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Different Consumption Responses to Equivalent Changes in the Real Interest Rate.*

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Abstract

We study how individuals adjust consumption in response to changes in the real interest rate using a large, preregistered, within-subject survey experiment on a representative sample of the German population. Respondents evaluate hypothetical scenarios in which the real interest rate rises by five percentage points through either an increase in the nominal interest rate or an equivalent decline in inflation. While classic intertemporal choice models predict identical responses across these scenarios, we find a clear asymmetry: respondents plan sizable cuts in consumption, higher saving, and lower borrowing when nominal rates increase, yet adjust these margins much less when inflation falls. Differences in perceived wealth effects may contribute to this asymmetry, but they cannot fully explain it. Rising nominal interest rates appear to provide stronger incentives to increase saving and avoid borrowing than does declining inflation. Declining inflation is also associated with more contradictory choices, for example, reporting higher consumption and higher saving while leaving borrowing unchanged. Together, these findings suggest that respondents more readily internalize the consequences of nominal interest rate changes than of disinflation, which has implications for the design and communication of monetary policy.

Keywords Consumption & Saving · Real Interest Rate · Inflation Expectations · Household Survey

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1 Introduction

Central banks seek to influence household spending by changing nominal interest rates and by communicating to target inflation expectations. In benchmark consumption–saving models, both channels operate through the real interest rate: holding purchasing power fixed, nominal interest rates and expected inflation affect intertemporal choices only through the real return (Fisher, 1930; Modigliani and Brumberg, 1954; Jappelli and Pistaferri, 2017). Hence, an increase in the nominal interest rate and an equal-sized decrease in expected inflation should produce the same adjustment in consumption, saving, and borrowing. This equivalence is a useful organizing principle for analyzing monetary transmission, provided households translate both nominal rates and inflation into the relevant real trade-offs when planning their consumption and savings choices.

However, a growing body of evidence suggests that this translation may be imperfect. Many individuals have difficulty reasoning in real terms and understanding the consequences of inflation (Lusardi and Mitchell, 2014; Kaiser et al., 2022; Stantcheva, 2024). In particular, households often struggle to infer how inflation shocks affect balance sheets, most notably by changing the real burden of debt (Schnorpfeil et al., 2023; Binetti et al., 2024), and, more broadly, how they alter the real value of assets, debt, and income (Kocharkov et al., 2025). One reason is that nominal interest rates are a familiar and directly interpretable price of saving and borrowing, whereas extracting the equivalent implication from a change in inflation requires an additional inference step, namely mapping price-level dynamics into real returns and into real revaluation of nominal positions (Shafir et al., 1997). If this inference is costly or incomplete, the two components of the real interest rate need not be interchangeable, and the transmission of monetary policy may depend on whether the real-rate change is conveyed through nominal rates or through expected inflation. Importantly, such an asymmetry need not reflect incorrect inflation beliefs: even when inflation changes are stated explicitly, households may fail to fully translate them into real trade-offs.

We test this asymmetry directly using a large-scale, preregistered survey experiment with a representative sample of German households from the Bundesbank Online Panel—Households (BOP-HH). Each respondent evaluates two hypothetical vignettes, presented in randomized order, designed to generate the same five-percentage-point increase in the real interest rate through different channels. In the *Interest* vignette, nominal interest

rates rise while inflation is held fixed. In the *Inflation* vignette, expected inflation declines while nominal interest rates are held fixed, with income assumed to grow at the inflation rate so that purchasing power is unaffected. In each vignette, respondents report how they would adjust durable consumption, non-durable consumption, saving, and borrowing over the next twelve months. Because each individual answers both vignettes, cross-vignette differences are not driven by time-invariant respondent characteristics and can be causally attributed to the different framing of the real-interest increase.

Respondents who base their consumption decisions on the real interest rate should adjust their consumption equally in both scenarios. Yet, our results reject this benchmark equivalence between vignettes. Respondents plan substantially larger cuts in both durable and non-durable consumption when the real-rate increase is communicated through higher nominal interest rates than when it is communicated through lower expected inflation. Among respondents whose answers differ across vignettes, those who cut consumption more under the nominal-rate framing outnumber those who cut more under disinflation by about three-to-one for durables and about four-to-one for non-durables. Planned saving and borrowing mirror this pattern: respondents save more and borrow less under the nominal-rate scenario, with the borrowing asymmetry particularly pronounced. The failure of equivalence thus appears across all four elicited margins of intertemporal adjustment.

What explains such asymmetry across vignettes? One potential driver could be differential internalization of wealth effects. When nominal rates rise, planned consumption varies systematically with respondents' balance-sheet positions: wealthier households cut consumption less and more indebted households cut more, consistent with respondents recognizing that higher nominal rates raise the return on saving but also debt service costs. When the same real-rate increase occurs through disinflation, the corresponding wealth gradient is substantially attenuated or absent, as if respondents were less likely to translate lower inflation into equivalent changes in the real value of nominal assets. Debt remains negatively associated with planned consumption in both scenarios, but this association is weaker under the inflation framing. In line with this interpretation, internally inconsistent consumption–saving–borrowing plans are significantly more frequent under the inflation scenario, suggesting that disinflation is harder to map onto coherent intertemporal budget decisions.

There is only one sociodemographic factor that consistently affects the differences across vignettes: older respondents give more similar answers across scenarios. A university degree has no impact on the difference between consumption responses and even widens the gap between vignettes for saving. This casts doubt on financial literacy or cognitive abilities being drivers of the observed differences. Balance-sheet variables explain some heterogeneity, with lower wealth associated with larger gaps in non-durable consumption and saving, and higher debt associated with larger magnitude gaps for saving and borrowing. Respondents with higher inflation expectations show smaller directional discrepancies in saving and borrowing. Importantly, the core asymmetry between the nominal-rate and inflation scenarios remains large and statistically significant after controlling for the full set of preregistered covariates, including balance-sheet positions, preferences, demographics, and vignette order. Observable heterogeneity, therefore, does not explain the core framing gap.

Our paper relates to a large literature on how inflation expectations and interest rates shape household spending decisions (Ichiue and Nishiguchi, 2015; Crump et al., 2022; Bachmann et al., 2015; Burke and Ozdagli, 2023; Dräger and Nghiem, 2021). In many empirical settings, expected inflation and nominal interest rates are jointly determined—because of common macroeconomic shocks and because respondents who expect higher inflation may also expect policy rate responses—which complicates isolating behavioral responses to each component separately. Our within-subject vignette design addresses this challenge by construction: the same respondent evaluates two scenarios that imply the same real-rate increase through different channels, allowing us to test whether the channel matters while holding time-invariant respondent characteristics fixed. Methodologically, we build on a growing body of survey experiments that use hypothetical scenarios (e.g., Jappelli and Pistaferri, 2014; Christelis et al., 2019; Fuster et al., 2020; Stantcheva, 2023) or information provision treatments (e.g., Haaland et al., 2023; Coibion et al., 2023, 2022) to generate experimentally induced variation in stated expectations and stated plans.

These findings have implications for both theory and policy. On the theory side, benchmark consumption–saving models treat the real interest rate as a sufficient statistic for intertemporal choice. Our evidence suggests that the channel through which a real-rate change is communicated matters beyond the implied change in the real return, motivating models that allow component-specific sensitivity to nominal-rate versus infla-

tion information. On the policy side, if households respond more to nominal-rate changes than to equivalent shifts in expected inflation when forming plans, then analyses that summarize transmission solely through the real rate may overstate the role of inflation expectations for household decision-making. This perspective suggests that communications emphasizing the nominal-rate path may have a more pronounced effect on spending, saving, and borrowing plans than communications emphasizing inflation targets, and that forward guidance framed around future interest rates may transmit more directly than guidance framed around future inflation.

The remainder of this paper is organized as follows: we describe and motivate our survey design in Section 2, derive our hypotheses in Section 3, present our findings in Section 4, and conclude in Section 5.

2 Survey Design

The experiment was conducted in the August 2023 wave (Wave 44) of the Bundesbank Online Panel—Households (BOP-HH) survey. This monthly online survey, which has been running since 2019, gathers consumer expectations on economic indicators from a representative sample of around 6,000 German households.[1]

Our module consisted of two vignettes presented consecutively in a randomized order. The first vignette (*Interest*) introduced a scenario in which the real interest rate increased due to a rise in the nominal interest rate, while inflation remained constant. The second vignette (*Inflation*) induced a symmetric increase in the real interest rate by reducing inflation with nominal interest rates held constant. In both scenarios, purchasing power in real terms was kept constant; in the *Inflation* vignette, this was ensured by assuming that income grew at the same rate as inflation. Specifically, the vignettes read:

Vignette 1 (Interest): Imagine that all interest rates increase by five percentage points today. Please also assume that your income and inflation remain unchanged, so your purchasing power (i.e., the amount of goods and services you can buy with your income) is unaffected.

[1]For details on the panel and how to gain access to the data, visit: https://www.bundesbank.de/en/bundesbank/research/survey-on-consumer-expectations-bop-hh

Table 1: Description of main variables

Label	Text of the Question	Likert scale 1 - 7
Question: When you think about your plans for the next twelve months, how do you think these higher interest rates (this lower inflation) would affect your consumption and saving plans? Would you be more or less inclined to...		
Durables	... buy consumer durables such as clothing, furniture, electronic equipment	Much less - Much more
Non-durables	... go to restaurants, bars, concerts or similar	Much less - Much more
Save	... save	Much less - Much more
Borrow	... borrow money or take credit	Much less - Much more

Vignette 2 (Inflation): Imagine that inflation decreases by five percentage points over the next twelve months. Please also assume that all interest rates remain unchanged and your income increases at the same rate as prices, so your purchasing power (i.e., the amount of goods and services you can buy with your income) is unaffected.

In each vignette, respondents were asked to report how they would adjust their consumption of durable and non-durable goods, as well as their saving and borrowing behavior, using a Likert scale ranging from 1 to 7, as described in Table 1. This approach provided four measures per participant. By comparing these measures across the two vignettes *within subject*, we can isolate the variation in behavior induced by an increase in nominal interest rates from that induced by a reduction in inflation, without confounding effects from income, wealth, debt, preferences, or demographic variables.

Because risk and time preference may affect consumption and saving decisions, we elicited respondents' willingness to take risks and to delay gratification using two questions from Falk et al. (2023). Finally, we include other variables from the BOP-HH panel for our analysis. These are inflation expectations, wealth, debt, income, age, education, and gender.

2.1 Discussion

Our experiment uses hypothetical questions in line with the recent literature on survey design (Haaland et al., 2023; Stantcheva, 2023). The advantage of this approach is that it helps us to control macroeconomic confounders. For example, a higher nominal interest rate may result from the central bank's attempt to tame inflation in a booming economy. In that case, respondents may associate a higher nominal interest rate with rising personal income and different future inflation levels, depending on their trust in the central bank (Andre et al., 2024). By explicitly stating that their income and future inflation remain unchanged, we provide respondents with an idealized experiment in which only the real interest rate changes, while everything else is held constant. This is an advantage over surveys that ask respondents about their beliefs on, for example, expected inflation. In these surveys, consumers who expect higher inflation may also expect changes in other variables, such as their personal income or nominal interest rates.

