

Online Appendix

for

When Wording Changes What We Find:

The Impact of Inflation Expectations on Spending

Tiziana Assenza
TSE (UT-Capitole) and IAST

Stefanie Huber
University of Bonn and ECONtribute

Anna Mogilevskaia
University of Bonn and ECONtribute

Tobias Schmidt
Deutsche Bundesbank, Research Center

The online appendix contains the following materials:

(i) an overview of the survey structure (Online Appendix A); (ii) all hypothesis tests, additional results and robustness checks (Online Appendix B); (iii) replications of prior studies examining the relationship between expected inflation and consumption (Online Appendix C); and (iv) the assessment of the internal and external validity of our consumption measures (Online Appendix D).

A Survey Structure

In addition to the questions used in our paper, the BOP-HH survey includes a wide range of items. As our key questions are not presented consecutively in the survey, we briefly outline the overall structure:

The survey begins by eliciting macroeconomic expectations, including perceived and expected inflation. This is followed by the core consumption questions: F1 (planned spending) and F2 (1-month quantitative recall-based spending). Next are questions on home ownership and house price expectations.

Our experimental module follows, starting with questions on household type and attitude towards durable consumption. Respondents are then randomly assigned to one of two groups: one answers quantitative recall-based questions, the other qualitative recall-based questions. After this, we ask about the reasons for purchasing durable goods. The survey concludes with socio-demographic questions. The full questionnaire for the March wave can be found below. The full questionnaire for the March wave is available online. German:

<https://www.bundesbank.de/resource/blob/918014/108b89f71062014688c2e3694a394cfd/472B63F073F071307366337C94F8C870/questionnaire-51-data.pdf>

English: <https://www.bundesbank.de/resource/blob/918016/709ec3dea159eb06b9eb1d12cb2eb1cb/472B63F073F071307366337C94F8C870/questionnaire-51-data.pdf>

The numbers for the consumption questions and experimental module are CM006 and P5100 to P5106.

B Additional Results and Regressions

B.1 Summary Statistics

	Sample ($N \approx 3,600$)			
	Mean	SD	Min	Max
Attitude towards spending	1.87	0.54	1	3
Individual purchases	2.03	0.65	1	3
Household purchases	2.09	0.66	1	3
Past month's spending (€)	1,068.99	4,924.43	0	55,000
Past three months' spending (€)	1,314.28	5,328.20	0	50,000
Past twelve months' spending (€)	4,914.83	12,069.91	0	90,000
Planned Spending	1.87	0.70	1	3
Inflation Expectation (%)	3.55	3.74	-25.00	30.00
Interest Rate Expectations on Savings Account (%)	1.92	1.46	-4	22
Expects Interest Rate on Savings Account Increase (%)	15.25	.	.	.
Expects Interest Rate on Savings Account Decrease (%)	34.77	.	.	.
Expects Interest Rate on Lending Increase (%)	37.45	.	.	.
Expects Interest Rate on Lending Decrease (%)	24.84	.	.	.
Expects Unemployment Increase (%)	40.71	.	.	.
Expects Unemployment Decrease (%)	12.27	.	.	.
Nominal Wage Growth Expectation (%)	3.42	20.65	-300.10	150.08
Monthly Net Household Income (€)	3,000 - 3,499	.	< 500	≥ 10,000
Age	54.84	16.13	16	80
Female (%)	41.01	.	.	.
No College (%)	44.86	.	.	.

Table B.1: Summary Statistics

	F1	F2	F3	F4	F5	F6	F7
<i>Panel A</i>							
No Answer (in %)	0.1522	1.1923	0.0507	0.6944	0.4644	0.0508	0.1399
Don't Know (in %)	0.2029	0.6849	0.1268	0.3472	0.9288	0.1523	0.1399
Sum (in %)	0.3552	1.8772	0.1776	1.0417	1.3932	0.2030	0.2797
<i>Panel B</i>							
No Answer	6	47	2	2	3	1	2
Don't Know	8	27	5	1	6	3	2
Sum	14	74	7	3	9	4	4

Note: This table summarizes missing responses across the consumption measures. Respondents could either report that they have no answer or that they do not know the answer. Panel A is in % and Panel B is in absolute numbers. F1: planned spending; F2/F4/F5: quantitative recall-based (1, 3, 12 months); F3: attitude; F6/F7: qualitative recall-based (individual, household).

Table B.2: Missing Responses

	Group 1	Group 2	Test of mode difference
Mean Age	54.69 (0.38)	55.00 (0.38)	$t(3600) = 0.5707$ $p = 0.5682$
Percentage no university	54.62%	55.66%	$\chi(2) = 0.7744$ $p = 0.679$
Percentage low income	11.50%	12.44%	$\chi(2) = 1.3927$ $p = 0.498$
Percentage female	39.91%	42.11%	$\chi(1) = 1.7962$ $p = 0.180$
Percentage unemployed	1.49%	1.62%	$\chi(1) = 0.0917$ $p = 0.762$
Percentage East Germany	17.08%	18.46%	$\chi(1) = 1.1727$ $p = 0.279$
<i>N</i>	1,809	1,793	3,602

Note: Low income is a total monthly net household income of €1,999 or less.

Table B.3: Balance Table: Group 1 and Group 2

B.2 Estimation Strategy

In order to test whether framing dependencies and which type of framing dependencies matter for the relationship between inflation expectations and consumption, we do pairwise comparison of the consumption measures in our hypothesis tests. Therefore, we employ the following estimation strategy:

$$C_i^l = \beta_0 + \beta_1 E_{i,t}(\pi_{t+12}) + \beta_2 E_{i,t}(\pi_{t+12}) \times Treat_i + \beta_3 Treat_i + \beta_4 X_i + \epsilon_i, \quad (\text{B.1})$$

where C_i^l is the durable consumption outcome reported by individual i , and $l \in \{j, h, k\}$ indicates the specific framing dimension under analysis: reference unit (j), recall period (h), or question type (k). $E_{i,t}(\pi_{t+12})$ is expected inflation. $Treat_i$ is a binary indicator that indicates which consumption question the response is based on. X_i includes control variables such as expectations for higher economic growth and sociodemographic characteristics (age, age squared, gender, household income, education level, employment status, an East Germany dummy, household size, and city size).

By controlling for expectations of economic growth, it is possible to account for the confounding effect of macroeconomic expectations on our estimates. On the one hand, individuals may anticipate higher inflation due to a positive outlook on the economy; on the other hand, they may also engage in greater consumption. Moreover, we partially control for inherent optimism and pessimism of individuals. This aligns with the estimation strategies presented in [Bachmann et al. \(2015\)](#); [Burke and Ozdagli \(2023\)](#), [D’Acunto et al.](#)

(2022), Dräger and Nghiem (2021), Duca-Radu et al. (2021) and Ichiue and Nishiguchi (2015).

Household income is expressed in three categories: low income (a total monthly net household income of €1,999 or less), mid income (a total monthly net household income of between €2,000 and €4,999), high income (a total monthly net household income of €5,000 or higher). Education is categorized in lower, medium and higher professional education according to the German Qualifications Framework for Lifelong Learning (DQR) (of Education and Research, 2023). Lower education corresponds to individuals with no finished job training or those who are still in school. Medium education corresponds to individuals that finished vocational training. Higher education corresponds to individuals who finished university or an equivalent.

The seven consumption measures in our survey use very different response formats (some numeric, some categorical, etc.), so we transform their answer categories to make them comparable for binary comparisons. Online appendix B.3 describes our recoding procedure in detail. In brief, for temporal-framing and unit-reference framing, the response format are already consistent across items, so no further recoding is needed. In contrast, the question-type framing tests require harmonization. Here, we convert each item’s original response categories into binary indicators to align attitudinal, quantitative and qualitative recall-based measures. This recoding procedure effectively harmonizes the outcome variables across formats. For example, in Hypothesis Test 4 (comparing quantitative vs. qualitative recall-based questions), we recode the responses into binary indicators: for the qualitative measure, the dummy equals one if the respondent reports “increased consumption” and zero otherwise; for the quantitative measure, the dummy equals one if the respondent report positive expenditure and zero otherwise. In other words, each original question is transformed into a binary variable, yielding a comparable coding scheme that enables joint estimation, while preserving the distinct meaning of each measure.

B.3 Hypothesis Tests

This section summarizes all hypothesis tests. For each test based on pooled responses, we also report the corresponding disaggregated tests, denoted by subscripts a , b , etc..

B.3.1 Reference Unit Framing

Hypothesis 1 tests whether the relation between current spending on durables and inflation expectations depends on the reference unit (individual vs. household level).

- Group A: question F6 (qualitative recall-based spending at individual level)
- Group B: question F7 (qualitative recall-based spending at household level)

$$C_i^j = \beta_0 + \beta_1 E_{i,t}(\pi_{t+12}) + \beta_2 E_{i,t}(\pi_{t+12}) \times Treat_i + \beta_3 Treat_i + \beta_4 X_i + \epsilon_i, \quad (\text{B.2})$$

Where $j \in \{\text{individual } i, \text{household}\}$. The indicator variable $Treat_i$ equals one if the consumption question refers to Group B and zero if refers to Group A. The responses from both variables are multinomial ordered so we estimate the hypothesis test using ordered probit.

B.3.2 Temporal Framing

Hypothesis 2 tests whether the relation between current spending on durables and inflation expectations depends on the recalled time horizon (3 vs 12 past months).

- Group A: F5 (12-month quantitative recall-based spending)
- Group B: F4 (3-month quantitative recall-based spending)

$$C_i^h = \beta_0 + \beta_1 E_{i,t}(\pi_{t+12}) + \beta_2 E_{i,t}(\pi_{t+12}) \times Treat_i + \beta_3 Treat_i + \beta_4 X_i + \epsilon_i, \quad (\text{B.3})$$

Where $h \in \{3, 12\}$. The indicator variable $Treat_i$ equals one if the consumption question refers to Group B and zero if refers to Group A. The responses from both variables are mixed discrete-continuous but respondents only have to respond to F4 and F5 if they previously indicated that they consumed durable goods in the past twelve months before. Hence, we estimate the hypothesis test using log linear models.

