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Households' Response to the Wealth Effects of Inflation

Based on BFI Working Paper No. 2023-119 "Households' Response to the Wealth Effects of Inflation," by Michael Weber, Chicago Booth; Philip Schnorpfeil, Goethe University; and Andreas Hackethal, Goethe University

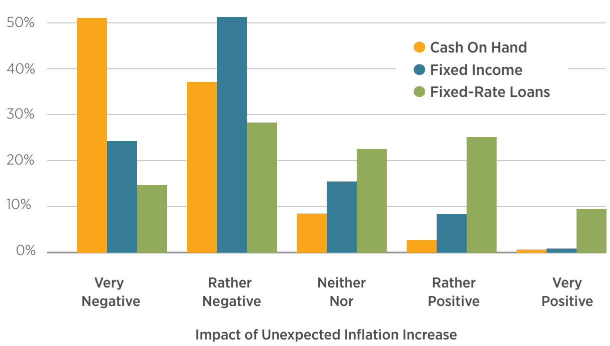
While many households know about inflation and its erosive effect on nominal assets, most are unaware of inflation's erosive impacts on nominal debt. Once they receive information about debt erosion, households update their beliefs about their own real net wealth and even change their consumption choices.

In the same way that inflation drives down the value of savings, it also erodes the real value of debt (so long as the debt has a fixed nominal interest rate). For example, imagine you borrowed $100,000 to buy a house in 1980. With today's levels of inflation, your home is now worth $400,000. But your debt is still for the original $100,000 loan (plus a fixed nominal interest rate). This is good for mortgage holders, who can pay down their debt with devalued dollars; likewise, lenders, who must take dollars that have lost value since the time the loan originated, pay the price. In this paper, the authors study households' awareness of inflation's erosive effects on assets and debts, how this awareness affects their beliefs, and how these beliefs feed into their financing and consumption decisions.

To study these questions, the authors run a randomized control trial (RCT) on customers of a major German bank. Their RCT consists of a multi-part survey with two treatment groups: one in which participants were provided information about inflation-induced erosion of assets, and another in which participants were provided with information about inflation-induced erosion of debt. All groups received information about the current level of inflation, but the control group did not receive information of its impact on debt or assets. Following this information treatment, the authors queried all three groups concerning their economic beliefs and hypothetical and planned economic choices. They also tracked their actual spending using administrative bank data. Finally, the authors collected information

Figure 1 • Predicted Impact of Inflation

Survey respondents' responses to the question "What do you think, is an unexpected increase in inflation positive or negative for owners of the following financial products?"



Note: The figure highlights the asymmetry in households' awareness of inflation's erosive impact on assets versus debt; while a large share of respondents view inflation as harmful to cash on hand, relatively few view it as positive for fixed-rate loans.

about participants' demographics, balance sheets, and additional background characteristics. The authors compare the groups to isolate the effects of their information treatments, and find the following:

- While households are well aware of inflation's erosive impact on assets, they tend to be less aware that inflation also erodes debt. Seventy-five percent of respondents believe the impact of unexpected inflation on fixed-rate savings products is very negative or negative. However, only 9% of respondents believe the impact of unexpected inflation on fixed-rate loans is very positive and 25% believe it is positive.

- Both information treatments affect households' perceptions of how well different assets protect against inflation. When asked to rank balance sheet items (such as cash and loans) in terms of their inflation protection, the savings-erosion treatment group assigned a worse inflation-protection rank to savings products than the control group, while the debt-erosion treatment group tended to rank loans more favorably. In addition, the debt-erosion information treatment reduced respondents' overall debt aversion, suggesting that the effects of information extend beyond the context of inflation.

- Both information treatments also affect households' perceptions of their net worth. Respondents who receive the savings-erosion information estimate their change in real net wealth over the past and next 12 months 1.6–1.8 percentage points lower than respondents in the control group, while respondents in the debt-erosion treatment increase their wealth estimates relative to the control group by 2.5–2.9 percentage points. This effect is large: it corresponds to around 50% of the average estimate of -5.6% in the control group.

- The negative average effect of the savings-erosion treatment on households' wealth perception is driven modestly by net savers (respondents with positive nominal positions), and the positive average effect of the debt-erosion treatment is driven by net debtors (those with a negative nominal position). The sensitivity of the perceived-wealth effect of the loan treatment is strongest for respondents with more education or relatively high interest in the topic of inflation.

- Learning about inflation-induced debt erosion leads to higher planned and actual spending. The debt-erosion treatment increases households' planned spending by 11% of a standard deviation, and their actual spending by €187 in the 60 days following the information treatment.

- The authors use these results to estimate households' marginal propensities to consume (MPC), or, the proportion of new wealth that they will spend on consumption. Consistent with prior literature, they estimate an MPC of close to 3%.

- Learning about inflation-induced debt erosion also leads households to choose a higher share of debt financing in a hypothetical real estate investment. Moreover, the debt-erosion treatment tilts participants' mortgage preferences towards fixed- rather than adjustable- rate mortgages, with longer fixed periods for nominal interest rates. These choices likely reflect treatment-induced shifts in beliefs about the inflation-hedging properties of long-maturity fixed debt and an accompanying reduction in debt aversion.

The authors' RCT was implemented in July 2022, when inflation in Germany was at a 70-year high of 8.7%. Despite this, the participants were relatively unaware of how record-high inflation impacts their debt, suggesting suboptimal debt choices, both among Germans but likely more broadly as well. In addition, the fact that more educated survey participants were better informed about inflation-induced asset and debt erosion raises the concern of a countervailing redistribution from less to more informed households. The authors suggest that this concern could be countervailed, possibly through information campaigns and robo-advising.

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