings of nominal assets is not as clean as it is for exposures to interest rates (Figure 2), but it does go in the same direction as the Phillips curve relationship.

A final redistributive effect that is important to acknowledge is the one that would result from a slowdown in economic activity. Such a slowdown would not affect everyone equally: Retired individuals would probably not see much of an effect on their income, while individuals in cyclical industries such as construction would potentially be affected to a much greater extent. If those individuals respond to reduced incomes by cutting spending very sharply, then again the Fed would be achieving its objective of reducing inflationary pressure more rapidly.

**Policy implications**

The three redistributive effects mentioned in this policy brief — those that are due to changes in returns, inflation, and economic activity — are not an exhaustive list. The Fed might redistribute along other dimensions as well. It is possible that the current plan to unwind asset purchases might disproportionately affect the owners of risky assets.

Moreover, monetary policy’s redistributive effects do not take place only within the household sector. All the effects mentioned above also affect the government, the banking sector, and foreigners in different ways. The presence of this multitude of effects makes the analysis challenging, yet incredibly important, and other authors have started work along these alternative dimensions (see for example Brunnermeier and Sannikov 2016).

By placing redistribution at the center of what the Fed does, my paper is a first step in recognizing an important component of monetary policy that has so far largely been ignored by macroeconomists. The literature on the topic is now developing very rapidly, and will hopefully soon be integrated into the models used at the Fed for policy analysis and simulations.

Going forward, the insights gleaned from the macroeconomic analysis of redistributive monetary policy, hopefully, will also help policymakers make better informed decisions, address these issues in...
public speeches, and generate a more constructive public debate regarding the effects of changes in interest rates on each one of us.

References


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