Hypothesis 3 tests whether the relation between current spending on durables and inflation expectations depends on the recalled time horizon (1 vs 3/12 past months).

- Group A: F4/F5 (3- and 12-month quantitative recall-based spending)
- Group B: F2 (1-month quantitative recall-based spending)

$$C_i^h = \beta_0 + \beta_1 E_{i,t}(\pi_{t+12}) + \beta_2 E_{i,t}(\pi_{t+12}) \times Treat_i + \beta_3 Treat_i + \beta_4 X_i + \epsilon_i, \quad (\text{B.4})$$

Where $h \in \{1, 3, 12\}$. The indicator variable $Treat_i$ equals one if the consumption question refers to Group B and zero if refers to Group A. The responses from all variables are mixed discrete-continuous but respondents only have to respond to F4 and F5 if they previously indicated that they consumed durable goods in the past twelve months. Hence,

we estimate the hypothesis test using log linear models.

Hypothesis 3_a tests whether the relation between current spending on durables and inflation expectations depends on the recalled time horizon (1 vs 3 past months).

- Group A: F4 (3-month quantitative recall-based spending)
- Group B: F2 (1-month quantitative recall-based spending)

$$C_i^h = \beta_0 + \beta_1 E_{i,t}(\pi_{t+12}) + \beta_2 E_{i,t}(\pi_{t+12}) \times Treat_i + \beta_3 Treat_i + \beta_4 X_i + \epsilon_i, \quad (\text{B.5})$$

Where $h \in \{1, 3\}$. The indicator variable $Treat_i$ equals one if the consumption question refers to Group B and zero if refers to Group A. The responses from both variables are mixed discrete-continuous but respondents only have to respond to F4 if they previously indicated that they consumed durable goods in the past three months. Hence, we estimate the hypothesis test using log linear models.

Hypothesis 3_b tests whether the relation between current spending on durables and inflation expectations depends on the recalled time horizon (1 vs 12 past months).

- Group A: F5 (12-month quantitative recall-based spending)
- Group B: F2 (1-month quantitative recall-based spending)

$$C_i^h = \beta_0 + \beta_1 E_{i,t}(\pi_{t+12}) + \beta_2 E_{i,t}(\pi_{t+12}) \times Treat_i + \beta_3 Treat_i + \beta_4 X_i + \epsilon_i, \quad (\text{B.6})$$

Where $h \in \{1, 12\}$. The indicator variable $Treat_i$ equals one if the consumption question refers to Group B and zero if refers to Group A. The responses from both variables are mixed discrete-continuous but respondents only have to respond to F5 if they previously indicated that they consumed durable goods in the past twelve months. Hence, we estimate the hypothesis test using log linear models.

B.3.3 Question Type Framing

Hypothesis 4 tests whether the relation between current spending on durables and inflation expectations depends on whether the consumption question is quantitative or qualitative recall-based. Therefore, the question is whether we can interpret positive expenses as an increase of expenses and vice versa. To ensure comparability we transform both measures into binary indicators.

- Group A: F5 (12-month quantitative recall-based spending)
 - F5 = 1 if expenses are greater than zero and F5 = 0 otherwise
- Group B: F7 (qualitative recall-based spending at household level)
 - F7 = 1 if increase in expenses and F7 = 0 otherwise

$$C_i^k = \beta_0 + \beta_1 E_{i,t}(\pi_{t+12}) + \beta_2 E_{i,t}(\pi_{t+12}) \times Treat_i + \beta_3 Treat_i + \beta_4 X_i + \epsilon_i, \quad (\text{B.7})$$

Where $k \in \{\text{quantitative recall-based, qualitative recall-based}\}$. The indicator variable $Treat_i$ equals one if the consumption question refers to Group B and zero if refers to Group A. The responses from the transformed variables are binary so we estimate the hypothesis test using logit.

Hypothesis 5 tests whether the relation between current spending on durables and inflation expectations depends on whether the consumption question measures an attitude or quantitative recall-based spending. Therefore, we pull together the quantitative recall-based measures from F4 (3 months) and F5 (12 months) together. The question is whether we can interpret a positive attitude as positive expenses and vice versa. To ensure comparability of the measures we transform both measure in binary indicators.

- Group A: question F3 (attitude)
 - F3 = 1 if attitude is positive or neither positive nor negative and F3 = 0 otherwise
- Group B: F4/F5 (3- and 12-month quantitative recall-based spending)
 - F4/F5 = 1 if positive expenses and F4/F5 = 0 if zero expenses)

$$C_i^k = \beta_0 + \beta_1 E_{i,t}(\pi_{t+12}) + \beta_2 E_{i,t}(\pi_{t+12}) \times Treat_i + \beta_3 Treat_i + \beta_4 X_i + \epsilon_i, \quad (\text{B.8})$$

Where $k \in \{\text{attitude, quantitative recall-based}\}$. The indicator variable $Treat_i$ equals one if the consumption question refers to Group B and zero if refers to Group A. The responses from the transformed variables are binary so we estimate the hypothesis test using logit.

Hypothesis 5_a tests whether the relation between current spending on durables and inflation expectations depends on whether the consumption question measures an attitude or quantitative recall-based spending (3 months). Therefore, the question is whether we can

interpret a positive attitude as positive expenses and vice versa. To ensure comparability of the measures we transform both measure in binary indicators.

- Group A: question F3 (attitude)
 - F3 = 1 if attitude is positive or neither positive nor negative and F3 = 0 otherwise
- Group B: F4 (3-month quantitative recall-based spending)
 - F4 = 1 if positive expenses and F4 = 0 if zero expenses

$$C_i^k = \beta_0 + \beta_1 E_{i,t}(\pi_{t+12}) + \beta_2 E_{i,t}(\pi_{t+12}) \times Treat_i + \beta_3 Treat_i + \beta_4 X_i + \epsilon_i, \quad (\text{B.9})$$

Where $k \in \{\text{attitude, quantitative recall-based}\}$. The indicator variable $Treat_i$ equals one if the consumption question refers to Group B and zero if refers to Group A. The responses from the transformed variables are binary so we estimate the hypothesis test using logit.

Hypothesis 5_b tests whether the relation between current spending on durables and inflation expectations depends on whether the consumption question measures an attitude or quantitative spending (12 months). Therefore, the question is whether we can interpret a positive attitude as positive expenses and vice versa. To ensure comparability of the measures we transform both measures in binary indicators.

- Group A: question F3 (attitude)
 - F3 = 1 if attitude is positive or neither positive nor negative and F3 = 0 otherwise
- Group B: F5 (12-month quantitative recall-based spending)
 - F5 = 1 if positive expenses and F5 = 0 if zero expenses

$$C_i^k = \beta_0 + \beta_1 E_{i,t}(\pi_{t+12}) + \beta_2 E_{i,t}(\pi_{t+12}) \times Treat_i + \beta_3 Treat_i + \beta_4 X_i + \epsilon_i, \quad (\text{B.10})$$

Where $k \in \{\text{attitude, quantitative recall-based}\}$. The indicator variable $Treat_i$ equals one if the consumption question refers to Group B and zero if refers to Group A. The responses from the transformed variables are binary so we estimate the hypothesis test using logit.

Hypothesis 5_c tests whether the relation between current spending on durables and inflation expectations depends on whether the consumption question measures an attitude or

quantitative recall-based spending (1 month). Therefore, the question is whether we can interpret a positive attitude as positive expenses and vice versa. To ensure comparability of the measures we transform both measure in binary indicators.

- Group A: question F3 (attitude)
 - F3 = 1 if attitude is positive or neither positive nor negative and F3 = 0 otherwise
- Group B: F2 (1-month quantitative recall-based spending)
 - F2 = 1 if positive expenses and F2 = 0 if zero expenses

$$C_i^k = \beta_0 + \beta_1 E_{i,t}(\pi_{t+12}) + \beta_2 E_{i,t}(\pi_{t+12}) \times Treat_i + \beta_3 Treat_i + \beta_4 X_i + \epsilon_i, \quad (\text{B.11})$$

Where $k \in \{\text{attitude, quantitative recall-based}\}$. The indicator variable $Treat_i$ equals one if the consumption question refers to Group B and zero if refers to Group A. The responses from the transformed variables are binary so we estimate the hypothesis test using logit.

Hypothesis 6 tests whether the relation between current spending on durables and inflation expectations depends on whether the consumption question measures an attitude or qualitative recall-based spending. Therefore, we pull the qualitative measures from F6 (individual level) and F7 (household level) together. The question is whether we can interpret a positive attitude as an increase of expenses and vice versa. We do not have to transform the measure as they are both multinomial (three levels) and ordered.

- Group A: F3 (attitude)
- Group B: F6/F7 (qualitative recall-based spending at individual and household level)

$$C_i^k = \beta_0 + \beta_1 E_{i,t}(\pi_{t+12}) + \beta_2 E_{i,t}(\pi_{t+12}) \times Treat_i + \beta_3 Treat_i + \beta_4 X_i + \epsilon_i, \quad (\text{B.12})$$

Where $k \in \{\text{attitude, qualitative recall-based}\}$. The indicator variable $Treat_i$ equals one if the consumption question refers to Group B and zero if refers to Group A. The responses from both variables are multinomial ordered so we estimate the hypothesis test using ordered probit.

Hypothesis 6_a tests whether the relation between current spending on durables and inflation expectations depends on whether the consumption question measures an attitude or qualitative recall-based spending at the individual level. Therefore, the question is whether

we can interpret a positive attitude as an increase of expenses and vice versa. We do not have to transform the measure as they are both multinomial (three levels) and ordered.