Another advantage of the hypothetical vignettes is that they allow us to examine symmetric scenarios in which, according to theory, respondents should respond equally. Moreover, presenting respondents with hypothetical scenarios allows us to introduce large shifts in the real interest rate (5-percentage-point), instead of the typical changes in interest rates implemented by central banks, which usually range between 25 and 50 basis points. This difference in magnitude makes the change in real interest rates relevant to respondents, which makes it easier to detect changes in consumption and saving behavior. Our design intentionally accounts for an increase in the real interest rate, not a decrease. A decrease in the real interest rate should increase consumer spending. However, this might be unfeasible if respondents are illiquid or credit-constrained. In contrast, an increase in the real interest rate should lead consumers to reduce their current consumption, a response that is also feasible for credit-constrained households. A decrease in nominal interest rates may also lead to negative interest rates, which households might avoid by cash-hoarding.

Note that our vignettes do not specify an initial level of interest rates or inflation. On the one hand, this could be problematic if respondents' inflation expectations were below 5%, as a five-percentage-point decrease in inflation would imply deflation. While theoretically this should not affect the symmetry of responses across the interest rate increase and inflation drop vignettes, it may still have unintended behavioral effects.

On the other hand, not anchoring respondents' inflation beliefs has several advantages. First, providing an initial level of interest rates or inflation would further distance the vignettes from respondents' current situation. The vignettes ask respondents to imagine future changes to macroeconomic variables that, while substantial, could still occur in the real world. Asking respondents to imagine both this future change *and* a potentially counterfactual current economy seemed too demanding. Second, the BOP-HH survey collects high-quality data on inflation expectations, allowing us to use reported inflation expectations as a control in our analysis.[2] Third, providing an initial inflation value may bias respondents' answers in subsequent survey modules that elicit inflation expectations and other views on the economy.

It is also important to note that the BOP-HH is a panel survey, so its respondents have been asked to consider inflation expectations, interest rates, and other macroeconomic variables multiple times prior to our experiment. As a result, our sample is relatively sophisticated in its understanding of inflation and interest rates compared with the general population. Therefore, any effects we observe in differences across vignettes are likely a lower bound, as any asymmetry in responses to changes in the real interest rate should be more pronounced among less sophisticated respondents.

Next, respondents were asked for changes in *consumption*, not spending. Faced with changing inflation, consumer spending could change either because prices or quantities consumed have changed. Our main hypothesis implies that real demand should be equivalent across both scenarios. By considering a hypothetical change, we can directly measure intended changes in quantities consumed and test this hypothesis. This approach contrasts with many previous studies that measured consumer spending, making it difficult to assess the effect of changes in expected inflation on real consumption in the current planning period.

Finally, our survey experiment follows a within-subject design. This means that for each respondent, we have observations for both vignettes, allowing us to directly compare their responses to changes in the nominal interest rate and inflation. This design improves statistical power by reducing the variability associated with individual differences, as each

[2]Besides controlling for inflation in our regressions, to ensure that deflation beliefs do not affect our results, we preregistered a robustness check in which we restrict our sample to respondents who expect current inflation to be greater than or equal to five percent.

participant serves as their own control. Consequently, we can more precisely estimate the effect of changes in real interest rates on consumption behavior. Additionally, the within-subject design also allows us to identify which subjects respond differently in the two vignettes. We can quantify the share of subjects whose responses differ and analyze their personal characteristics, such as income, wealth, debt, preferences, or demographics.

3 Hypotheses

Planned consumption and portfolio adjustments can be analyzed using a two-period model in which a household maximizes expected utility subject to an intertemporal budget constraint:

$$\max_{C_1} U(C_1, W_2) \quad \text{s.t.} \quad W_2 = (W_1 + Y_1 - C_1)\, R, \qquad R \equiv \frac{1+i}{1+\pi}, \tag{1}$$

where W_1 is initial real wealth, Y_1 real income, C_1 real consumption, W_2 final wealth, i the nominal interest rate, π expected inflation, and R the real expected return. In this setup, an increase in the nominal interest rate has the same effect on the intertemporal budget set as a decrease in the inflation rate. Hence, optimal consumption is affected in the same way, motivating our main preregistered hypotheses:

Hypothesis 1: *Respondents adjust durable and non-durable consumption to the same extent in the* Interest *and* Inflation *vignettes.*

Hypothesis 2: *Respondents adjust saving and borrowing behavior to the same extent in the* Interest *and* Inflation *vignettes.*

3.1 Wealth Effects

A rise in the real return affects current consumption through substitution and wealth effects. The substitution effect reflects the higher relative price of current consumption when R rises, leading individuals to postpone consumption and save more. The wealth effect, by contrast, reflects the change in an individual's overall lifetime resources or utility. If the rising interest rate makes someone effectively wealthier (e.g., due to higher returns on

saving), then current consumption demand may increase despite the substitution incentive to delay it.

The overall change in consumption depends on how these two effects interact, which depends on the household's financial position. For a household in debt, an increasing real interest rate reduces its lifetime budget set, making it effectively poorer. Thus, for a debtor, the wealth effect reinforces the substitution effect, with both pushing towards lower current consumption. For a household with positive net wealth, an increase in the real interest rate expands its budget set, making it wealthier. Since aggregate consumption is typically a normal good, the wealth effect encourages higher current consumption, counteracting the substitution effect. Whether the household ultimately increases or decreases current consumption depends on the relative strength of these opposing forces. The strength of the wealth effect depends on the final level of wealth W_2. Assuming that present wealth is highly correlated with future wealth, the wealth effect should rise with current wealth. Thus, wealthier households should, on average, either increase consumption or reduce it less than poorer households in response to a rising real interest rate, regardless of whether the rate increase comes through higher nominal interest rates or lower inflation. This leads to our third hypothesis:

Hypothesis 3: *Consumption adjustments in response to an increased real interest rate are positively correlated with respondents' wealth and negatively correlated with respondents' debt.*

In line with Hypotheses 1 and 2, the correlation between responses and wealth and debt should be the same in the *Interest* and *Inflation* vignette.

Hypothesis 4: *The effects of wealth and debt on consumption responses are the same in the* Interest *and* Inflation *vignette.*

Note that Hypotheses 1 and 2 can be tested comparing the responses of the same individuals in both vignettes (within subject), while Hypotheses 3 and 4 require comparisons between subjects, for which we use the heterogeneity in reported wealth and debt.

Table 2: Summary statistics consumption

	Inflation			Interest			P-val
	Mean	SD	Count	Mean	SD	Count	
Durables	**3.887**	1.192	4088	**3.445**	1.237	4026	< 0.01
Non-durables	**3.961**	1.177	4369	**3.468**	1.225	4295	< 0.01
P-val	< 0.01			0.11			

Note: Consumption responses for durable and non-durable goods across the inflation drop and nominal interest rate increase vignettes. The p-values reported in the right column are from Wilcoxon matched-pairs tests comparing within-subject changes in consumption for the same good across the two vignettes. The p-values reported in the bottom row are from Wilcoxon matched-pairs tests comparing the within-subject changes in consumption across the two types of goods within the same vignette.

4 Results

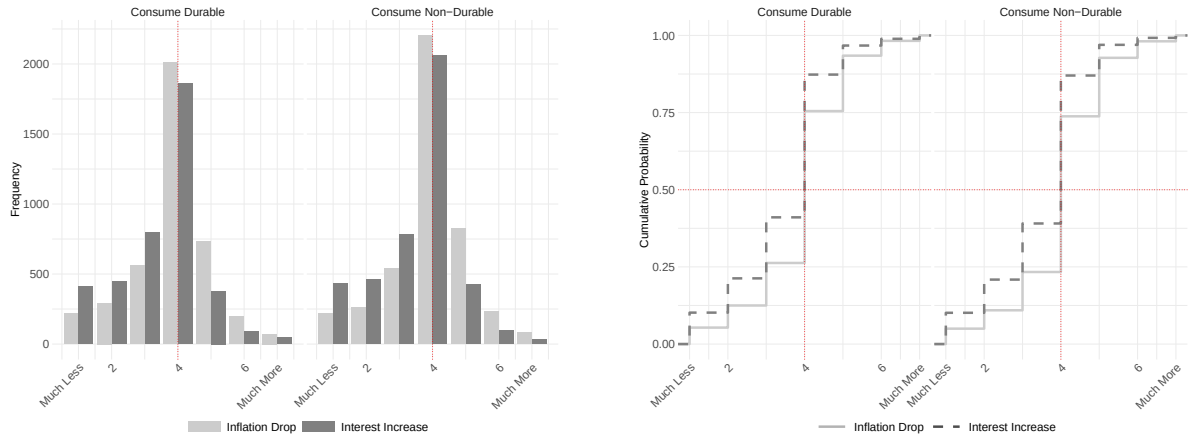
The entirety of Wave 44 of the BOP-HH, comprising 5,067 representative German households, participated in our experiment. Section 4.1 analyzes the changes in consumption of durable and non-durable goods across vignettes, and Section 4.2 analyzes changes in saving and borrowing across vignettes.[3] A description of the variables and summary statistics is provided in Table A.2 in Appendix A. Additionally, we provide exploratory analyses of wealth effects and budget-inconsistent choices in Sections 4.3 and 4.4. Further exploratory analysis of wealth effects by vignette is included in Appendix C. Ten respondents did not answer any of our questions and were therefore excluded from the analysis.

4.1 Consumption of Durables and Non-durables

Table 2 summarizes the change in consumption for each type of good across both vignettes. Recall that the Likert scale ranges from 1 to 7, where 1 indicates "consume much less," 4 "no change," and 7 "consume much more." In addition to allowing respondents to skip the question, each question offered the options "does not apply" and "don't know," so the number of observations differs across consumption types and vignettes.

[3]All of the reported analyses in these sections were preregistered at www.aspredicted.org (https://aspredicted.org/mnmf-scc5.pdf).

Figure 1: Frequency plot and cumulative distribution function of changes in consumption.



(a) Frequency of changes in consumption across vignettes

(b) CDF of changes in consumption across vignettes

Because the real interest rate rises in both vignettes, we would expect most respondents to report numbers below 4. The results confirm this prediction, with mean values below 4 in all cases. Wilcoxon signed-rank tests indicate that responses differ significantly from the neutral midpoint of 4 ($p < 0.01$) in all cases except for non-durable consumption in the inflation-decrease vignette ($p = 0.309$). Hence, except for non-durable consumption under disinflation, aggregate consumption would fall in response to higher nominal interest rates or lower expected inflation.

Figure 1 shows the histogram (left panel) and cumulative distribution functions (right panel) of the self-reported changes in consumption for each of the four scenarios. For durables and non-durables, the distribution of consumption changes induced by a drop in inflation first-order stochastically dominates the distribution induced by an increase in nominal interest rates. In other words, for both types of goods, respondents reduce their consumption more in response to an increase in the nominal interest rate than to an equivalent decrease in inflation. Importantly, these differences are not only across respondents but also *within participant*. Figure 2 shows a heatmap with the pairs of choices made by each respondent. For each type of good, we plot the change in consumption in the *Interest* vignette on the vertical axis and the change in consumption for the symmetric drop in inflation on the horizontal axis. If respondents treated both vignettes symmetrically, all data points should be on the diagonal.

About half of the respondents report identical consumption changes across vignettes—52.5% for durables and 56.1% for non-durables. However, most of these equal responses come from respondents who indicate no change in either vignette, which may reflect that the 5% change of the real rate was too small to induce a change in consumption.[4] Among the remaining observations for durables, 35.5% lie below the 45° line (indicating lower consumption plans in the *Interest* vignette) and 11.9% lie above it (indicating higher consumption plans in the *Interest* vignette). This yields a net asymmetry of 23.6 percentage points. For non-durable goods, 34.9% lie below the line and 9.0% above it, resulting in a net asymmetry of 26.0 percentage points.[5]

A Wilcoxon matched-pairs test comparing consumption adjustments across vignettes confirms the asymmetry in subjects' behavior ($p < 0.01$ for both types of goods). This result is robust to restricting the sample to respondents who reported an expected inflation of 5% or more. Thus, we can reject Hypothesis 1.

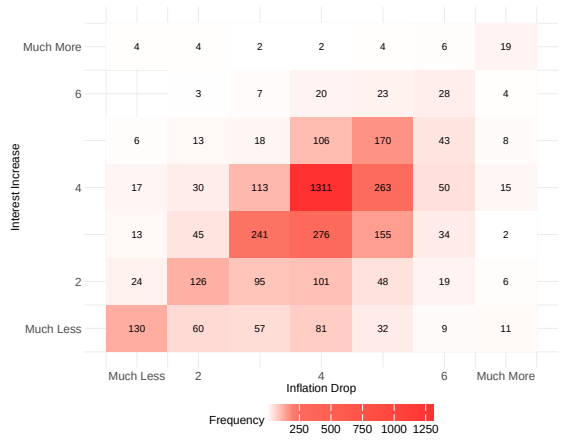
Result 1: *Respondents reduce their consumption significantly more in response to an increase in the nominal interest rate, compared to a decrease in inflation. While an increase in nominal interest leads to a clear reduction in average planned consumption, a decrease in inflation has a weaker effect.*

To analyze what drives differences between vignettes, we preregistered an analysis of how respondent characteristics correlate with two within-respondent measures comparing responses in the *Inflation* and *Interest* vignettes: a *directional gap* and a *magnitude gap*. Let $c_{r,\pi,d}$ and $c_{r,i,d}$ denote respondent r's consumption response in the *Inflation* and *Interest* vignettes, respectively, for consumption type $d \in \{\text{durable}, \text{non-durable}\}$. The directional gap is defined as $c_{r,\pi,d} - c_{r,i,d}$ and captures the signed asymmetry between the two responses, while the magnitude gap is defined as $|c_{r,\pi,d} - c_{r,i,d}|$ and captures re-

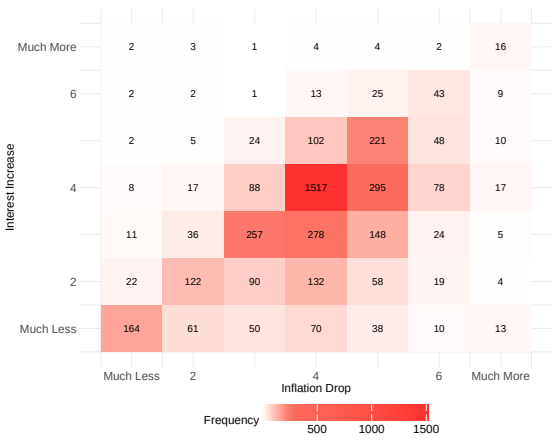
[4]Depending on consumption behavior, the interest rate may be irrelevant to households. Since we keep the purchasing power of income constant in both scenarios, hand-to-mouth consumers would not be affected by either change.

[5]Respondents might have been confused or interpreted the scenarios differently than intended. Assuming that such misunderstandings are random and evenly distributed on both sides of the diagonal, they should offset each other on average. The resulting net asymmetry is a conservative estimate of the share of respondents who systematically respond with lower consumption to rising interest rates, compared with an equivalent reduction in inflation.

Figure 2: Within-participant changes in consumption for Durables (a) and Non-durables (b)



(a) **Durables**: Within-participant changes in consumption for a symmetric drop in inflation or increase in nominal interest rates.



(b) **Non-durables**: Within-participant changes in consumption for a symmetric drop in inflation or increase in nominal interest rates.

sponse inconsistency independently of direction. Positive directional gaps indicate higher reported consumption in the *Inflation* vignette than in the *Interest* vignette, whereas negative values indicate the opposite.

One possible approach to relate these gaps to respondent characteristics would be to use OLS. However, OLS imposes an equal-spacing assumption across the seven response categories and thus treats category differences as cardinal units, which is difficult to justify for the seven-point Likert scales used to elicit respondents' reported changes in behavior. We can, however, assume that the thresholds for moving from any L to $L+1$ on the Likert scale are the same across both vignettes. This allows us to estimate the effects of covariates by stacked ordered probit regressions with responses to both vignettes. Using the *Interest* vignette as baseline, the coefficients of explanatory variables indicate the average contribution of the respective variable to the latent propensity to state a higher Likert value. The coefficient on *Inflation* captures the direct effect of the inflation vignette on this latent propensity, while the interaction terms of covariates with *Inflation* show how this effect differs for subjects with the respective covariate.[6]

[6]Ordered-probit coefficients describe shifts in a latent response index. Interaction coefficients therefore capture heterogeneity in the latent directional or magnitude gap, but should not be read as interaction effects on observed category probabilities; see Ai and Norton (2003) for the analogous issue in nonlinear

Thus, these interaction terms provide possible explanations for the directional gap. For the magnitude gap, we use a similar approach with the smaller response as baseline. Here, the interaction terms of covariates with "High" indicate how the latent propensity to state different Likert responses in the two vignettes varies with the respective covariate, independent of direction. Appendix B provides further details on how the stacked ordered specifications map into latent directional and absolute gaps between the *Inflation* and *Interest* responses.

Table 3 implements this stacked ordered probit approach for the directional and magnitude gaps. In Table 3a, the coefficient on the *Inflation* indicator captures the average directional gap between the two scenarios on the latent response scale, while the interaction terms (*Inflation* $\times X$) describe how this gap varies with respondent characteristics X.[7] In Table 3b, we relabel responses within each consumption type: for each respondent r and consumption type d, the weakly higher response in $\{c_{r,\pi,d}, c_{r,i,d}\}$ is labeled *High*, and the other *Low*.[8] The *High* coefficient summarizes the average magnitude gap between a respondent's two vignette responses on the latent scale, and *High* $\times X$ interactions describe how this separation varies with respondent characteristics. For brevity, both subtables report only the vignette indicator and interaction coefficients; the full stacked specifications are reported in Appendix C (Tables C.1 and C.3a).

An advantage of Table 3a is that it provides a covariate-adjusted counterpart to the Wilcoxon signed-rank results in Table 2 by estimating the within-respondent directional gap in a stacked ordered-probit framework. The *Inflation* indicator is positive and statistically significant for both durable and non-durable consumption, implying that respondents report a greater reduction in consumption in the *Interest* vignette than in the *Inflation* vignette.

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response models. As a robustness check, Appendix E reports OLS regressions that treat the Likert scale as cardinal; while these impose an equal-spacing assumption, they yield qualitatively similar conclusions.

[7]The number of observations differs across columns because around 75% of respondents answered the durable goods question in both vignettes, while about 80% did so for non-durable goods. The covariates are *Household Net Income*, *Wealth*, *Debt*, *Risk Aversion*, *Impatience*, *Age*, and indicators for *Female*, *University*, and *GDR*, as well as 12-month-ahead point inflation expectations (*Infl. Exp.*) and vignette order. All variables are mean-centered; definitions and summary statistics are reported in Appendix A.

[8]If $c_{r,\pi,d} = c_{r,i,d}$, we label one of the two observations as *High* by construction; the magnitude gap is then zero.

Table 3: Ordered Probit Consumption Gaps

(a) Directional gap

	Durable	Non-durable
Inflation	0.713***	0.854***
	(0.108)	(0.101)
Infl. × HH Net Income	-0.071	-0.005
	(0.097)	(0.090)
Infl. × Wealth	-0.012	-0.028**
	(0.014)	(0.011)
Infl. × Debt	0.027	0.027*
	(0.017)	(0.014)
Infl. × Risk Aversion	-0.001	0.012
	(0.014)	(0.013)
Infl. × Impatience	-0.008	-0.017
	(0.015)	(0.014)
Infl. × Age	-0.006***	-0.006***
	(0.001)	(0.001)
Infl. × Female	-0.021	0.009
	(0.039)	(0.037)
Infl. × University	-0.007	0.016
	(0.040)	(0.037)
Infl. × GDR	0.097*	0.006
	(0.053)	(0.048)
Infl. × Exp. Infl.	0.002	-0.001
	(0.007)	(0.004)
Infl. × Infl. First	0.107***	-0.053
	(0.037)	(0.034)
Observations	7598	8212

(b) Magnitude gap

	Durable	Non-durable
High response	0.862***	0.933***
	(0.095)	(0.093)
High × HH Net Income	-0.011	-0.049
	(0.087)	(0.083)
High × Wealth	-0.014	-0.027***
	(0.012)	(0.011)
High × Debt	0.025*	0.016
	(0.015)	(0.013)
High × Risk aversion	0.005	0.001
	(0.013)	(0.012)
High × Impatience	-0.009	-0.019
	(0.014)	(0.012)
High × Age	-0.003***	-0.003***
	(0.001)	(0.001)
High × Female	-0.032	0.044
	(0.034)	(0.033)
High × University	-0.062*	-0.040
	(0.036)	(0.034)
High × GDR	0.079*	0.009
	(0.047)	(0.044)
High × Exp. inflation	0.014***	0.007*
	(0.005)	(0.004)
High × Infl. First	0.034	0.010
	(0.032)	(0.031)
Observations	7598	8212

Standard errors in parentheses. Cut points are estimated but omitted. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Result 2: *Respondents reduce consumption more in response to higher nominal interest rates than to equivalent declines in inflation, even after controlling for socio-economic characteristics and order effects.*

Turning to heterogeneity, Table 3 shows that only a few of the preregistered covariates have significant effects on the *directional gap* and on the *magnitude gap*. Wealth is strongly

associated with smaller directional and magnitude gaps for non-durable consumption, with no comparable wealth-related heterogeneity for durables. Age is the most robust predictor, with older respondents exhibiting significantly smaller directional gaps in both consumption categories and also substantially smaller magnitude gaps. Beliefs about future inflation are also related to the magnitude gap, as higher expected inflation 12 months ahead is associated with a larger magnitude gap for durables.

Finally, the order of vignettes matters for durable consumption. Respondents who see the *Inflation* vignette first exhibit a significantly larger directional gap. The full regression in Table C.1 of Appendix C shows that these respondents choose higher consumption levels in the *Inflation* vignette for both durables and non-durables, while they choose higher consumption only for non-durables in the *Interest* vignette. Since average consumption reductions in the *Inflation* vignette are small, this pattern suggests that seeing the *Interest* vignette first may spill over into the subsequent lower-inflation scenario, leading respondents to report somewhat larger reductions in durables consumption.