- Group A: F3 (attitude)
- Group B: F6 (qualitative recall-based spending at individual level)

$$C_i^k = \beta_0 + \beta_1 E_{i,t}(\pi_{t+12}) + \beta_2 E_{i,t}(\pi_{t+12}) \times Treat_i + \beta_3 Treat_i + \beta_4 X_i + \epsilon_i, \quad (\text{B.13})$$

Where $k \in \{\text{attitude, qualitative recall-based}\}$. The indicator variable $Treat_i$ equals one if the consumption question refers to Group B and zero if refers to Group A. The responses from both variables are multinomial ordered so we estimate the hypothesis test using ordered probit.

Hypothesis 6_b tests whether the relation between current spending on durables and inflation expectations depends on whether the consumption question measures an attitude or qualitative recall-based spending at the household level. Therefore, the question is whether we can interpret a positive attitude as an increase of expenses and vice versa. We do not have to transform the measure as they are both multinomial (three levels) and ordered.

- Group A: F3 (attitude)
- Group B: F7 (qualitative recall-based spending household level)

$$C_i^k = \beta_0 + \beta_1 E_{i,t}(\pi_{t+12}) + \beta_2 E_{i,t}(\pi_{t+12}) \times Treat_i + \beta_3 Treat_i + \beta_4 X_i + \epsilon_i, \quad (\text{B.14})$$

Where $k \in \{\text{attitude, qualitative recall-based}\}$. The indicator variable $Treat_i$ equals one if the consumption question refers to Group B and zero if refers to Group A. The responses from both variables are multinomial ordered so we estimate the hypothesis test using ordered probit.

Hypothesis 7 tests whether the relation between spending on durables and inflation expectations depends on the consumption question measures an attitude or planned spending. Therefore, the question is whether we can interpret a positive attitude as an increase of planned expenses and vice versa. We do not have to transform the measure as they are both multinomial (three levels) and ordered.

- Group A: F3 (attitude)
- Group B: F1 (planned spending)

$$C_i^k = \beta_0 + \beta_1 E_{i,t}(\pi_{t+12}) + \beta_2 E_{i,t}(\pi_{t+12}) \times Treat_i + \beta_3 Treat_i + \beta_4 X_i + \epsilon_i, \quad (\text{B.15})$$

Where $k \in \{\text{attitude, planned spending}\}$. The indicator variable $Treat_i$ equals one if the consumption question refers to Group B and zero if refers to Group A. The responses from both variables are multinomial ordered so we estimate the hypothesis test using ordered probit.

B.4 Additional Regression Tables

This section presents additional regressions that extend beyond the baseline estimations. Tables B.4, B.6–B.9, B.13–B.18 report the results of the hypothesis tests individually, comparing the effect of expected inflation on the consumption variables without pooling responses. We also estimate the effect of expected inflation separately for each consumption measure to assess the robustness and consistency of the results.

	<i>H1</i>	F6	F7
	(1)	(2)	(3)
Inflation Expectations $E_{i,t}(\pi_{t+1})$	-0.0023 (0.0212)	-0.0001 (0.0031)	0.0046 (0.0030)
$E_{i,t}(\pi_{t+1}) \times Treatment$	0.0334 (0.0192)		
<i>Treatment</i>	0.0214 (0.0828)		
Constant	+	+	+
Controls	+	+	+
<i>N</i>	2,584	1,292	1,292
Pseudo R^2	0.0137	0.0179	0.0173

Note: Column 1 reports the results for Hypothesis 1, which tests whether the effect of expected inflation depends on the reference unit by comparing responses to qualitative recall-based spending at individual (F6) and household level (F7). The treatment is F7. The estimation method is ordered probit with individual random effects. Columns 2 and 3 present the marginal effects from ordered probit estimations, examining individual- and household-level changes in spending over the past 12 months, respectively. Inflation expectations are entered as a continuous variable truncated at ± 30 . All regressions include controls for expected economic growth and a standard set of sociodemographic characteristics: age, age squared, gender, household income, education, employment status, an East Germany dummy, household size, and city size. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table B.4: Hypothesis Test 1

	<i>H1</i>	<i>H6</i>
	Logit	Logit
	(1)	(2)
Inflation Expectations $E_{i,t}(\pi_{t+1})$	0.1590 (0.1381)	-0.0807*** (0.0160)
$E_{i,t}(\pi_{t+1}) \times Treatment$	0.0319 (0.0596)	0.1180*** (0.0222)
<i>Treatment</i>	0.4893 (0.2945)	-2.9732*** (0.1558)
Constant	+	+
Controls	+	+
N	2,584	3,580
Pseudo R^2	0.0126	0.2463

Note: The table reports the results for Hypothesis 1 and 6, recoding qualitative recall-based spending to reflect real changes—classifying responses as real increases when nominal spending rises, and real decreases otherwise. Column 1 examines whether the relationship between inflation expectations and reported durable spending depends on the reference unit (individual vs. household), based on responses to qualitative recall-based spending at the individual (F6) and household level (F7) (Hypothesis Test 1). Column 2 (Hypothesis Test 6) compares attitude (F3) with the pooled responses of qualitative recall-based spending at the individual (F6) and household level (F7). The estimation method is logit. Inflation expectations are entered as a continuous variable truncated at ± 30 . All regressions include controls for expected economic growth and a standard set of sociodemographic characteristics: age, age squared, gender, household income, education, employment status, an East Germany dummy, household size, and city size. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table B.5: Hypothesis Test 1 and 6 - Real Change in Consumption

	<i>H2</i>	F4	F5
	(1)	(2)	(3)
Inflation Expectations $E_{i,t}(\pi_{t+1})$	-0.0166 (0.0187)	0.0634* (0.0281)	-0.0161 (0.0188)
$E_{i,t}(\pi_{t+1}) \times Treatment$	0.0776* (0.0324)		
<i>Treatment</i>	-0.6923*** (0.1526)		
Constant	+	+	+
Controls	+	+	+
<i>N</i>	840	251	589
R^2	0.0917	0.0816	0.1025

Note: Column 1 reports the results for Hypothesis 2, which tests whether the effect of expected inflation varies with the time frame of consumption by comparing responses to quantitative recall-based spending over the past 3 months (F4) and 12 months (F5). The treatment is F4. The estimation method is log-linear. Columns 2 and 3 present the estimate from log-linear, examining spending over the past three and twelve months, respectively. Inflation expectations are entered as a continuous variable truncated at ± 30 . All regressions include controls for expected economic growth and a standard set of sociodemographic characteristics: age, age squared, gender, household income, education, employment status, an East Germany dummy, household size, and city size. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table B.6: Hypothesis Test 2

	<i>H3_a</i>	F2	F4
	(1)	(2)	(3)
Inflation Expectations $E_{i,t}(\pi_{t+1})$	0.0601 (0.0318)	0.0621 (0.0328)	0.0610 (0.0328)
$E_{i,t}(\pi_{t+1}) \times Treatment$	0.0030 (0.0272)		
<i>Treatment</i>	-0.7257*** (0.1169)		
Constant	+	+	+
Controls	+	+	+
<i>N</i>	352	176	176
R^2	0.1539	0.1352	0.0980

Note: Column 1 reports the results for Hypothesis 3_a, which tests whether the effect of expected inflation varies with the time frame of consumption by comparing responses to quantitative recall-based spending over the past month (F2) and the past 3 months (F4). The treatment is F2. The estimation method is log-linear. Columns 2 and 3 present the estimate from log-linear, examining spending over the past month and three months, respectively. Inflation expectations are entered as a continuous variable truncated at ± 30 . All regressions include controls for expected economic growth and a standard set of sociodemographic characteristics: age, age squared, gender, household income, education, employment status, an East Germany dummy, household size, and city size. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table B.7: Hypothesis Test 3_a

	$H3_b$	F2	F5
	(1)	(2)	(3)
Inflation Expectations $E_{i,t}(\pi_{t+1})$	0.0113 (0.0259)	0.0004 (0.0278)	0.0193 (0.0274)
$E_{i,t}(\pi_{t+1}) \times Treatment$	-0.0028 (0.0260)		
$Treatment$	-2.3610*** (0.1408)		
Constant	+	+	+
Controls	+	+	+
N	542	271	271
R^2	0.4458	0.0380	0.1258

Note: Column 1 reports the results for Hypothesis 3_b, which tests whether the effect of expected inflation varies with the time frame of consumption by comparing responses to quantitative recall-based spending over the past month (F2) and the past 12 months (F5). The treatment is F2. The estimation method is log-linear. Columns 2 and 3 present the estimate from log-linear, examining spending over the past month and twelve months, respectively. Inflation expectations are entered as a continuous variable truncated at ± 30 . All regressions include controls for expected economic growth and a standard set of sociodemographic characteristics: age, age squared, gender, household income, education, employment status, an East Germany dummy, household size, and city size. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table B.8: Hypothesis Test 3_b

	$H4$	F5	F7
	(1)	(2)	(3)
Inflation Expectations $E_{i,t}(\pi_{t+1})$	0.0102 (0.0133)	0.0030 (0.0029)	0.0081* (0.0032)
$E_{i,t}(\pi_{t+1}) \times Treatment$	0.0377 (0.0213)		
$Treatment$	-0.5589*** (0.1175)		
Constant	+	+	+
Controls	+	+	+
N	3,096	1,803	1,293
Pseudo R^2	0.0286	0.0392	0.0303

Note: Column 1 reports the results for Hypothesis 4, which compares 12-month quantitative (F5) and qualitative recall-based spending at household level (F7). F5 is coded as a binary indicator for positive expenses, while F7 is coded as a binary indicator for increased spending. The treatment is F7, and the estimation method is logit. Columns 2 and 3 present the estimate from a logit estimation, examining spending over the past month and the change in household spending, respectively. Inflation expectations are entered as a continuous variable truncated at ± 30 . All regressions include controls for expected economic growth and a standard set of sociodemographic characteristics: age, age squared, gender, household income, education, employment status, an East Germany dummy, household size, and city size. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table B.9: Hypothesis Test 4

	F5	F7	Test of mode difference
Mean Age	54.68 (16.19)	54.58 (16.02)	$t(3094) = 0.1733$ $p = 0.8624$
Percentage no university	45.31%	41.14%	$\chi(2) = 5.3223$ $p = 0.021$
Percentage low income	11.43%	4.72%	$\chi(2) = 42.99$ $p = 0.000$
Percentage female	39.93%	39.68%	$\chi(1) = 0.0210$ $p = 0.885$
Percentage unemployed	1.5%	1.01%	$\chi(1) = 1.4298$ $p = 0.232$
Percentage East Germany	17.03%	18.79%	$\chi(1) = 1.6081$ $p = 0.205$
<i>N</i>	1,803	1,293	3,096

Note: Low income is a total monthly net household income of €1,999 or less. F5: quantitative recall-based (12 months); F7: qualitative recall-based (household).

Table B.10: Balance Table: Sample F5 and Sample F7

	F5	F6/F7	Test of mode difference
Mean Age	54.68 (16.19)	55.00 (16.09)	$t(3593) = -0.6058$ $p = 0.5447$
Percentage no university	45.31%	44.31%	$\chi(2) = 0.7717$ $p = 0.680$
Percentage low income	11.43%	12.44%	$\chi(2) = 1.5285$ $p = 0.466$
Percentage female	39.93%	42.13%	$\chi(1) = 1.7950$ $p = 0.180$
Percentage unemployed	1.5%	1.62%	$\chi(1) = 0.0855$ $p = 0.770$
Percentage East Germany	17.03%	18.47%	$\chi(1) = 1.2834$ $p = 0.257$
<i>N</i>	1,803	1,293	3,096

Note: Low income is a total monthly net household income of €1,999 or less. F5: quantitative recall-based (12 months); F6/F7: qualitative recall-based (individual, household).

Table B.11: Balance Table: Sample F5 and Sample F6/F7

	<i>H4</i>	F5	F6/F7
	(1)	(2)	(3)
Inflation Expectations $E_{i,t}(\pi_{t+1})$	0.0021 (0.0029)	0.0030 (0.0029)	0.0044 (0.0025)
$E_{i,t}(\pi_{t+1}) \times Treatment$	0.0035 (0.0039)		
<i>Treatment</i>	-0.1008*** (0.0200)		
Constant	+	+	+
Controls	+	+	+
<i>N</i>	3,595	1,803	1,792
Pseudo R^2	0.0377	0.0392	0.0248

Note: Column 1 reports the results for Hypothesis 4, which compares 12-month quantitative (F5) and qualitative recall-based spending (F6/F7). F5 is coded as a binary indicator for positive expenses, while F6/F7 are coded as a binary indicator for increased spending. The treatment is F6/F7, and the estimation method is logit. Columns 2 and 3 present the estimate from a logit estimation, examining spending over the past month and the change in spending, respectively. Inflation expectations are entered as a continuous variable truncated at ± 30 . All regressions include controls for expected economic growth and a standard set of sociodemographic characteristics: age, age squared, gender, household income, education, employment status, an East Germany dummy, household size, and city size. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table B.12: Hypothesis Test 4 - Pooled Responses

	$H5_a$	F3	F4
	(1)	(2)	(3)
Inflation Expectations $E_{i,t}(\pi_{t+1})$	-0.0808*** (0.0178)	-0.0105*** (0.0027)	-0.0025 (0.0029)
$E_{i,t}(\pi_{t+1}) \times Treatment$	0.0790** (0.0230)		
<i>Treatment</i>	-2.7662*** (0.1492)		
Constant	+	+	+
Controls	+	+	+
<i>N</i>	3612	1,806	1,806
Pseudo R^2	0.2128	0.0531	0.0370

Note: Column 1 reports the results for Hypothesis 5_a , which compares attitude (F3) and quantitative recall-based spending over the past 3 months (F4). F3 is transformed into a binary indicator capturing a positive or neutral spending attitude; F4 is coded as binary indicators for positive expenses. The treatment is F4. The estimation method is logit. Columns 2 and 3 present the marginal effects from a logit estimation, examining attitude and past three months' spending, respectively. Inflation expectations are entered as a continuous variable truncated at ± 30 . All regressions include controls for expected economic growth and a standard set of sociodemographic characteristics: age, age squared, gender, household income, education, employment status, an East Germany dummy, household size, and city size. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table B.13: Hypothesis Test 5_a

	$H5_b$	F3	F5
	(1)	(2)	(3)
Inflation Expectations $E_{i,t}(\pi_{t+1})$	-0.0755*** (0.0171)	-0.0105*** (0.0027)	0.0030 (0.0029)
$E_{i,t}(\pi_{t+1}) \times Treatment$	0.0985*** (0.0207)		
$Treatment$	-2.4372*** (0.1299)		
Constant	+	+	+
Controls	+	+	+
N	3,604	1,802	1,802
Pseudo R^2	0.1722	0.0528	0.0390

Note: Column 1 reports the results for Hypothesis 5_b, which compares attitude (F3) and quantitative recall-based spending over the past 12 months (F5). F3 is transformed into a binary indicator capturing a positive or neutral spending attitude; F5 is coded as binary indicators for positive expenses. The treatment is F5. The estimation method is logit. Columns 2 and 3 present the marginal effects from a logit estimation, examining attitude and past twelve months' spending, respectively. Inflation expectations are entered as a continuous variable truncated at ± 30 . All regressions include controls for expected economic growth and a standard set of sociodemographic characteristics: age, age squared, gender, household income, education, employment status, an East Germany dummy, household size, and city size. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table B.14: Hypothesis Test 5_b

	$H5_c$	F3	F2
	(1)	(2)	(3)
Inflation Expectations $E_{i,t}(\pi_{t+1})$	-0.0739*** (0.0119)	-0.0102*** (0.0018)	-0.0017 (0.0022)
$E_{i,t}(\pi_{t+1}) \times Treatment$	0.0730*** (0.0158)		
$Treatment$	-2.1928*** (0.0929)		
Constant	+	+	+
Controls	+	+	+
N	7,098	3,549	3,549
Pseudo R^2	0.1526	0.0527	0.0259

Note: Column 1 reports the results for Hypothesis 5_c, which compares attitude (F3) and quantitative recall-based spending over the past month (F2). F3 is transformed into a binary indicator capturing a positive or neutral spending attitude; F2 is coded as binary indicators for positive expenses. The treatment is F2. The estimation method is logit. Columns 2 and 3 present the marginal effects from a logit estimation, examining attitude and past month's spending, respectively. Inflation expectations are entered as a continuous variable truncated at ± 30 . All regressions include controls for expected economic growth and a standard set of sociodemographic characteristics: age, age squared, gender, household income, education, employment status, an East Germany dummy, household size, and city size. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table B.15: Hypothesis Test 5_c

	$H6_a$	F3	F6
	(1)	(2)	(3)
Inflation Expectations $E_{i,t}(\pi_{t+1})$	-0.0329*** (0.0086)	-0.0043** (0.0013)	-0.0018 (0.0030)
$E_{i,t}(\pi_{t+1}) \times Treatment$	0.0309** (0.0113)		
$Treatment$	0.2112*** (0.0550)		
Constant	+	+	+
Controls	+	+	+
N	3,578	1,789	1,789
Pseudo R^2	0.0233	0.0335	0.0152

Note: Column 1 reports the results for Hypothesis 6_a, which compares attitude (F3) and qualitative recall-based spending at the individual level (F6). The treatment is F6. The estimation method is ordered probit. Columns 2 and 3 present the marginal effects from an ordered probit estimation, examining attitude and the change in individual spending, respectively. Inflation expectations are entered as a continuous variable truncated at ± 30 . All regressions include controls for expected economic growth and a standard set of sociodemographic characteristics: age, age squared, gender, household income, education, employment status, an East Germany dummy, household size, and city size. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table B.16: Hypothesis Test 6_a

	$H6_b$	F3	F7
	(1)	(2)	(3)
Inflation Expectations $E_{i,t}(\pi_{t+1})$	-0.0283** (0.0109)	-0.0038* (0.0017)	0.0046 (0.0030)
$E_{i,t}(\pi_{t+1}) \times Treatment$	0.0491** (0.0155)		
$Treatment$	0.2600*** (0.0690)		
Constant	+	+	+
Controls	+	+	+
N	2,586	1,293	1,293
Pseudo R^2	0.0318	0.0324	0.0173

Note: Column 1 reports the results for Hypothesis 6_b, which compares attitude (F3) and qualitative recall-based spending at the household level (F7). The treatment is F7. The estimation method is ordered probit. Columns 2 and 3 present the marginal effects from an ordered probit estimation, examining attitude and the change in household spending, respectively. Inflation expectations are entered as a continuous variable truncated at ± 30 . All regressions include controls for expected economic growth and a standard set of sociodemographic characteristics: age, age squared, gender, household income, education, employment status, an East Germany dummy, household size, and city size. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table B.17: Hypothesis Test 6_b

	<i>H7</i>	F3	F1
	(1)	(2)	(3)
Inflation Expectations $E_{i,t}(\pi_{t+1})$	-0.0298*** (0.0058)	-0.0042*** (0.0009)	-0.0064*** (0.0015)
$E_{i,t}(\pi_{t+1}) \times Treatment$	0.0033 (0.0076)		
<i>Treatment</i>	-0.0084 (0.0378)		
Constant	+	+	+
Controls	+	+	+
<i>N</i>	7,196	3,598	3,598
Pseudo R^2	0.0163	0.0329	0.0188