Result 3: *There is heterogeneity in both the directional asymmetry and the consistency of responses between the two vignettes.*

(a) *Directional asymmetries are more pronounced among younger respondents and, for non-durable goods, for subjects with smaller wealth. For durable goods, the directional asymmetry is larger for respondents who answer the* Inflation *vignette before the* Interest *vignette. Other sociodemographic variables do not significantly contribute to explaining the directional gap.*

(b) *Older respondents provide more consistent responses across both consumption categories. Greater wealth is associated with more consistent responses mainly for non-durable consumption, whereas higher inflation expectations are associated with less consistent responses for durable consumption.*

4.2 Changes in Saving and Borrowing

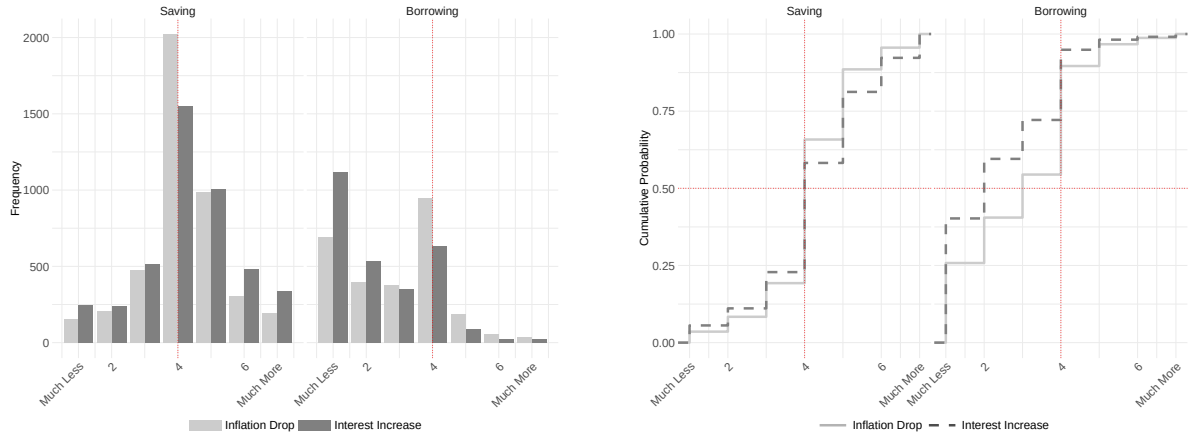
Table 4 reports the average, standard deviation, and number of observations for the self-reported change in saving and borrowing across both interest rate increase and inflation drop vignettes. Consistent with the negative aggregate consumption response to an increase in the real interest rate, respondents should, on average, save more and borrow

Table 4: Summary statistics Saving and Borrowing

	Inflation			Interest			P-val
	Mean	SD	Count	Mean	SD	Count	
Saving	**4.188**	1.222	4347	**4.287**	2.125	4376	< 0.01
Borrowing	**2.941**	1.482	2690	**2.358**	1.978	2783	< 0.01
P-val	< 0.01			< 0.01			

Note: Changes in saving and borrowing across the inflation drop and nominal interest rate increase vignettes. The p-values reported in the right column are from Wilcoxon Matched-Pairs tests comparing within-subject changes in saving across both types of vignettes in the first row and borrowing in the second row. The p-values reported in the bottom row are from a Wilcoxon Matched-Pairs test comparing within-subject changes in saving and borrowing within the same vignette.

Figure 3: Frequency plot and cumulative distribution function of the changes in saving and borrowing



(a) Frequency of self-reported changes in behavior

(b) CDF of the self-reported changes in behavior

less. A Wilcoxon signed-rank test shows that chosen response values differ significantly from the neutral midpoint of 4 ($(p < 0.01)$ in all cases).

Figure 3 shows the frequency plots (left panel) and cumulative distribution functions (right panel) of self-reported changes in saving and borrowing for each vignette. Respondents reduce borrowing more after an increase in the nominal interest rate than after an equivalent decrease in inflation, as reflected in the greater mass on lower response categories in the *Interest* vignette. Saving responses display the same qualitative asymmetry. In both vignetters, the modal respondent reports no change in saving. However, substantially more respondents report that they would save "much more" under a rise in nominal

interest rates than under a fall in inflation (325 vs. 180). These differences are not only between respondents but also appear within respondent, as shown in Figure 4. A notable pattern in the frequency plots is that borrowing responses are much more concentrated at the lower end of the scale. This concentration is especially pronounced in the *Interest* vignette, where "borrow much less" is the modal response. The pattern points to a particularly strong adjustment in the borrowing margin when nominal interest rates rise. These observations are consistent with nominal interest rates being more salient than an equivalent fall in inflation, both for the perceived return to saving and for the perceived cost of borrowing.

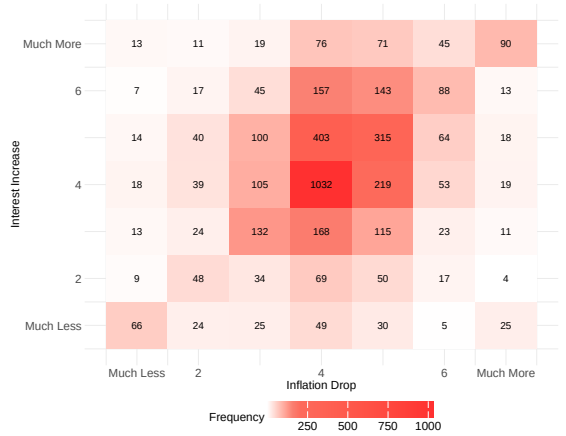
In Figure 4, we plot the pairs of choices made by each respondent for each vignette.[9] For saving, 42.4% of respondents give identical answers across vignettes, consistent with the theoretical prediction. Among the remaining respondents, 32.8% lie above the 45-degree line, indicating higher saving responses in the *Interest* vignette than in the *Inflation* vignette, while 24.8% lie below it, indicating lower saving responses. This yields a net asymmetry of 8.0 percentage points toward higher saving in the *Interest* vignette. For borrowing, 50.1% give identical answers across vignettes, while 37.8% lie below the 45-degree line, indicating lower borrowing responses in the *Interest* vignette than in the *Inflation* vignette, and 12.1% lie above it, indicating higher borrowing responses. This yields a net asymmetry of 25.6 percentage points toward lower borrowing in the *Interest* vignette. Appendix D reports the corresponding counts and shares for all four outcomes in Table D.1.

A Wilcoxon matched-pairs test confirms that differences between the saving and borrowing vignettes are statistically significant in all cases ($p < 0.01$ for all comparisons). These results hold if we restrict our sample to respondents who reported expected inflation of 5 percent or more. Thus, we can reject Hypothesis 2.

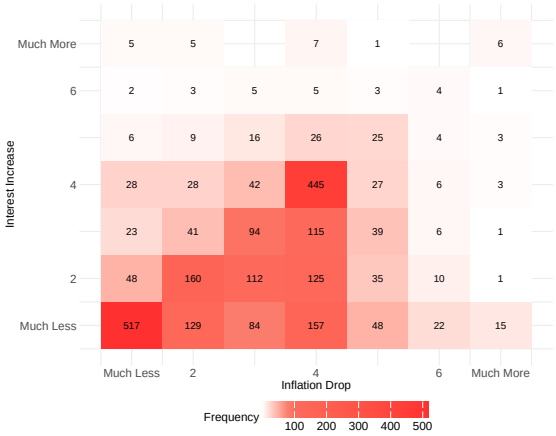
Result 4: *Respondents save more and borrow less in response to a higher real interest rate. However, they respond more strongly to increases in nominal interest rates than to decreases in inflation.*

[9]The color scale is not the same for both graphs, with the darkest color ending at 1,000 observations for the *Saving* vignette and at 500 for the *Borrowing* one.

Figure 4: Within-respondent changes in Saving (a) and Borrowing (b)



(a) **Saving**: Within-respondent changes in saving for a symmetric drop in inflation or increase in nominal interest rates.



(b) **Borrowing**: Within-respondent changes in borrowing for a symmetric drop in inflation or increase in nominal interest rates.

As in the consumption analysis, we characterize within-respondent differences in saving and borrowing across the *Inflation* and *Interest* vignettes using a *directional gap* (*Inflation* minus *Interest*) and a corresponding *magnitude gap* (the absolute difference). Table 5 reports stacked ordered-probit estimates for the directional and magnitude gaps. The treatment dummy (*Inflation*) is negative for saving and positive for borrowing in the directional-gap regressions, confirming that respondents increase saving and reduce borrowing more in the *Interest* vignette than in the *Inflation* vignette. This evidence mirrors the descriptive patterns in Table 4 and remains statistically significant after controlling for socioeconomic factors and order effects. For brevity, Table 5 reports only the vignette indicator and interaction coefficients. The full directional and magnitude specifications are reported in Appendix C (Tables C.2 and C.3b).

Result 5: *Respondents increase saving and reduce borrowing more in response to higher nominal interest rates than to equivalent declines in inflation. This difference remains robust after controlling for socio-economic characteristics and order effects.*

Socio-economic characteristics explain part of the heterogeneity in responses to saving and borrowing across vignettes. In the directional-gap specifications, interactions with the same sign as the *Inflation* coefficient widen the latent difference between the *Inflation* and *Interest* responses, while interactions with the opposite sign narrow it. In

Table 5: Ordered Probit Saving and Borrowing Gaps

(a) Directional gap

	Saving	Borrowing
Inflation	-0.717***	1.223***
	(0.117)	(0.146)
Infl. × HH Net Income	0.010	0.060
	(0.108)	(0.129)
Infl. × Wealth	-0.034***	0.012
	(0.012)	(0.018)
Infl. × Debt	0.035*	0.037*
	(0.019)	(0.019)
Infl. × Risk Aversion	0.016	-0.025
	(0.015)	(0.019)
Infl. × Impatience	0.012	-0.005
	(0.016)	(0.019)
Infl. × Age	0.006***	-0.010***
	(0.001)	(0.002)
Infl. × Female	0.012	0.010
	(0.042)	(0.050)
Infl. × University	-0.156***	0.078
	(0.043)	(0.052)
Infl. × GDR	-0.033	-0.007
	(0.057)	(0.065)
Infl. × Exp. Infl.	0.018***	-0.014**
	(0.004)	(0.006)
Infl. × Infl. First	0.199***	-0.286***
	(0.039)	(0.047)
Observations	8230	4922

(b) Magnitude gap

	Saving	Borrowing
High response	1.333***	1.322***
	(0.097)	(0.129)
High × HH Net Income	-0.003	0.093
	(0.088)	(0.113)
High × Wealth	-0.010	-0.011
	(0.010)	(0.017)
High × Debt	0.032**	0.042**
	(0.015)	(0.017)
High × Risk aversion	0.014	-0.031*
	(0.013)	(0.016)
High × Impatience	-0.036***	-0.013
	(0.013)	(0.017)
High × Age	-0.006***	-0.006***
	(0.001)	(0.001)
High × Female	0.028	0.059
	(0.035)	(0.044)
High × University	0.004	0.018
	(0.035)	(0.045)
High × GDR	0.036	-0.066
	(0.047)	(0.057)
High × Exp. Infl.	0.004	0.002
	(0.004)	(0.005)
High × Infl. First	-0.048	-0.204***
	(0.032)	(0.041)
Observations	8230	4922

Standard errors in parentheses. Cut points are estimated but omitted. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

the magnitude-gap specifications, positive *High* interactions imply larger absolute cross-vignette differences. Age is the most robust predictor, with older respondents exhibiting smaller directional and magnitude gaps in both domains. Debt is associated with larger magnitude gaps in both domains, while its directional association is only marginally significant and differs across outcomes, reducing the saving asymmetry and increasing the borrowing asymmetry. Wealth and university education strengthen the saving asymme-

try, reflecting higher saving responses in the *Interest* vignette but not in the *Inflation* vignette.[10] Higher inflation expectations attenuate directional gaps in both domains, while impatience and risk aversion predict smaller magnitude gaps in saving and borrowing, respectively. Vignette order also matters, with smaller directional gaps in both domains, and a smaller borrowing magnitude gap, when the *Inflation* vignette is shown first.[11]

Result 6: *There is heterogeneity in both the directional asymmetry and the consistency of saving and borrowing responses across vignettes.*

(a) *Higher age and higher inflation expectations are associated with smaller directional gaps in both domains. Wealth and education strengthen the saving asymmetry. Debt has opposing effects on directional gaps for savings and borrowing, but these effects are only marginally significant. Directional gaps in both domains are smaller when the Inflation vignette is shown first.*

(b) *Debt is associated with less consistent responses across vignettes for both saving and borrowing. Age is associated with greater consistency overall, and impatience is associated with greater consistency in saving. The magnitude gap for borrowing is also smaller when the* Inflation *vignette is shown first.*

4.3 Wealth Effects

In Section 3, we hypothesize that consumption responses are positively correlated with respondents' wealth and negatively correlated with their debt. To test this, we must examine the direct effects of wealth and debt on consumption in both vignettes.[12] Table C.1 in Appendix C reports the pooled specification twice, once with the *Interest* vignette as the baseline and once with the *Inflation* vignette as the baseline. The coefficients for the

[10] The effects of covariates on total responses in either scenario can be seen in Table C.2 in Appendix C.

[11] Table C.2 in Appendix C shows how vignette order shapes these responses. For saving, order has no effect in the Interest vignette but raises responses in the Inflation vignette when it is shown first. For borrowing, seeing the Inflation vignette first raises responses in the Interest vignette and lowers them in the Inflation vignette. Each of these shifts narrows the directional gap between vignettes when the Inflation vignette comes first.

[12] This analysis was not pre-registered and is, therefore, exploratory.

non-interacted covariates indicate the direct effects of these covariates on consumption in the two vignettes. The results reveal a clear pattern: in the interest vignette, wealth is positively associated with the consumption response (i.e., wealthier households report smaller planned cuts), while in the inflation vignette, wealth does not have a significant impact on consumption plans. In contrast, debt is negatively related to consumption in both vignettes, implying larger planned reductions of consumption among more indebted households. Overall, these findings are consistent with Hypothesis 3.

Result 7: *Consumption adjustments in response to an increased real interest rate are positively correlated with respondents' wealth in the* Interest *vignette and negatively correlated with respondents' debt in both vignettes.*

Notably, the coefficient on debt is larger in absolute value than the coefficient on wealth for both durable and non-durable consumption, in both the inflation and the interest vignette. One-sided Wald tests indicates that a 1€ decrease in debt is more strongly associated with consumption responses than a 1€ increase in wealth in each case. The difference is marginally significant for durable goods in the inflation vignette ($p = 0.059$) and statistically significant at conventional levels for non-durable goods in the inflation vignette and for both consumption categories in the interest vignette ($p = 0.009, p = 0.014$, and $p = 0.013$, respectively).

Result 8: *Consumption adjustments in response to an increased real interest rate are more strongly correlated with debt than with wealth.*

The absence of a correlation between wealth and consumption in the *Inflation* vignette is consistent with the idea that respondents find it harder to recognize real wealth revaluation when it arises from a decrease in inflation rather than an increase in nominal interest rates. In the *Interest* vignette, the link between higher rates and higher returns on saving is salient, whereas in the *Inflation* vignette, respondents must infer that disinflation increases the real value of nominal assets – a cognitive step many overlook (Kocharkov et al., 2025). Similarly, for debt, some subjects may not be aware that lower inflation increases the real burden of liabilities (Schnorpfeil et al., 2023). This may explain the smaller debt coefficients in the *Inflation* vignette compared to the *Interest* vignette.

The interaction terms in Table C.1a for wealth and debt have the opposite sign of their corresponding direct effects, indicating weaker associations in the *Inflation* vignette than in the *Interest* vignette. This difference is statistically significant for wealth in non-durable consumption and marginally significant for debt in non-durable consumption. Taken together, these results provide evidence against equal wealth effects across vignettes (Hypothesis 4).

Result 9: *For non-durable consumption, the association with wealth is weaker in the* Inflation *vignette than in the* Interest *vignette; the corresponding difference for debt is marginally significant.*

One possible explanation for the differences between vignettes is that some respondents fail to account for the debt relief generated by inflation. If this mechanism were the only driver of the results, the differences between vignettes should disappear among respondents without debt. However, repeating the Wilcoxon signed-rank tests from Section 4.1 using only respondents with no debt still yields significant differences between vignettes ($p < 0.01$ in all cases). This suggests that misunderstanding the implications of inflation for debt cannot fully explain the observed vignette differences.

In summary, the observed consumption responses broadly align with the theoretical expectations for wealth and substitution effects, but the patterns are more pronounced when the real interest rate rises via higher nominal interest rates than via lower inflation. This asymmetry likely reflects greater salience and perceived relevance of nominal rate changes.

Across specifications, in Tables C.1a and C.1b, higher debt is consistently associated with larger planned consumption cuts, while wealth and lower income dampen this response. These results confirm the relevance of wealth effects in shaping responses to real interest rate changes and highlight that the channel through which the rate shifts matters for the strength of these effects. Tables C.2a and C.2b show that income has a positive effect on saving that is equally strong in both vignettes. Debt has a negative effect on saving in both vignettes, while wealth has a positive effect on saving only in the Interest vignette. However, neither covariate has a significant impact on borrowing. Note that in the *Interest* vignette, both saving and consumption responses rise with wealth. Since income is held constant in our scenarios, such plans may violate the budget constraint.

4.4 Budget Consistency of Stated Plans

Our data also allows us to assess the budgetary consistency of respondents' stated plans.[13] To do so, we define a response as *budget inconsistent* if saving and both types of consumption move weakly in the same direction, while borrowing does not adjust in the offsetting direction. Specifically, we classify a response as inconsistent if saving, durable consumption, and non-durable consumption are all at or above "no change" and borrowing is at or below "no change", with at least one of the four responses changing strictly; or if saving, durable consumption, and non-durable consumption are all at or below "no change" and borrowing is at or above "no change", again with at least one strict change. This includes cases in which borrowing changes while saving and both consumption categories remain unchanged. For example, this criterion captures an increase in planned consumption that is not financed by higher borrowing, lower saving, or a decrease in another consumption category; conversely, it captures decreases in planned consumption or saving that are not accompanied by lower borrowing or higher spending elsewhere.

Based on this definition, budget inconsistencies are more prevalent in the *Inflation* vignette (37.03%) than in the *Interest* vignette (32.31%). A McNemar test comparing inconsistencies across vignettes indicates a statistically significant difference ($p < 0.01$).[14] This pattern suggests that respondents found the *Inflation* vignette harder to interpret, even though both vignettes imply the same rise in the real interest rate.

This definition assumes that respondents realize interest payments at the end of the year. Under a flow-budget interpretation, consumption and saving over the next 12 months could both increase during the year because the higher real rate raises interim interest income. This channel is small, however, and identical in real terms across vignettes. In nominal terms, such plans are easier to rationalize in the *Interest* vignette, where nominal interest income rises. Since inconsistencies are nevertheless more frequent in the *Inflation* vignette, a flow-budget interpretation cannot explain the higher inconsistency rate under disinflation.

[13] This analysis was not preregistered and is therefore exploratory.

[14] The McNemar test is a within-subject test, which requires each respondent to have answered both vignettes. This drops the number of observations to 2,388. In this matched sample, the inconsistency rate is 36.89% for the *Inflation* vignette and 32.62% for the *Interest* vignette.

Result 10: *Respondents are more prone to internally inconsistent consumption, saving, and borrowing plans in the Inflation vignette than in the Interest vignette.*

5 Conclusion

A fundamental assumption in consumption-saving theory is that individuals base their consumption decisions on the real interest rate. Consequently, any change in the real interest rate, whether due to an increase in the nominal interest rate or a decrease in inflation, should have the same effect on consumption. We tested this prediction using a large-scale within-subject survey experiment in the Bundesbank Online Panel—Households. Respondents were presented with two hypothetical vignettes that resulted in identical five-percentage-point increases in the real interest rate: in one, nominal interest rates rose, in the other, inflation fell by the same amount.

Our results reveal a clear asymmetry in consumption adjustments across both vignettes. Specifically, most respondents planned to cut consumption in response to a higher nominal interest rate, but showed little to no adjustment when the same real interest increase came via a decline in inflation. The observed systematic difference is due to at least one quarter of participants in a large representative survey. It suggest that these individuals do not treat the components of the real interest rate as interchangeable, as they respond more to changes in nominal interest rates than to the equivalent change in inflation. The pattern holds for durable and non-durable goods and is robust to a comprehensive set of controls. Moreover, changes in planned saving and borrowing mirror those in consumption; respondents planned to save more and borrow less under rising nominal interest rates, but adjusted their behavior less in response to a declining in inflation.

A plausible channel contributing to this asymmetry is that respondents appear to internalize the wealth implications of nominal interest rate changes more readily than those of disinflation. In the *Interest* vignette, planned consumption changes vary systematically with respondents' wealth, consistent with recognition that higher nominal rates raise the return on saving and expand future resources. In the *Inflation* vignette, by contrast, this relationship largely disappears, suggesting that respondents overlook the real wealth revaluation implied by lower inflation. Debt is negatively associated with planned changes in consumption in both vignettes, with a weaker effect in the *Inflation* vignette. Thus,

wealth and debt effects are weaker under disinflation than under a rising nominal interest rate. Compared with wealth effects, debt effects are stronger, potentially because debt is a more salient and personally burdensome state, making individuals more acutely aware of changes in its real value. Moreover, budget-inconsistent consumption–saving–borrowing responses are more frequent under the *Inflation* vignette, suggesting greater difficulty translating disinflation into intertemporal budget decisions.

The observed asymmetry in behavior is consistent with prior literature showing that people struggle with the broader consequences and trade-offs of inflation (Binetti et al., 2024) and that it challenges standard consumption–saving models. Our results call for models that allow for heterogeneous sensitivity to changes in nominal interest rates and expected inflation, and that explicitly capture how these components shape the perceived budget constraint. From a policy perspective, the findings highlight that the framing of communication matters: central banks may influence consumer spending more effectively by emphasizing changes in nominal interest rates rather than focusing solely on inflation targets.

The high rate of budget-inconsistent responses also points to a limitation of stated-plan data. Surveys that elicit consumption plans without also measuring saving and borrowing may miss important inconsistencies in respondents' implied budget constraints. If stated consumption plans violate the budget constraint, actual responses must differ from stated intentions. As a result, survey responses to changes in consumption plans may be systematically biased when such inconsistencies are non-random. In particular, the gap between rising nominal interest rates and disinflation may be smaller in realized behavior than in hypothetical plans, as real-world experience may make the budgetary consequences of each scenario more salient.

Our experiment only tests responses to rising real interest rates. Whether the same pattern holds for real-rate decreases remains open. Are responses to inflation expectations weaker than responses to decreasing nominal interest rates? The observed framing effect and deviations from rational equivalence documented here suggest that this symmetry cannot be assumed. Future research could test real-rate decreases directly and examine how the salience of inflation and nominal interest rates shapes perceptions of the real value of saving and debt. It would also be useful to assess whether these findings extend to countries with persistently high inflation, where consumers may be more attuned to

changes in real values. Such comparisons could inform the design of more effective and context-sensitive monetary policy communication strategies.

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Table A.1: Number of Answers

	Saving	*Borrowing*	*Durable*	*Non-durable*
Inflation Vignette	4,347	2,690	4,088	4,369
Interest Vignette	4,376	2,783	4,026	4,295

Appendix

A Descriptive Statistics and Variable Coding

All data come from Wave 44 of the BOP-HH. The details of the questionnaire can be found under this link. In the following, we describe how each variable was constructed, the alphanumeric code used in the BOP-HH to identify the variables, and the translation of the question. In accordance with our preregistration plan, we excluded variables from our regressions if less than 90% of respondents provided observations. This criterion led us to omit the variables "effect of debt on investments", "main shopper", "ability to save", and "probability of default" as less than 50% of respondents answered these questions.

- *Household Net Income* (CS008): "What is the total monthly net income of your household?" To answer, participants can select one of 13 bins, ranging from "Less than 500 €" to "10,000 € or more". To construct the variable, we used the midpoint of the selected bin, except for the highest bin, for which we used the value 10,000 €.