Note: Column 1 reports the results for Hypothesis 7, which compares attitude (F3) and planned spending (F1). The treatment is F1. The estimation method is ordered probit. Columns 2 and 3 present the marginal effects from an ordered probit estimation, examining attitude and planned spending, respectively. Inflation expectations are entered as a continuous variable truncated at ± 30 . All regressions include controls for expected economic growth and a standard set of sociodemographic characteristics: age, age squared, gender, household income, education, employment status, an East Germany dummy, household size, and city size. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table B.18: Hypothesis Test 7

Framing	Reference Unit		Temporal	
	<i>H1</i>	<i>H2</i>	<i>H3_a</i>	<i>H3_b</i>
Measures	F6 vs. F7	F4 vs. F5	F2 vs. F4	F2 vs. F5
Treatment	F7	F4	F2	F2
	(1)	(2)	(3)	(4)
Inflation Expectations $E_{i,t}(\pi_{t+1})$	-0.0023 (0.0212)	-0.0166 (0.0187)	0.0601 (0.0318)	0.0113 (0.0259)
$E_{i,t}(\pi_{t+1}) \times Treatment$	0.0334 (0.0192)	0.0776* (0.0324)	0.0030 (0.0272)	-0.0028 (0.0260)
<i>Treatment</i>	0.0214 (0.0828)	-0.6923*** (0.1526)	-0.7257*** (0.1169)	-2.3610*** (0.1408)
Individual Random Effects	+		+	+
Constant	+	+	+	+
Controls	+	+	+	+
<i>N</i>	2,584	840	352	542
(Pseudo) R^2	0.0137	0.0917	0.1539	0.4458

Note: This table reports the results Hypothesis Test 1-3, using disaggregated responses to the individual questions. Hypothesis 1 tests whether the effect of expected inflation depends on the reference unit, comparing responses to qualitative recall-based spending at individual (F6) and household level (F7). The treatment is F7. The estimation method is ordered probit with individual random effects. Hypothesis 2, 3_a and 3_b test whether the effect of expected inflation varies with the time frame of consumption. Column 2 (Hypothesis Test 2) compares quantitative recall-based spending over the past 3 months (F4) versus 12 months (F5); the treatment is F4. Column 3 (Hypothesis Test 3_a) compares quantitative recall-based spending over the past month (F2) with over the past 3 months (F4); the treatment is F2. Column 4 (Hypothesis Test 3_b) compares quantitative recall-based spending over the past month (F2) with over the past 12 months (F5); the treatment is F2. Columns 2-4 use log-linear estimation, and Columns 3 and 4 include individual random effects. Inflation expectations are entered as a continuous variable truncated at ± 30 . All regressions include controls for expected economic growth and a standard set of sociodemographic characteristics: age, age squared, gender, household income, education, employment status, an East Germany dummy, household size, and city size. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table B.19: Detailed Results on Hypothesis Tests 1-3

Framing	Response Mode						
	<i>H4</i> F5 vs. F7 F7 (1)	<i>H5_a</i> F3 vs. F4 F4 (2)	<i>H5_a</i> F3 vs. F5 F5 (3)	<i>H5_c</i> F3 vs. F2 F2 (4)	<i>H6_a</i> F3 vs. F6 F6 (5)	<i>H6_b</i> F3 vs. F7 F7 (6)	<i>H7</i> F3 vs. F1 F1 (7)
Inflation Expectations $E_{i,t}(\pi_{t+1})$	0.0102 (0.0133)	-0.0808*** (0.0178)	-0.0755*** (0.0171)	-0.0739*** (0.0119)	-0.0329*** (0.0086)	-0.0283** (0.0109)	-0.0298*** (0.0058)
$E_{i,t}(\pi_{t+1}) \times Treatment$	0.0377 (0.0213)	0.0790** (0.0230)	0.0985*** (0.0207)	0.0730*** (0.0158)	0.0309** (0.0113)	0.0491** (0.0155)	0.0033 (0.0076)
<i>Treatment</i>	-0.5589*** (0.1175)	-2.7662*** (0.1492)	-2.4372*** (0.1299)	-2.1928*** (0.0929)	0.2112*** (0.0550)	0.2600*** (0.0690)	-0.0084 (0.0378)
Individual Random Effects		+	+	+	+	+	+
Constant	+	+	+	+	+	+	+
Controls	+	+	+	+	+	+	+
<i>N</i>	3,096	3,612	3,604	7,098	3,578	2,586	7,196
Pseudo R^2	0.0286	0.2128	0.1722	0.1526	0.0233	0.0318	0.0163

Note: This table reports the results for hypotheses 4-7, using disaggregated responses to the individual questions. Hypothesis 4 to 7 test whether the effect of expected inflation depends on the response mode. Column 1 (Hypothesis Test 4) compares 12-month quantitative (F5) and qualitative recall-based spending at household level (F7). F5 is coded as a binary indicator for positive expenses, while F7 is coded as a binary indicator for increased spending. The treatment is F7, and the estimation method is logit. Column 2 (Hypothesis Test 5_a) and Column 3 (Hypothesis Test 5_b) compare attitude (F3) with 3-month (F4) and 12-month (F5) quantitative recall-based spending respectively. Column 4 (Hypothesis Test 5_c) compare attitude (F3) with 1-month quantitative recall-based spending (F2). For Columns 2-4, F3 is transformed into a binary indicator capturing a positive or neutral spending attitude; F2, F4 and F5 are coded as binary indicators for positive expenses. The treatment is F2, F4 and F5 respectively. The estimation method is logit with individual random effects. Column 5 (Hypothesis Test 6_a) compares attitude (F3) with qualitative recall-based spending at the individual level (F6). The treatment is F6. Column 6 (Hypothesis Test 6_b) compares attitude (F3) with qualitative recall-based spending at the household level (F7). The treatment is F7. Columns 5 and 6 use ordered probit estimation with individual random effects. Column 7 (Hypothesis Test 7) compares attitude (F3) with planned spending (F1). The treatment is F1, and the estimation method is ordered probit with individual random effects. Inflation expectations are entered as a continuous variable truncated at ± 30 . All regressions include controls for expected economic growth and a standard set of sociodemographic characteristics: age, age squared, gender, household income, education, employment status, an East Germany dummy, household size, and city size. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table B.20: Detailed Results on Hypothesis Tests 4-7

B.5 Robustness Checks

This section presents robustness checks of the baseline estimations. Tables B.21 and B.22 report the baseline results estimated using OLS. In addition, we re-estimate Hypothesis Test 2 (Tables B.23,B.24) and Hypothesis Tests 3, 3_a , and 3_b (Tables B.25, B.26) using Tobit and two-part models.

Framing	Reference Unit	Temporal	
	<i>H1</i>	<i>H2</i>	<i>H3</i>
Measures	F6 vs. F7	F4 vs. F5	F2 vs. F4/F5
Treatment	F7	F4	F2
	(1)	(2)	(3)
Inflation Expectations $E_{i,t}(\pi_{t+1})$	-0.0001 (0.0058)	-0.0166 (0.0187)	0.0084 (0.0165)
$E_{i,t}(\pi_{t+1}) \times Treatment$	0.0081 (0.0050)	0.0776* (0.0324)	0.0056 (0.0230)
<i>Treatment</i>	0.0058 (0.0214)	-0.6923*** (0.1526)	-1.7226*** (0.1069)
Individual Random Effects	+		+
Constant	+	+	+
Controls	+	+	+
<i>N</i>	2,584	840	1,279
R^2	0.0077	0.0917	0.2490

Note: This table reports the results for hypothesis test 1-3. All results are estimated using OLS. Column 1 examines whether the relationship between inflation expectations and reported durable spending depends on the reference unit (individual vs. household), based on responses to qualitative recall-based spending at the individual (F6) and household level (F7) (Hypothesis Test 1). Columns 2 and 3 assess whether the time horizon of the consumption question affects the estimated relationship. Column 2 compares 3-month (F4) and 12-month quantitative recall-based spending (F5) using a between-subjects design (Hypothesis Test 2). Column 3 contrasts 1-month (F2) with the pooled responses from 3-month (F4) and 12-month quantitative recall-based spending (F5) using within-subject variation (Hypothesis Test 3). Inflation expectations are entered as a continuous variable truncated at ± 30 . All regressions include controls for expected economic growth and a standard set of sociodemographic characteristics: age, age squared, gender, household income, education, employment status, an East Germany dummy, household size, and city size. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table B.21: Hypothesis Tests 1-3: OLS Estimation

Framing	Response Mode			
	<i>H4</i>	<i>H5</i>	<i>H6</i>	<i>H7</i>
Measures	F5 vs. F7	F3 vs. F4/F5	F3 vs. F6/F7	F3 vs. F1
Treatment	F7	F5/F5	F6/F7	F1
	(1)	(2)	(3)	(4)
Inflation Expectations $E_{i,t}(\pi_{t+1})$	0.0023 (0.0029)	-0.0137*** (0.0030)	-0.0150*** (0.0038)	-0.0140*** (0.0026)
$E_{i,t}(\pi_{t+1}) \times Treatment$	0.0074 (0.0046)	0.0155*** (0.0041)	0.0194*** (0.0055)	0.0015 (0.0035)
<i>Treatment</i>	-0.1133*** (0.0235)	-0.3484*** (0.0200)	0.1047*** (0.0266)	-0.0042 (0.0182)
Individual Random Effects		+	+	+
Constant	+	+	+	+
Controls	+	+	+	+
<i>N</i>	3,096	3,562	3,580	7,196
<i>R</i> ²	0.0347	0.1905	0.0553	0.0000