- *Wealth and Debt* (CQ007a to CQ007g): "How high do you estimate the assets and liabilities of your household to be?" The answers were classified into five asset categories (bank deposits, real estate, securities, equity in unlisted businesses, and other assets) and two debt categories (outstanding loans secured by real estate and other outstanding debt). Respondents could select from 10 bins for each asset or liability type. The range of bins differs across questions, and in all cases, respondents could also report holding no assets or debt of a given type. To construct our measure of *wealth*, we used the midpoint of the selected bin for each of the following asset categories—bank deposits, securities, equity in unlisted businesses, and other assets—and summed across them. Real estate was excluded from this measure. To construct our measure of *debt*, we took the midpoint of the selected bin for each

type of outstanding debt and summed across them. In all cases, the top bin was open-ended (e.g., "€500,000 or more" for bank deposits, "€1.5 million or more" for real estate). When an observation fell into an open-ended bin, we assigned it the lower bound of that bin (i.e., €500,000 for bank deposits and €1.5 million for real estate).

- *Risk Aversion* (P4406a): "In general, I am willing to take risks." To answer, participants could pick a value from 1 (strongly disagree) to 7 (Strongly agree) on a Likert scale. Because the scale increases in risk-seekingness, we flip it by subtracting each individual's chosen value from 8. So, if a participant picked 3, the measure of risk aversion would be 8-3=5. This transformation keeps all relative comparisons identical while changing the measure into risk *aversion*.

- *Impatience* (P4406b): "In general, I am willing to give up something that is beneficial to me today if it gives me an even greater advantage in the future." To answer, participants could pick a value from 1 (strongly disagree) to 7 (Strongly agree) on a Likert scale. Because the scale for this variable increases with patience, we flip the scale by subtracting each individual's chosen value from 8. So, if a participant picked 3, the measure of impatience would be 8-3=5. This transformation preserves all relative comparisons while recasting the measure as *impatience*.

- *Inflation Expectations* (CM003): "What do you think the rate of inflation[deflation] will roughly be over the next twelve months?" Participants had to enter a percent value. We take this point prediction as the value for our variable. The question format depended on a previous question in which they stated whether they expected inflation or deflation to be more likely.

- *Age* (-): panel demographic variable.

- *Female* (-): panel demographic variable.

- *University* (CS002): "What level of vocational training or university degree do you have? Please think of your highest qualification here." Participants are allowed to pick between ten options, we code the variable *University* to have value one if the choices are one of either: 1) Bachelor's degree, applied sciences degree, completed

Variable	Type	Description	Observations	Mean	Std Deviation
Household Income	Numeric	Household monthly net income (direct question)	5,057	3,806	2,126
Wealth	Numeric	Financial wealth excluding real estate (constructed)	5,057	83,672	155,291
Debt	Numeric	Total debt of the household (constructed)	5,057	46,556	113,256
Risk Aversion	Numeric	Participant's risk aversion score (Likert 1 to 7)	5,055	4.58	1.57
Impatience	Numeric	Intertemporal preferences (Likert 1 to 7)	5,052	3.67	1.54
Infl. Exp.	Numeric	Inflation expectations for the next 12 months (direct question)	4,970	6.35	5.47
Age	Numeric	Age of the participant (panel demographic variable)	5,007	56.88	15.74
Female	Categorical	Gender of the participant (panel demographic variable)	5,057	0.40	-
University	Categorical	Has university degree (direct question)	5,057	0.33	-
GDR	Categorical	Living in the German Democratic Republic in November 1989 (direct question)	5,057	0.15	-

Table A.2: Summary Statistics of Main Variables

training at an engineering college, 2) Diploma or master's degree, completed teacher training degree, or 3) Doctorate/postdoctoral qualification obtained. The variable is coded as zero otherwise.

- *GDR* (CO001): "In which part of Germany were you living shortly before the fall of the Berlin Wall on 9 November 1989?" Participants are given three possible answers: 1) "In eastern Germany, the former German Democratic Republic", 2) "In western Germany, the Federal Republic of Germany", 3) "I moved to Germany after 1989". We code GDR as equal to one if the participant selected the first choice and zero otherwise.

B Ordinal Regressions on Within-Respondent Differences

Our empirical analysis uses two within-respondent differences between the *Inflation* and *Interest* vignettes: a directional difference and a difference capturing the magnitude of the response gap.[15] In the main text, we express these as simple differences $c_{r,\pi,d} - c_{r,i,d}$ and absolute differences $|c_{r,\pi,d} - c_{r,i,d}|$. If outcomes were cardinal, these differences could be estimated by OLS regressions on respondent characteristics.

Because all outcomes are recorded on seven-point Likert scales, such regressions would impose an arbitrary cardinal structure on the response categories. We therefore construct ordinally coherent analogues using ordered logit/probit models, as described in Sections B.1 and B.2.[16] Throughout, let z_{rj} denote the latent continuous response for vignette $j \in \{\pi, i\}$ and let c_{rj} be the observed ordinal category. For notational convenience we suppress the consumption type index d, as all arguments apply identically across types.

Because the ordered-probit link is nonlinear, the interaction coefficients reported below are latent-index interactions. The corresponding interaction effects on observed response probabilities would depend on the covariates, cut points, and response category considered, as in Ai and Norton (2003). All ordered-probit specifications estimate the threshold parameters that map the latent response index into the seven observed Likert categories; these cut points are omitted from the tables for readability.

B.1 Simple Differences

Linear benchmark. Let $D_{rj} = \mathbb{1}\{j = \pi\}$ indicate the *Inflation* vignette. If the latent responses z_{rj} were observed, the stacked linear model

$$z_{rj} = \alpha + \tau D_{rj} + X_r\beta + (D_{rj}X_r)\theta + u_{rj} \tag{2}$$

implies the within-respondent difference

$$z_{r\pi} - z_{ri} = \tau + X_r\theta + (u_{r\pi} - u_{ri}).$$

[15] While differences of observed ordinal categories are not meaningful without cardinal assumptions, differences on the latent response scale are well defined. Ordered logit/probit models allow ordinally coherent inference about such latent differences without assigning cardinal distances to Likert categories.

[16] We use ordered probit regressions in the main text; the argument is identical for ordered logit models, which differ only in the assumed distribution of the latent error term.

Thus, an OLS regression of $(z_{r\pi} - z_{ri})$ on X_r recovers θ. The interaction terms in the stacked regression are therefore simply a reparameterisation of the within-respondent difference regression. When the covariates in X_r are mean-centered, the constant τ can be interpreted as the average treatment effect (*Inflation* minus *Interest*) in the linear benchmark.

Ordinal implementation. To avoid imposing arbitrary cardinal distances between adjacent categories, we replace (2) with an ordered logit/probit model using the same linear index. This specification identifies how the probability that the *Inflation* vignette yields a higher ordinal response varies with respondent characteristics. The parameters θ retain the same comparative-static interpretation as in the linear benchmark: they describe how the direction of the within-respondent difference (*Inflation* minus *Interest*) varies with X_r on the latent response scale.

B.2 Absolute Differences

Linear benchmark. If the latent responses z_{rj} were observed, an analogue of regressing $|z_{r\pi} - z_{ri}|$ on X_r can be obtained by defining an indicator H_{rj} for the vignette yielding the higher response and estimating

$$z_{rj} = \alpha + \gamma H_{rj} + X_r\beta + (H_{rj}X_r)\delta + u_{rj}. \tag{3}$$

Subtracting the equation for the lower response from that for the higher response yields

$$z_{rH} - z_{rL} = \gamma + X_r\delta + (u_{rH} - u_{rL}),$$

and since $z_{rH} - z_{rL} = |z_{r\pi} - z_{ri}|$, the coefficients δ correspond to a regression of absolute differences on X_r. When covariates are mean-centered, γ captures the average absolute *Inflation–Interest* gap, while δ captures heterogeneity in this gap.

Ordinal implementation. With ordinal responses we construct H_{rj} from the ordering of $(c_{r\pi}, c_{ri})$, breaking ties at random, and estimate an ordered model with linear index (3). The interaction coefficients δ therefore describe how the latent separation between the two vignette responses varies with X_r. This provides the ordinal analogue of regressing absolute differences on respondent characteristics, without imposing cardinal distances on Likert categories.

In the tables reported in the main text we follow the preregistered plan and report only the interaction coefficients θ and δ, the ordinal analogues of difference and absolute-difference regressions. The full stacked specifications corresponding to equations (2) and (3) are reported in Appendix C.

C Full stacked ordered probit specifications

This section reports the complete stacked ordered probit regressions that underlie Tables 3 and 5 in the main text. The main tables report only the vignette indicators and their interactions with the preregistered covariates, which are the coefficients of primary interest. Here, we provide the full model output, including the main effects of all covariates.

Throughout, the dependent variable is the original seven-point Likert response measuring the reported change in consumption or saving/borrowing behavior. Each respondent contributes two observations (one per vignette), and standard errors are clustered at the respondent level.

We report the model twice, once using the *Interest* vignette as the reference category (as in the main text) and once using the *Inflation* vignette as the reference category. These alternative parameterizations represent the same underlying model but facilitate interpretation of vignette-specific main effects.

C.1 Directional differences

Tables C.1 and C.2 correspond to the stacked specification described in Appendix B and Section 4. The left panel takes the interest vignette as baseline and the right panel takes the inflation vignette as baseline. The coefficient on the vignette indicator captures the average within-respondent directional gap between the two vignettes on the latent response scale, while the interaction terms (vignette $\times X$) describe how this gap varies with respondent characteristics. While treatment effects and their interaction were discussed in the main text, direct effects of covariates tell us whether in either scenario consumption responses are significantly affected by them.

For consumption, the direct effects of wealth and debt are discussed in Section 4.3. Beyond this, risk aversion is consistently associated with lower consumption responses. Female and university indicators are associated with higher responses in most columns, while respondents from the GDR tend to report lower responses, especially in the interest vignette. The effects of age, expected inflation, and vignette order vary by good and treatment.

For saving and borrowing, we see that older participants respond with lower saving and lower borrowing, impatient subjects with lower saving, and participants with a university

degree with relatively higher saving and borrowing, where the effect on saving is only significant in the interest scenario. A higher degree of risk aversion is associated with lower borrowing, but this is only significant in the inflation treatment.

C.2 Absolute differences

Table C.3 reports the stacked ordered probit models for the magnitude gap between vignette responses. For each respondent, the higher of the two Likert responses is labeled *High* and the other *Low*. The coefficient on the *High* indicator captures the average separation between the two vignette responses on the latent scale, while the *High* $\times X$ interactions describe how this separation varies with respondent characteristics.

Table C.1: Full Stacked Ordered Probit Specifications: Consumption Directional Gap

(a) Base: Interest

	Durable	Non-durable
Inflation	0.713***	0.854***
	(0.108)	(0.101)
Household Income	0.131	0.268***
	(0.091)	(0.088)
Infl. × Household Income	-0.071	-0.005
	(0.097)	(0.090)
Wealth	0.026**	0.041***
	(0.012)	(0.010)
Infl. × Wealth	-0.012	-0.028**
	(0.014)	(0.011)
Debt	-0.060***	-0.080***
	(0.015)	(0.015)
Infl. × Debt	0.027	0.027*
	(0.017)	(0.014)
Risk Aversion	-0.038***	-0.073***
	(0.014)	(0.013)
Infl. × Risk Aversion	-0.001	0.012
	(0.014)	(0.013)
Impatience	-0.024*	-0.005
	(0.014)	(0.013)
Infl. × Impatience	-0.008	-0.017
	(0.015)	(0.014)
Age	-0.006***	-0.001
	(0.001)	(0.001)
Infl. × Age	-0.006***	-0.006***
	(0.001)	(0.001)
Female	0.076**	0.139***
	(0.036)	(0.035)
Infl. × Female	-0.021	0.009
	(0.039)	(0.037)
University	0.091**	0.120***
	(0.038)	(0.035)
Infl. × University	-0.007	0.016
	(0.040)	(0.037)
GDR	-0.130***	-0.120**
	(0.047)	(0.047)
Infl. × GDR	0.097*	0.006
	(0.053)	(0.048)
Exp. Infl.	-0.002	-0.015***
	(0.005)	(0.004)
Infl. × Exp. Infl.	0.002	-0.001
	(0.007)	(0.004)
Infl. First	-0.017	0.169***
	(0.034)	(0.033)
Infl. × Infl. First	0.107***	-0.053
	(0.037)	(0.034)
Observations	7598	8212

(b) Base: Inflation

	Durable	Non-durable
Interest	-0.713***	-0.854***
	(0.108)	(0.101)
Household Income	0.060	0.263***
	(0.090)	(0.091)
Int. × Household Income	0.071	0.005
	(0.097)	(0.090)
Wealth	0.014	0.014
	(0.011)	(0.011)
Int. × Wealth	0.012	0.028**
	(0.014)	(0.011)
Debt	-0.033**	-0.052***
	(0.014)	(0.014)
Int. × Debt	-0.027	-0.027*
	(0.017)	(0.014)
Risk Aversion	-0.039***	-0.060***
	(0.014)	(0.013)
Int. × Risk Aversion	0.001	-0.012
	(0.014)	(0.013)
Impatience	-0.032**	-0.021
	(0.014)	(0.014)
Int. × Impatience	0.008	0.017
	(0.015)	(0.014)
Age	-0.012***	-0.007***
	(0.001)	(0.001)
Int. × Age	0.006***	0.006***
	(0.001)	(0.001)
Female	0.055	0.148***
	(0.037)	(0.036)
Int. × Female	0.021	-0.009
	(0.039)	(0.037)
University	0.084**	0.137***
	(0.037)	(0.036)
Int. × University	0.007	-0.016
	(0.040)	(0.037)
GDR	-0.033	-0.114**
	(0.049)	(0.049)
Int. × GDR	-0.097*	-0.006
	(0.053)	(0.048)
Exp. Inf.	-0.001	-0.016***
	(0.005)	(0.004)
Int. × Exp. Infl.	-0.002	0.001
	(0.007)	(0.004)
Infl First	0.090***	0.116***
	(0.034)	(0.033)
Int. × Infl. First	-0.107***	0.053
	(0.037)	(0.034)
Observations	7598	8212

Standard errors in parentheses. Cut points are estimated but omitted. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C.2: Full Stacked Ordered Probit Specifications: Saving and Borrowing Directional Gap

(a) Base: Interest

	Saving	Borrowing
Inflation	-0.717***	1.223***
	(0.117)	(0.146)
Household Income	0.267***	0.032
	(0.099)	(0.125)
Infl. × Household Income	0.010	0.060
	(0.108)	(0.129)
Wealth	0.035***	0.007
	(0.011)	(0.015)
Infl. × Wealth	-0.034***	0.012
	(0.012)	(0.018)
Debt	-0.072***	-0.007
	(0.016)	(0.018)
Infl. × Debt	0.035*	0.037*
	(0.019)	(0.019)
Risk Aversion	-0.021	-0.027
	(0.014)	(0.018)
Infl. × Risk Aversion	0.016	-0.025
	(0.015)	(0.019)
Impatience	-0.052***	-0.020
	(0.015)	(0.019)
Infl. × Impatience	0.012	-0.005
	(0.016)	(0.019)
Age	-0.012***	-0.007***
	(0.001)	(0.001)
Infl. × Age	0.006***	-0.010***
	(0.001)	(0.002)
Female	0.066*	0.045
	(0.037)	(0.048)
Infl. × Female	0.012	0.010
	(0.042)	(0.050)
University	0.125***	0.132***
	(0.038)	(0.050)
Infl. × University	-0.156***	0.078
	(0.043)	(0.052)
GDR	-0.038	-0.052
	(0.052)	(0.062)
Infl. × GDR	-0.033	-0.007
	(0.057)	(0.065)
Exp. Infl.	-0.011**	-0.003
	(0.005)	(0.006)
Infl. × Exp. Infl.	0.018***	-0.014**
	(0.004)	(0.006)
Infl. First	0.017	0.123***
	(0.035)	(0.045)
Infl. × Infl. First	0.199***	-0.286***
	(0.039)	(0.047)
Observations	8230	4922

(b) Base: Inflation

	Saving	Borrowing
Interest	0.717***	-1.223***
	(0.117)	(0.146)
Household Income	0.277***	0.092
	(0.081)	(0.114)
Int. × Household Income	-0.010	-0.060
	(0.108)	(0.129)
Wealth	0.001	0.019
	(0.009)	(0.014)
Int. × Wealth	0.034***	-0.012
	(0.012)	(0.018)
Debt	-0.037***	0.030*
	(0.013)	(0.016)
Int. × Debt	-0.035*	-0.037*
	(0.019)	(0.019)
Risk Aversion	-0.005	-0.052***
	(0.012)	(0.017)
Int. × Risk Aversion	-0.016	0.025
	(0.015)	(0.019)
Impatience	-0.040***	-0.025
	(0.012)	(0.018)
Int. × Impatience	-0.012	0.005
	(0.016)	(0.019)
Age	-0.006***	-0.017***
	(0.001)	(0.001)
Int. × Age	-0.006***	0.010***
	(0.001)	(0.002)
Female	0.079**	0.055
	(0.032)	(0.045)
Int. × Female	-0.012	-0.010
	(0.042)	(0.050)
University	-0.031	0.210***
	(0.032)	(0.046)
Int. × University	0.156***	-0.078
	(0.043)	(0.052)
GDR	-0.071*	-0.059
	(0.043)	(0.059)
Int. × GDR	0.033	0.007
	(0.057)	(0.065)
Exp. Infl.	0.007*	-0.017***
	(0.004)	(0.005)
Int. × Exp. Infl.	-0.018***	0.014**
	(0.004)	(0.006)
Infl. First	0.216***	-0.163***
	(0.030)	(0.042)
Int. × Infl. First	-0.199***	0.286***
	(0.039)	(0.047)
Observations	8230	4922

Standard errors in parentheses. Cut points are estimated but omitted. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C.3: Full Stacked Ordered Probit Specifications: Magnitude Gap

(a) Consumption

	Durable	Non-durable
High response	0.862***	0.933***
	(0.095)	(0.093)
HH Net Income	0.104	0.299***
	(0.089)	(0.087)
High × HH Net Income	-0.011	-0.049
	(0.087)	(0.083)
Wealth	0.028**	0.042***
	(0.012)	(0.010)
High × Wealth	-0.014	-0.027***
	(0.012)	(0.011)
Debt	-0.062***	-0.076***
	(0.014)	(0.014)
High × Debt	0.025*	0.016
	(0.015)	(0.013)
Risk aversion	-0.043***	-0.069***
	(0.013)	(0.013)
High × Risk aversion	0.005	0.001
	(0.013)	(0.012)
Impatience	-0.025*	-0.004
	(0.014)	(0.013)
High × Impatience	-0.009	-0.019
	(0.014)	(0.012)
Age	-0.008***	-0.003**
	(0.001)	(0.001)
High × Age	-0.003***	-0.003***
	(0.001)	(0.001)
Female	0.085**	0.126***
	(0.036)	(0.034)
High × Female	-0.032	0.044
	(0.034)	(0.033)
University	0.124***	0.153***
	(0.037)	(0.035)
High × University	-0.062*	-0.040
	(0.036)	(0.034)
GDR	-0.125***	-0.126***
	(0.047)	(0.046)
High × GDR	0.079*	0.009
	(0.047)	(0.044)
Exp. Infl.	-0.009**	-0.020***
	(0.004)	(0.004)
High × Exp. Infl.	0.014***	0.007*
	(0.005)	(0.004)
Infl. First	0.022	0.143***
	(0.034)	(0.032)
High × Infl. First	0.034	0.010
	(0.032)	(0.031)
Observations	7598	8212

(b) Saving and borrowing

	Saving	Borrowing
High response	1.333***	1.322***
	(0.097)	(0.129)
HH Net Income	0.300***	0.016
	(0.090)	(0.118)
High × HH Net Income	-0.003	0.093
	(0.088)	(0.113)
Wealth	0.025**	0.019
	(0.010)	(0.015)
High × Wealth	-0.010	-0.011
	(0.010)	(0.017)
Debt	-0.076***	-0.008
	(0.014)	(0.017)
High × Debt	0.032**	0.042**
	(0.015)	(0.017)
Risk aversion	-0.021	-0.026
	(0.013)	(0.017)
High × Risk aversion	0.014	-0.031*
	(0.013)	(0.016)
Impatience	-0.032**	-0.017
	(0.014)	(0.018)
High × Impatience	-0.036***	-0.013
	(0.013)	(0.017)
Age	-0.007***	-0.009***
	(0.001)	(0.001)
High × Age	-0.006***	-0.006***
	(0.001)	(0.001)
Female	0.065*	0.022
	(0.035)	(0.046)
High × Female	0.028	0.059
	(0.035)	(0.044)
University	0.050	0.172***
	(0.036)	(0.048)
High × University	0.004	0.018
	(0.035)	(0.045)
GDR	-0.077	-0.023
	(0.048)	(0.059)
High × GDR	0.036	-0.066
	(0.047)	(0.057)
Exp. Infl.	-0.004	-0.011***
	(0.005)	(0.004)
High × Exp. Infl.	0.004	0.002
	(0.004)	(0.005)
Infl. First	0.153***	0.082*
	(0.033)	(0.043)
High × Inf. First	-0.048	-0.204***
	(0.032)	(0.041)
Observations	8230	4922

Standard errors in parentheses. Cut points are estimated but omitted. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table D.1: Symmetries and Asymmetries in Consumption Responses

	Saving	Borrowing	Durables	Non-durable
Interest = Inflation	1.771	1.251	2.025	2.340
	(42.4%)	(50.1%)	(52.5%)	(56.1%)
No change	1.032	445	1.311	1.517
	(24.7%)	(17.8%)	(34.0%)	(36.4%)
Interest < Inflation	1.035	943	1.369	1.457
	(24.8%)	(37.8%)	(35.5%)	(34.9%)
Interest > Inflation	1.369	303	460	374
	(32.8%)	(12.1%)	(11.9%)	(9.0%)
Net asymmetry[a]	−334	640	909	1.083
	(-8.0%)	(25.6%)	(23.6%)	(26.0%)
Total Observations	4.175	2.497	3.854	4.171

Notes: *No change* is a subset of *Interest=Inflation*, and counts respondents who do not adjust the corresponding outcome in either vignette.

[a] *Interest<Inflation* minus *Interest>Inflation*.

D Symmetries and Asymmetries in Responses

E Robustness Checks

E.1 OLS regressions on simple and absolute differences

Ordered-probit models avoid imposing equal distances between adjacent Likert categories by estimating effects on a latent response index. Because the link function is nonlinear, however, the reported coefficients should not be interpreted as constant marginal effects on the probability of choosing a particular observed response category. This is especially relevant for interaction terms: as shown by Ai and Norton (2003), interaction coefficients in nonlinear response models need not equal interaction effects on the probability scale, and the latter may vary with covariates and baseline probabilities.