Note: This table reports the results for hypothesis tests 4-7. All results are estimated using OLS and Columns 2-4 include individual random effects. Column 1 (Hypothesis Test 4) compares 12-month quantitative (F5) and qualitative recall-based spending at the household level (F7). F5 is coded as a binary indicator for positive expenses, while F7 is coded as a binary indicator for increased spending. The treatment is F7. Column 2 (Hypothesis Test 5) compares attitude (F3) with the pooled responses of 3-month (F4) and 12-month quantitative recall-based spending (F5). F3 is transformed into a binary indicator capturing a positive or neutral spending attitude; F4 and F5 are coded as binary indicators for positive expenses. The treatment is F4/F5. Column 3 (Hypothesis Test 6) compares attitude (F3) with the pooled responses of qualitative recall-based spending at the individual (F6) and household level (F7). The treatment is F6/F7. Column 4 (Hypothesis Test 7) compares attitude (F3) with (planned spending) F1. The treatment is F1. Inflation expectations are entered as a continuous variable truncated at ± 30 . All regressions include controls for expected economic growth and a standard set of sociodemographic characteristics: age, age squared, gender, household income, education, employment status, an East Germany dummy, household size, and city size. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table B.22: Hypothesis Tests 4-7: OLS Estimation

	<i>H2</i>
	Tobit (1)
Inflation Expectations $E_{i,t}(\pi_{t+1})$	11.34 (145.22)
$E_{i,t}(\pi_{t+1}) \times Treatment$	-162.07 (248.93)
$Treatment$	-14072.07*** (1238.85)
Constant	+
Controls	+
N	2,787
Pseudo R^2	0.0173

Note: The table reports the results for Hypothesis 2, which tests whether the effect of expected inflation varies with the time frame of consumption by comparing responses to quantitative recall-based spending over the past 3 (F4) and 12 months (F5). The treatment is F4. The estimation method is Tobit. Inflation expectations are entered as a continuous variable truncated at ± 30 . All regressions include controls for expected economic growth and a standard set of sociodemographic characteristics: age, age squared, gender, household income, education, employment status, an East Germany dummy, household size, and city size. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table B.23: Hypothesis Test 2 - Tobit Estimation

	<i>H2</i>	
	Logit (1)	OLS (2)
Inflation Expectations $E_{i,t}(\pi_{t+1})$	-0.0054 (0.0147)	0.0093 (0.0152)
$E_{i,t}(\pi_{t+1}) \times Treatment$	-0.0243 (0.0253)	0.0517 (0.0321)
$Treatment$	-1.4731*** (0.1224)	-0.4605** (0.1471)
Constant	+	+
Controls	+	+
N	2,787	1,091
Pseudo R^2	0.1309	0.0499

Note: The table reports the results for Hypothesis 2, which tests whether the effect of expected inflation varies with the time frame of consumption by comparing responses to quantitative recall-based spending over the past 3 (F4) and 12 months (F5). The estimation follows a two-part model: the first part is estimated using a logit model for the probability of positive spending, and the second part uses a log-linear specification for the conditional amount of spending. Inflation expectations are entered as a continuous variable truncated at ± 30 . All regressions include controls for expected economic growth and a standard set of sociodemographic characteristics: age, age squared, gender, household income, education, employment status, an East Germany dummy, household size, and city size. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table B.24: Hypothesis Test 2 - Two-Part Estimation

	<i>H3</i>	<i>H3_a</i>	<i>H3_b</i>
	(1)	(2)	(3)
Inflation Expectations $E_{i,t}(\pi_{t+1})$	45.34 (134.62)	-137.16 (175.24)	43.66 (134.28)
$E_{i,t}(\pi_{t+1}) \times Treatment$	-206.92 (170.07)	-147.05 (145.09)	-209.78 (169.70)
<i>Treatment</i>	-12,139.11*** (820.61)	-4379.02*** (670.66)	-12,099.22*** (817.65)
Constant	+	+	+
Controls	+	+	+
<i>N</i>	3,082	2,436	3,086
Pseudo R^2	0.0191	0.0138	0.0191

Note: The table reports the results for Hypothesis *H3*, *3_a* and *3_b*, which tests whether the effect of expected inflation varies with the time frame of consumption by comparing responses to 1-month (F2) to 3-month (F4) and 12-month quantitative recall-based spending (F5), pooled (Column 1) and respectively (Columns 2 and 3). The treatment is F2. The estimation method is Tobit and includes individual random effects. Inflation expectations are entered as a continuous variable truncated at ± 30 . All regressions include controls for expected economic growth and a standard set of sociodemographic characteristics: age, age squared, gender, household income, education, employment status, an East Germany dummy, household size, and city size. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table B.25: Hypothesis Test 3 - Tobit Estimation

	<i>H3</i>		<i>H3_a</i>		<i>H3_b</i>	
	Logit (1)	OLS (2)	Logit (3)	OLS (4)	Logit (5)	OLS (6)
Inflation Expectations $E_{i,t}(\pi_{t+1})$	0.0001 (0.0905)	0.0084 (0.0160)	-0.0874 (0.0651)	0.0625* (0.0310)	-0.0034 (0.0866)	0.0084 (0.0159)
$E_{i,t}(\pi_{t+1}) \times Treatment$	-0.1394 (0.0912)	0.0056 (0.0230)	-0.0317 (0.1125)	0.0028 (0.0274)	-0.1367 (0.0865)	0.0068 (0.0230)
<i>Treatment</i>	-6.0208*** (0.6542)	-1.7226*** (0.1059)	-3.7514*** (0.5225)	-0.7114*** (0.1241)	-5.8719*** (0.5845)	-1.7280*** (0.1057)
Constant	+	+	+	+	+	+
Controls	+	+	+	+	+	+
<i>N</i>	3,082	1,279	2,436	433	3,086	1,283
Pseudo R^2	0.1722	0.2490	0.0884	0.1292	0.1720	0.2496

Note: The table reports the results for Hypothesis *H3*, *3_a* and *3_b*, which tests whether the effect of expected inflation varies with the time frame of consumption by comparing responses to 1-month (F2) to 3-month (F4) and 12-month quantitative recall-based spending (F5), pooled (Column 1,2) and respectively (Columns 2-6). The treatment is F2. The estimation follows a two-part random-effects model: the first part is estimated using a logit model for the probability of positive spending, and the second part uses a log-linear specification for the conditional spending amount. Inflation expectations are entered as a continuous variable truncated at ± 30 . All regressions include controls for expected economic growth and a standard set of sociodemographic characteristics: age, age squared, gender, household income, education, employment status, an East Germany dummy, household size, and city size. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table B.26: Hypothesis Test 3 - Two-Part Estimation

C Replications

This section explains the replications of the papers by [Andrade et al. \(2023\)](#); [Ichiue and Nishiguchi \(2015\)](#) and [Dräger and Nghiem \(2021\)](#), presents the results using our data and compares it to the original results.

C.1 Replication of Dräger and Nghiem (2021)

Evaluating a new survey on German households, [Dräger and Nghiem \(2021\)](#) test whether individual consumption spending decisions are formed according to a Euler equation model. They find that consumers are more likely to increase current spending if they plan to increase spending in the future and if they expect higher inflation.

Survey Questions. For their analysis, they employ the following questions for inflation expectations:

1. *How do you think prices in general have developed over the past 12 months? They have...*
 - 1 - increased strongly
 - 2 - increased moderately
 - 3 - increased slightly
 - 4 - stayed about the same
 - 5 - fallen

2. *By what percentage do you think prices in general will increase or decrease on average over the next 12 months?*

For consumption measures, they employ the following measures:

3. *How would you say your total expenditures in the past 12 months compare to an average year in the past? They were...*
 - 1 - considerably higher
 - 2 - about the same
 - 3 - considerably lower

4. *When looking at the current economic situation, do you think now is a good or a bad time for people to make large purchases such as furniture or electronic devices and so on?*

- 1 - Now is a good time
 - 2 - Neither a good nor a bad time
 - 3 - Now is a bad time
5. *How would you say your total expenditures will be in the next 12 months compared to an average year in the past? They will be...*
- 1 - considerably higher
 - 2 - about the same
 - 3 - considerably lower

The third question corresponds to our questions on qualitative recall-based spending at the individual (F6) and household level (F7), the fourth to attitude (F3), and the fifth to planned spending (F1). However, while our measures focus exclusively on durable consumption, [Dräger and Nghiem \(2021\)](#) consider both overall and durable consumption. *Specifications.* [Dräger and Nghiem \(2021\)](#) estimate ordered probit models in the following regression setup:

$$Pr(c_{it}^{current} = 3) = Pr(\kappa_2 < \beta_1 c_{it}^e + \beta_2 i_{it}^e + \beta_3 \pi_{it}^e + X_{it}^{controls'} \Gamma + u_{it} \leq \kappa_3) \quad (C.1)$$

where $\kappa_{2,3}$ denote the estimated cut-points between the three answer categories for qualitatively measured current consumption. c_{it}^e measures consumers' reported qualitatively measure of expected spending in the next twelve months and i_{it}^e and π_{it}^e are individual expectations reported in t on nominal interest rates and the inflation rate over the next twelve months. X_{it} includes demographic variables (age, squared age, income, employment status, education, and risk aversion), and further macroeconomic expectations, namely, expectations on the general economic situation and on employment. We replicate the estimation in the same way, without controlling for risk aversion, and with inflation instead of price expectations.

Results. [Dräger and Nghiem \(2021\)](#) find that higher inflation expectations are associated with stronger increases in past overall spending and lower willingness to purchase durable goods. Our results differ with respect to realized consumption, likely reflecting our focus on durable spending versus their measure of overall consumption (Table C.1). For attitudes toward purchasing, the findings are broadly consistent, except for a significant positive estimate for planned consumption in our data, while their estimate remains insignificant (Table C.2).