As a robustness check, Table E.1 reports the OLS counterpart to Table 3, and Table E.2 reports the OLS counterpart to Table 5. These OLS regressions treat the seven-point scale as cardinal and impose equal distances between adjacent response categories. This linear treatment is common in applications and often provides a reasonable approximation to ordered-response models in terms of signs and broad substantive conclusions (Kaiser and Lepinteur, 2025). The OLS results are therefore not a formal test of the ordered-probit model, but they provide a transparent benchmark for whether the signs and statistical precision of the main patterns depend on the latent-index specification. The qualitative conclusions are similar across OLS and ordered probit. Following Kaiser and Lepinteur (2025), we place greatest weight on findings that are both substantively stable across specifications and highly significant.

Table E.1: OLS regressions on simple and absolute differences for durable and non-durable consumption

	Diff Durable	Diff Non-durable	Abs Durable	Abs Non-durable
HH Net Income	-0.081	-0.015	-0.048	-0.086
	(0.107)	(0.097)	(0.092)	(0.088)
Wealth	-0.015	-0.034***	-0.020	-0.032***
	(0.015)	(0.012)	(0.013)	(0.011)
Debt	0.035*	0.032**	0.034**	0.025*
	(0.018)	(0.016)	(0.016)	(0.014)
Risk Aversion	0.001	0.018	0.007	0.006
	(0.016)	(0.014)	(0.014)	(0.013)
Impatience	-0.012	-0.019	-0.013	-0.018
	(0.017)	(0.015)	(0.015)	(0.013)
Age	-0.006***	-0.006***	-0.002*	-0.002**
	(0.001)	(0.001)	(0.001)	(0.001)
Female	-0.028	0.011	-0.038	0.038
	(0.043)	(0.040)	(0.037)	(0.035)
University	-0.022	0.003	-0.083**	-0.063*
	(0.044)	(0.040)	(0.038)	(0.036)
GDR	0.110*	0.008	0.089*	0.020
	(0.059)	(0.052)	(0.050)	(0.046)
Inflation Exp.	0.003	0.000	0.017***	0.009**
	(0.008)	(0.005)	(0.006)	(0.004)
Infl. First	0.111***	-0.065*	0.033	-0.002
	(0.041)	(0.037)	(0.035)	(0.032)
Constant	0.424***	0.476***	0.788***	0.730***
	(0.020)	(0.018)	(0.017)	(0.016)
Observations	3799	4106	3799	4106
R^2	0.012	0.013	0.015	0.010

Note: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table E.2: OLS regressions on simple and absolute differences for saving and borrowing

	Diff Saving	Diff Borrowing	Abs Saving	Abs Borrowing
HH Net Income	-0.022	0.079	-0.021	0.122
	(0.134)	(0.169)	(0.101)	(0.142)
Wealth	-0.043***	0.020	-0.016	-0.009
	(0.015)	(0.023)	(0.011)	(0.021)
Debt	0.047*	0.050**	0.045**	0.063***
	(0.024)	(0.025)	(0.017)	(0.021)
Risk Aversion	0.020	-0.039*	0.017	-0.045**
	(0.019)	(0.024)	(0.015)	(0.020)
Impatience	0.013	0.001	-0.043***	-0.017
	(0.021)	(0.024)	(0.016)	(0.020)
Age	0.008***	-0.015***	-0.007***	-0.010***
	(0.002)	(0.002)	(0.001)	(0.002)
Female	0.004	0.020	0.016	0.095*
	(0.053)	(0.065)	(0.040)	(0.055)
University	-0.181***	0.113*	-0.015	0.032
	(0.054)	(0.068)	(0.040)	(0.057)
GDR	-0.050	-0.030	0.048	-0.099
	(0.072)	(0.083)	(0.055)	(0.071)
Inflation Exp.	0.023***	-0.018**	0.007	-0.001
	(0.005)	(0.007)	(0.004)	(0.006)
Infl. First	0.252***	-0.399***	-0.036	-0.267***
	(0.049)	(0.060)	(0.037)	(0.051)
Constant	-0.096***	0.483***	1.024***	0.938***
	(0.024)	(0.030)	(0.019)	(0.025)
Observations	4115	2461	4115	2461
R^2	0.028	0.059	0.017	0.045

Note: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

E.2 Additional Controls

In this subsection, we use additional variables from the survey on households' planned spending, which were not preregistered, to assess the robustness of the vignette-based results. The BOP-HH survey included questions *CM006_a*, *CM006_c*, *CM006_g*, and *CM006_i* eliciting respondents' intended changes in expenditure over the coming year for four broad categories: large purchases (e.g., car, furniture, electric machines), clothing and shoes, leisure activities, and savings, respectively. For each category, respondents indicate whether they expect to spend more, about the same, or less in the next twelve months. These items directly address the same underlying adjustment margins that the vignettes are designed to probe, but they are collected earlier in the survey than the hypothetical vignettes in our module.

We transform these spending-plan questions into continuous variables that take values -1, 0, and $+1$ for "less", "about the same", and "more", respectively. We label these variables *Spend durable*, *Spend clothing*, *Spend leisure*, and *Savings*. By construction, positive values indicate a general tendency to increase expenditure in that category, whereas negative values indicate a tendency to reduce it. We then include these continuous spending-plan measures, together with their interactions with the inflation vignette, as additional regressors in the directional-difference specifications for consumption and for saving/borrowing, as reported in Table E.3. Conceptually, this extension serves as a robustness check: if the vignette responses were primarily capturing broad, non-scenario-specific spending attitudes already present in the survey, then conditioning on these spending-plan variables should substantially attenuate the estimated heterogeneity with respect to households' financial position.

— The inclusion of the survey-based spending-plan controls does not meaningfully alter results. In general, most significant coefficients are somewhat smaller in absolute terms than their counterparts in Tables C.1 and C.2 and a few covariates appear less or insignificant in Table E.3. In particular, the positive effect of wealth on consumption of durables that is significant at 5% in Table C.1, is now insignificant. The same is true for the order effect on savings. The effect of income on savings is only marginally significant here, while it is significant at 1% in Table C.2. All other significant effects remain. In particular, the cross-vignette comparison is preserved: responses are stronger in the interest vignette than in the inflation vignette. The interaction terms indicate that

the wealth gradient is attenuated under the inflation vignette relative to the interest-rate vignette, whereas the debt gradient is partially offset under inflation (i.e., the negative association between debt and consumption is less steep under the inflation scenario). Age is the only demographic covariate that reduces all differences between vignettes. The spending-plan controls themselves load with intuitive signs: respondents who report planned reductions in a given category state lower consumption plans in our scenarios as well. However, these controls have almost no significant effects on the differences between vignettes. Only "spend leisure" has a marginally significant impact on the directional gaps for saving and borrowing.

Taken together, these results strengthen the interpretation of the vignette evidence in Section 4. The key heterogeneity patterns tied to households' wealth and total debt—and, critically, the differences in these gradients across the inflation versus interest-rate vignettes—remain stable when conditioning on survey-based spending plans that track closely related, non-vignette questions. This makes it less plausible that the vignette outcomes are merely re-labelling generic stated spending attitudes. Instead, the evidence is consistent with the intended interpretation of the vignettes: they recover the expected wealth- and debt-related variation in responses, and the cross-vignette differences in these effects reflect scenario-specific mechanisms rather than omitted attitudinal confounds captured by the spending-plan items.

Table E.3: Additional Controls for Directional Gap Specifications

	Consumption		Saving and Borrowing	
	Durable	Non-durable	Saving	Borrowing
Inflation	0.747***	0.890***	-0.716***	1.237***
	(0.111)	(0.106)	(0.120)	(0.150)
Household Income	0.081	0.211**	0.169*	0.015
	(0.091)	(0.089)	(0.100)	(0.125)
Inflation × Household Income	-0.066	-0.001	0.043	0.075
	(0.101)	(0.094)	(0.111)	(0.132)
Wealth	0.010	0.027***	0.034***	-0.004
	(0.013)	(0.010)	(0.011)	(0.015)
Inflation × Wealth	-0.011	-0.029**	-0.033***	0.014
	(0.014)	(0.012)	(0.012)	(0.018)
Debt	-0.055***	-0.071***	-0.063***	-0.003
	(0.016)	(0.015)	(0.017)	(0.018)
Inflation × Debt	0.026	0.027*	0.032	0.035*
	(0.017)	(0.015)	(0.019)	(0.019)
Risk Aversion	-0.031**	-0.063***	-0.016	-0.020
	(0.014)	(0.013)	(0.014)	(0.018)
Inflation × Risk Aversion	-0.003	0.012	0.014	-0.028
	(0.015)	(0.014)	(0.016)	(0.019)
Impatience	-0.021	-0.003	-0.050***	-0.016
	(0.014)	(0.013)	(0.015)	(0.019)
Inflation × Impatience	-0.009	-0.017	0.012	-0.006
	(0.016)	(0.014)	(0.017)	(0.019)
Age	-0.005***	0.000	-0.011***	-0.005***
	(0.001)	(0.001)	(0.001)	(0.002)
Inflation × Age	-0.006***	-0.007***	0.006***	-0.010***
	(0.001)	(0.001)	(0.001)	(0.002)
Female	0.078**	0.132***	0.057	0.040
	(0.037)	(0.035)	(0.038)	(0.049)
Female × Inflation	-0.017	0.012	0.019	0.021
	(0.040)	(0.038)	(0.043)	(0.051)
University	0.071*	0.096***	0.113***	0.112**
	(0.038)	(0.035)	(0.038)	(0.050)
University × Inflation	-0.003	0.018	-0.149***	0.086
	(0.041)	(0.038)	(0.044)	(0.052)
GDR	-0.104**	-0.080*	-0.016	-0.037
	(0.048)	(0.047)	(0.051)	(0.062)
GDR × Inflation	0.097*	0.002	-0.047	-0.014
	(0.055)	(0.050)	(0.058)	(0.066)
Exp. Infl.	0.003	-0.010***	-0.007	0.000
	(0.005)	(0.004)	(0.005)	(0.006)
Inflation × Exp. Infl.	0.000	-0.002	0.017***	-0.014**
	(0.007)	(0.005)	(0.004)	(0.006)
Infl. First	-0.020	0.181***	0.018	0.119***
	(0.034)	(0.033)	(0.035)	(0.045)
Infl. First × Inflation	0.109***	-0.054	0.200***	-0.293***
	(0.038)	(0.035)	(0.040)	(0.047)
Spend durables	0.198***	0.038	-0.019	0.172***
	(0.027)	(0.025)	(0.027)	(0.035)
Inflation × Spend durables	-0.019	-0.019	0.008	-0.024

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	Consumption		Saving and Borrowing	
	Durable	Non-durable	Saving	Borrowing
	(0.030)	(0.028)	(0.032)	(0.038)
Spend clothing	0.155***	0.092***	-0.005	0.031
	(0.036)	(0.035)	(0.037)	(0.050)
Inflation × Spend clothing	0.049	0.033	0.021	0.053
	(0.040)	(0.039)	(0.041)	(0.051)
Spend leisure	0.137***	0.415***	0.071*	0.141***
	(0.035)	(0.036)	(0.037)	(0.046)
Inflation × Spend leisure	-0.069*	-0.039	-0.103**	-0.086*
	(0.039)	(0.037)	(0.040)	(0.049)
Savings	0.057*	0.041	0.370***	-0.044
	(0.034)	(0.034)	(0.037)	(0.043)
Inflation × Savings	-0.004	0.001	-0.066	0.012
	(0.038)	(0.036)	(0.040)	(0.046)
Observations	7582	8192	8214	4906

Standard errors in parentheses. Cut points are estimated but omitted.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$