Individual-Level Qualitative Recall-Based Spending						
	Our Results			Original Results		
	(1)	(2)	(3)	(4)	(5)	(6)
C_{it}^e	-0.0510*** (0.0126)	-0.0516*** (0.0126)	-0.0847*** (0.023)	0.151* (0.062)	0.153* (0.076)	0.103 (0.096)
$i_{qual,it}^e$	0.0173 (0.0105)	0.0172 (0.0105)		-0.016 (0.042)	-0.021 (0.047)	
$i_{quant,it}^e$			0.0041 (0.0113)			-0.027 (0.062)
$\pi_{qual,it}^e$	-0.0111 (0.0093)			0.063* (0.025)		
$\pi_{quant,it}^e$		-0.0024 (0.0023)	-0.0071 (0.0040)		0.011* (0.006)	0.021 (0.014)
Constant	+	+	+	+	+	+
Controls	+	+	+	+	+	+
N	1,790	1,790	607	278	246	150
Pseudo R^2	0.0216	0.0215	0.0354	0.130	0.119	0.181

Note: The table reports marginal effects from ordered probit estimations. The dependent variable is the individual-level qualitative recall-based spending. The first three columns are based on our results, Column 4-6 are based on the results by Dräger and Nghiem (2021). Short-term inflation expectations are measured both qualitatively and quantitatively and are truncated at ± 30 . In addition, the models include expectations regarding interest rates on savings accounts measured both qualitatively and quantitatively as well as planned spending. The quantitative interest rate is truncated at 10%. The analysis is based on a single wave of survey data. All specifications include controls for expected economic growth (binary indicator), expected unemployment (binary indicator) and a standard set of sociodemographic characteristics: age, age squared, gender, household income, education, employment status, a dummy for residence in East Germany, household size, and city size. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table C.1: Replication of Dräger and Nghiem (2021) - Change in Past Spending

	Attitude					
	Our Results			Original Results		
	(1)	(2)	(3)	(4)	(5)	(6)
C_{it}^e	0.0366*** (0.0038)	0.0360*** (0.0043)	0.0386*** (0.0073)	0.029 (0.038)	0.034 (0.036)	0.065 (0.073)
$i_{qual,it}^e$	0.0007 (0.0038)	0.0005 (0.0038)		-0.006 (0.036)	-0.009 (0.039)	
$i_{quant,it}^e$			0.0014 (0.0038)			0.010 (0.037)
$\pi_{qual,it}^e$	-0.0070* (0.0033)			-0.022 (0.027)		
$\pi_{quant,it}^e$		-0.0026** (0.0009)	-0.0028* (0.0012)		-0.041** (0.012)	-0.037*** (0.013)
Constant	+	+	+	+	+	+
Controls	+	+	+	+	+	+
N	3,597	3,597	1,207	271	243	149
Pseudo R^2	0.0578	0.0590	0.0834	0.129	0.201	0.300

Note: The table reports marginal effects from ordered probit estimations. The dependent variable is the individual's attitude toward spending. The first three columns are based on our results, Column 4-6 are based on the results by Dräger and Nghiem (2021). Short-term inflation expectations are measured both qualitatively and quantitatively and are truncated at ± 30 . In addition, the models include expectations regarding interest rates on savings accounts measured both qualitatively and quantitatively as well as planned spending. The quantitative interest rate is truncated at 10%. The analysis is based on a single wave of survey data. All specifications include controls for expected economic growth (binary indicator), expected unemployment (binary indicator) and a standard set of sociodemographic characteristics: age, age squared, gender, household income, education, employment status, a dummy for residence in East Germany, household size, and city size. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table C.2: Replication of Dräger and Nghiem (2021) - Attitude

C.2 Replication of [Andrade et al. \(2023\)](#)

Using survey data on French households over the time period of 2004 to 2018, [Andrade et al. \(2023\)](#) show that households expecting stable prices have a lower propensity to buy durable goods than those expecting positive inflation. In contrast, for households expecting positive inflation, variation in expectations does not translate into significant differences in durable consumption.

Survey Questions. For their analysis, [Andrade et al. \(2023\)](#) employ the following questions for inflation expectations:

1. *In comparison with the past 12 months, how do you expect consumer prices will develop in the next 12 months? They will ...*

- 1 - Increase more rapidly
- 2 - Increase at the same rate
- 3 - Increase at a slower rate
- 4 - Stay about the same
- 5 - Fall

2. *By how many percents do you think consumer prices will go up/down over the next 12 months?*

Consumer prices will increase/decrease by XX.X%

The survey design is such that the quantitative question is not asked to individuals who previously answered that prices “stay about the same”. Therefore, [Andrade et al. \(2023\)](#) impute 0% to the quantitative inflation rate that these households expect. It is important to note that our data include only inflation expectations while their survey elicits price expectations.

For consumption, they employ the following two survey questions:

3. *Have you made any major purchase over the last 12 months? (such as furniture, household appliances, electronic or computer equipment, etc.)*

- 1 - Yes
- 2 - No

4. *In view of the current general economic situation, do you think now is the right time for people to make major purchases (such as furniture, household appliances, electronic or computer equipment, etc.)?*

1 - Yes, now is the right time.

2 - It is neither the right time nor the wrong time.

3 - No, it is the wrong time.

The third question aligns with our survey question on quantitative recall-based spending over the past 12 months (F5). The fourth question aligns with our question on attitude (F3).

Specification. Andrade et al. (2023) consider the decision to buy durable goods between $t - 1$ and t , $b_{i,t}$, a binary process that follows:

$$b_{i,t} = \begin{cases} 1 & \text{if } z_{i,t}^* > 0 \\ 0 & \text{otherwise} \end{cases} \quad (\text{C.2})$$

where $z_{i,t}^*$ is a latent variable which evolves according to

$$z_{i,t}^* = \beta_0 + \beta_1 \pi_{i,t|t+1}^e + \gamma X_{i,t} + \lambda_t + \mu z_i + \epsilon_{i,t} \quad (\text{C.3})$$

where $\pi_{i,t|t+1}^e$ is the expected inflation formed by household i at date t for the next year. $X_{i,t}$ is a set of controls for other individuals' beliefs such as perceived inflation, planned spending, assessment about their own financial situation, and whether they think it is the right time to save. λ_t are time fixed-effects and z_i is a set of fixed household characteristics such as age, compositions of the household, occupation, income, working regime, education, gender, region and city size. We employ the same controls, except for perceived inflation, the assessment about their own financial situation and whether they think it is the right time to save as we either do not have sufficiently data on these variables or no data at all.

Methodology. Andrade et al. (2023) decompose inflation expectations into an extensive margin—households expecting prices to remain stable or increase—and an intensive margin—the expected rate of inflation, conditional expecting positive inflation. As we do not have data on price expectations, we use our inflation expectations data to create an artificial variable of the extensive margin of price expectations. The variable equals one if household expect positive inflation and zero if they expect zero inflation.

Results. Andrade et al. (2023) show that households expecting stable prices are significantly less likely to have purchased durable goods in the past year than those expecting

inflation, with the extensive margin driving the link between inflation expectations and spending. Our results for durable goods are directionally consistent but statistically insignificant, likely due to smaller sample size (Table C.3). In contrast, our findings on consumption attitudes differ from their French results but align with their robustness check using German data (Table C.4). For attitudes, the intensive margin appears more relevant in our data, whereas [Andrade et al. \(2023\)](#) emphasize the extensive margin. Nonetheless, we share the finding—both in terms of direction and significance—that inflation expectations matter for households’ attitude towards durable consumption.

Independent Var.:	Spending over the Past 12 Months					
	Our Results			Original Results		
	All π^e (1)	Intensive (2)	Extensive (3)	All π^e (4)	Intensive (5)	Extensive (6)
π^e	-0.0011 (0.0032)	-0.0061 (0.0040)		0.005 (0.028)	-0.058 (0.0039)	
$1(\pi^e > 0)$			0.0572 (0.0350)			1.047*** (0.337)
Constant	+	+	+	+	+	+
Controls	+	+	+	+	+	+
N	1,801	1,591	1,801	135,337	90,765	135,337

Note: The table reports marginal effects from logit estimations examining the relationship between expected inflation and realized spending over the past 12 months. The first three columns are based on our data, the Columns 4-6 are the original results from [Andrade et al. \(2023\)](#). Spending is measured as a binary indicator for positive expenditures. Short-term inflation expectations are measured quantitatively and truncated at ± 30 . In Columns 2 and 5, the independent variable includes only strictly positive values of expected inflation (intensive margin). In Columns 3 and 6, expected inflation is captured by a binary indicator equal to one for strictly positive expectations. The analysis is based on a single survey wave. All models include controls for expected economic growth (binary indicator), planned spending and a standard set of sociodemographic characteristics: age, age squared, gender, household income, education, employment status, an East Germany dummy, household size, and city size. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table C.3: Replication of [Andrade et al. \(2023\)](#) - Past Spending

C.3 Replication of [Ichiue and Nishiguchi \(2015\)](#)

Using survey data on Japanese households from 2004 to 2018, [Ichiue and Nishiguchi \(2015\)](#) find evidence supporting the standard theoretical model: consumers with higher expected inflation tend to report higher real household spending compared to one year ago, but anticipate reducing it in the future.

Survey Questions. For their analysis, [Ichiue and Nishiguchi \(2015\)](#) employ qualitative questions for expected and perceived inflation:

1. *What is your outlook for prices 1 year from now?*
 - Will go up significantly

Independent Var.:	Attitude					
	Our Results			Original Results		
	All π^e (1)	Intensive (2)	Extensive (3)	All π^e (4)	Intensive (5)	Extensive (6)
π^e	-0.0037*** (0.0009)	-0.0062*** (0.0013)		0.006 (0.016)	-0.028 (0.020)	
$1(\pi^e > 0)$			0.0058 (0.0091)			0.620** (0.187)
Constant	+	+	+	+	+	+
Controls	+	+	+	+	+	+
N	3,598	3,210	3,598	132,897	89,346	132,897

Note: The table reports marginal effects from ordered probit estimations assessing the impact of expected inflation on attitudes toward spending. The first three columns are based on our data, the Columns 4-6 are the original results from [Andrade et al. \(2023\)](#). Short-term inflation expectations are measured quantitatively and truncated at ± 30 . In Columns 2 and 5, the independent variable includes only strictly positive values of expected inflation (intensive margin). In Columns 3 and 6, expected inflation is captured by a binary indicator equal to one for strictly positive expectations. The analysis is based on a single survey wave. All models include controls for expected economic growth (binary indicator), planned spending and a standard set of sociodemographic characteristics: age, age squared, gender, household income, education, employment status, an East Germany dummy, household size, and city size. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table C.4: Replication of [Andrade et al. \(2023\)](#) - Attitude

- Will go up slightly
- Will remain almost unchanged
- Will go down slightly
- Will go down significantly

2. *How do you think prices have changed compared with 1 year ago?*

- Have gone up significantly
- Have gone up slightly
- Have remained almost unchanged
- Have gone down slightly
- Have gone down significantly

For consumption, they employ the following two survey questions:

3. *How does your household plan to change its spending within the next 12 months?*

- 1 - Will increase
- 2 - Will neither increase nor decrease
- 3 - Will decrease

4. *How has your household changed its spending compared with 1 year ago?*

- 1 - Has increased
- 2 - Has neither increased nor decreased
- 3 - Has decreased

The third question aligns with our question on planned spending (F1). The fourth question aligns with our question on qualitative recall-based spending at the household level (F7).

Methodology. Ichiue and Nishiguchi (2015) estimate the effect of expected inflation on changes in real durable consumption. To do so, they construct an artificial measure of real spending. For planned spending, they grade question 3 with +1, 0, -1 for “increase”, “neither” and “decrease”. They also assign for questions 1, “up significantly” to -1, “up slightly” to -0.5, and so on. The responses to the artificial question about real spending are then defined as “increase significantly” if the total points are 2, “increase” if the total points are in the range of 1 to 1.5, and so on. The composite real spending measure is then categorized into ordered response levels depending on the total points. An analogous procedure is applied for past real spending, combining questions 2 and 4.

Specification. Ichiue and Nishiguchi (2015) assume that there is an underlying unobserved variable of the expected change in real spending which can be represented as follows:

$$y_i^* = \beta' X_i + \epsilon_i \tag{C.4}$$

where X_i is a vector of dummies for expected inflation and dummies of controls variables, including outlook for economic conditions, expected income, sex, age, employment status, income, household composition and time dummies. The specification is estimated using ordered probit.

In our replication, we focus on planned spending as the sole dependent variable, since we lack sufficient data on inflation perceptions for the construction of the past real spending variable. We otherwise follow their methodology and control variables, excluding only income expectations. Because our data capture inflation expectations directly (rather than price expectations), we map expected inflation into price expectations for consistency: expectations below -4 are coded as "prices decrease significantly", between -4 and -0.5 as "prices decrease slightly", between -0.5 and 0.5 as "prices remain stable", and so on.

Results. Ichiue and Nishiguchi (2015) show that higher inflation expectations are associated with decreased planned spending for the future. Our results are largely consistent with their findings in terms of direction, although not all estimates are statistically

significant—possibly due to limited sample size (Table C.5).

	Real Change in Planned Spending	
	Our Results	Original Results
	(1)	(2)
Prices 1 year from now		
Up significantly	-0.0024** (0.0009)	-2.43** (0.04)
Up slightly	-0.0012 (0.0009)	-0.12** (0.01)
Down slightly	0.0000 (0.0007)	1.28** (0.03)
Down significantly	-0.0014* (0.0007)	2.08** (0.08)
Constant	+	+
Controls	+	+
N	3,601	56,267
Pseudo R^2	0.0498	0.3112

Note: The table reports the marginal effects of an ordered probit estimation. The dependent variables capture the real change in planned spending. The first column is based on our data, and the second column is based on the results by [Ichiue and Nishiguchi \(2015\)](#). The key independent variables are categorical indicators based on short-term inflation expectations: (i) significantly increasing prices (expected inflation > 4%), (ii) slightly increasing prices (expected inflation between 0.5% and 4%), (iii) slightly decreasing prices (expected inflation between -0.5% and 4%), and (iv) significantly decreasing prices (expected inflation < 4%). The reference category is stable prices (expected inflation between -0.5% and 0.5%). The analysis is based on a single wave of data. All specifications include a control for expected economic growth (binary indicator), as well as sociodemographic controls: age, age squared, gender, household income, education, employment status, an East Germany dummy, household size, and city size. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table C.5: Replication of [Ichiue and Nishiguchi \(2015\)](#) - Real Planned Spending

D Internal and External Validity

D.1 Internal Validity

Model / Panel	Indicators included	Standardized loadings (λ)	Interpretation
<i>Panel A: Attitude + Quantitative Realized Spending (1m, 3m)</i>			
	Attitude	0.17	Very weak link
	Past month's spending	0.74	Moderate link
	Past 3 months' spending	0.95	Very strong link
			<i>Attitude does not cohere with realized spending.</i>
<i>Panel B: Attitude + Quantitative Realized Spending (1m, 12m)</i>			
	Attitude	0.61	Moderate link
	Past month's spending	0.26	Weak link
	Past 12 months' spending	0.17	Weak link
			<i>Distinct constructs: realized spending weakly related to attitude.</i>
<i>Panel C: Attitude + Qualitative Realized Spending (Individual vs. Household)</i>			
	Attitude	Non-convergent	
	Change in spending (individual level)		
	Change in spending (household level)		<i>Heywood case: conceptual mismatch.</i>

Note: The table summarizes three confirmatory factor analyses. Panel A and Panel B combine respondents' attitude with quantitative measures of realized spending over different horizons (past 1, 3, or 12 months) to test whether attitudes and realized spending can be represented by a single latent construct. Panel C includes attitude together with qualitative realized spending measures (changes in individual and household spending). Standardized loadings (λ) from one-factor confirmatory factor analyses estimated using WLSMV. "Heywood" indicates a negative residual variance or non-convergence. Models with $df = 0$ reproduce observed covariances exactly; fit indices are omitted because they are uninformative for just-identified models. The results show that willingness-to-spend attitudes cluster with forward-looking or planning-type variables, but not with realized spending behavior.

Table D.1: Confirmatory Factor Analyses of Attitude, Planned, and Realized Spending Measures

D.2 External Validity: Correlation Exercise of Consumption Measures

This section outlines the methodology used to compute the correlations between survey-based measures of consumption and aggregate consumption. In our dataset, repeated observations are available for planned spending (F1) and the 1-month quantitative recall-based measure (F2), while the remaining survey items were collected in a single wave. To supplement our analysis, we additionally draw on the Michigan Survey, which provides a time series of the attitudinal measure ([University of Michigan, Survey Research Center, 2025](#)).

Monthly Spending. We estimate the correlation between average reported quantitative recall-based spending on durable goods and aggregate consumption ([International Monetary Fund, 2025](#); Real Final Consumption Expenditure for Germany [NCRSAXDCDEQ],

retrieved from FRED). The current spending variable, elicited at time t , reflects individual spending over the preceding month, i.e., from $t - 1$ to t . To align with the quarterly frequency of the national accounts data, we compute the quarterly average of current quantitative recall-based spending at period q and match it to aggregate consumption in the same quarter. The resulting correlation coefficient is 0.84, indicating that self-reported durable goods spending closely tracks aggregate consumption dynamics.

Planned Spending. We estimate the correlation between the share of individuals reporting plans to increase spending and subsequent aggregate consumption growth, measured by the quarterly real final consumption expenditure for Germany ([International Monetary Fund, 2025](#); Real Final Consumption Expenditure for Germany [NCRSAXDCDEQ], retrieved from FRED). Since aggregate consumption is reported at a quarterly frequency, we average the share of respondents indicating higher planned spending within each quarter q and match this to consumption growth in the corresponding quarter one year ahead, i.e., period $q + 4$. The resulting correlation coefficient is 0.2597, suggesting that planned spending is positively associated with realized consumption one year later, although the strength of this relationship is moderate.

Attitude. The Michigan Survey data contains monthly observations on attitude towards durable consumption at individual level for the time period 1978 till 2025. The attitude is elicited using the following survey question:

1. *About the big things people buy for their homes—such as furniture, a refrigerator, stove, television, and things like that. Generally speaking, do you think now is a good or a bad time for people to buy major household*

1 - Good

2 - Pro-con

3 - Bad

We compute the share of individuals who report that it is a good time to purchase durable goods and correlate this measure with the year-over-year percent change in real personal consumption expenditures on durable goods ([U.S. Bureau of Economic Analysis, 2025](#); Real personal consumption expenditures: Durable goods (chain-type quantity index) [DDURRA3M086SBEA], retrieved from FRED).

We consider two timing conventions for the correlation analysis. First, we match the average attitude in period t with the year-over-year percentage change in durable goods

consumption at the same time, i.e., from $t - 12$ to t . For example, consumer attitude in January 2015 is matched with the percentage change in consumption between January 2014 and January 2015. Second, we lead the consumption measure by 12 months and correlate average attitude at time t with the year-over-year change from t to $t + 12$. In this case, attitude in January 2015 is matched with the change in consumption between January 2015 and January 2016.

The contemporaneous correlation yields a coefficient of 0.3709, consistent with the magnitudes reported in [Bachmann et al. \(2015\)](#), [Andrade et al. \(2023\)](#), and [Marenčák \(2023\)](#). In contrast, the forward-looking correlation yields a coefficient of 0.0720, suggesting that positive attitude does not reliably translate into higher realized consumption one year later.