The pass-through from Inflation Perceptions to Inflation Expectations[1]

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September, 2022

[1]The views and opinions expressed in this presentation are those of the authors and do not necessarily reflect the view of the Deutsche Bundesbank or the Eurosystem.

Inflation Expectations and Inflation Perceptions

of households increased substantially over the last months in Germany

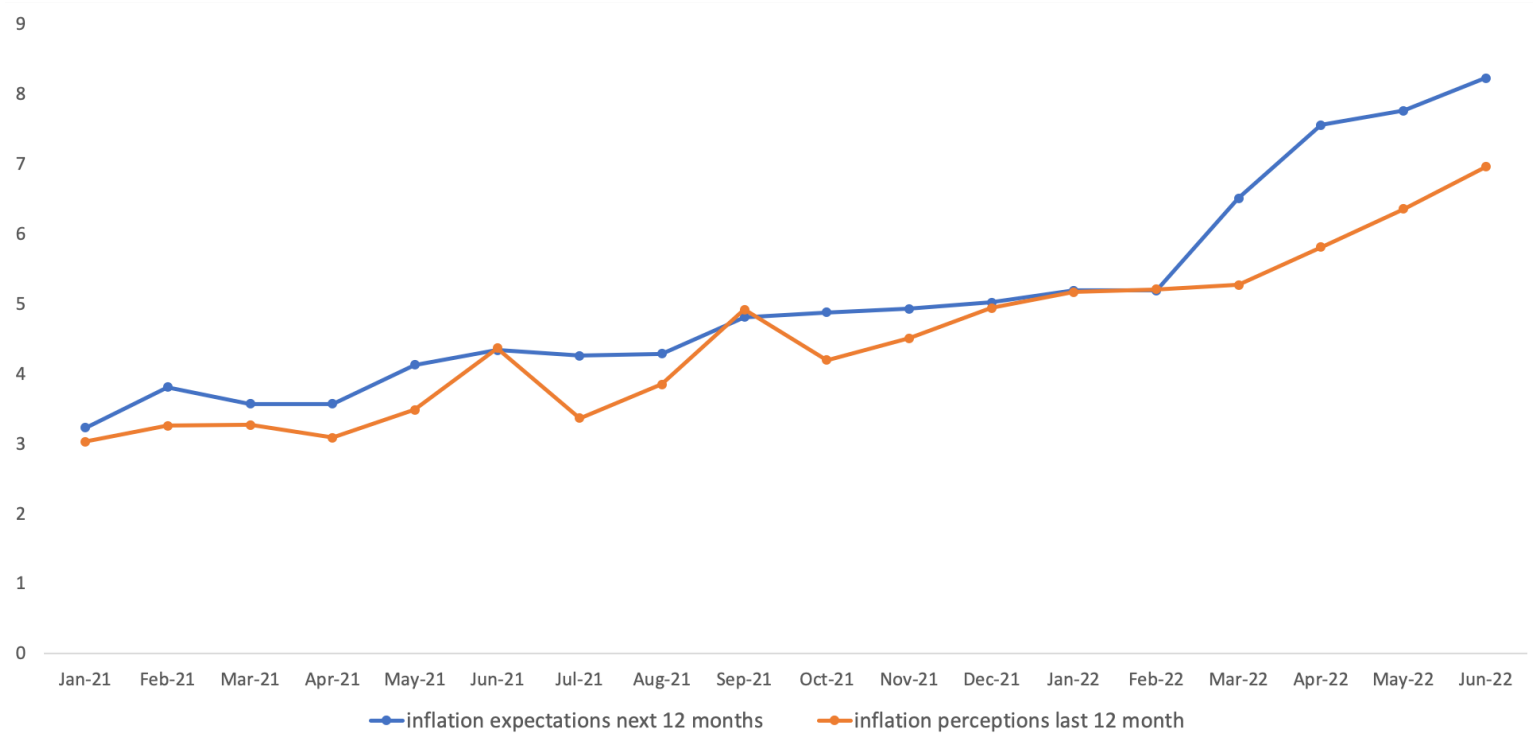

Figure: Dynamics of mean inflation expectations and perceptions

Sources: Bundesbank Online Panel Households (BOP-HH). Expectations and perceptions: Weighted means, observations truncated to interval [-5;+30].

▸ median ▸ CPI ▸ Long-term Expectations

Policy Relevance of Inflation Expectations

- Households' inflation expectations may influence spending
  (e.g., Duca-Radu et al., 2021)

"*For the actual process of setting wages and prices, it is the expectations of the public that matter most.*"
(Christine Lagarde, 2020)

"*There is an important role of the central bank in shaping the expectations of the general public [...]*
more research is needed to understand the different factors that shape the inflation expectations of individual households."
(former ECB Vice-President Vitor Constancio, 2017)

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This Paper

Do inflation perceptions help to understand inflation expectations?

- Correlation of expectations and perceptions
  (e.g., Jonung 1981; Draeger, 2015; Arioli et al., 2017; D'Acounto et al., 2021)

1. Do perceptions drive short-term or also long-term expectations?
2. How do households form their inflation perceptions?
3. What drives the link between perceptions and expectations?
4. What does this link imply for policy?

▸ Related Literature

Preview of Results

1. Strong link between perceptions $P_{i,t}$ and expectations $\mathbb{E}\left(\pi_{i,t}\right)$
2. Perceptions matter for short- and long-term inflation expectations
3. Food/fuel prices and uncertainty influence perceptions
4. Heterogeneity in pass-through strength $P_{i,t} \rightarrow \mathbb{E}\left(\pi_{i,t}\right)$
   - Socio-economic groups
   - Periods of low versus high inflation
5. Factor moderating the pass-through strength
   - Level of uncertainty about the development of the inflation rate

The Data

The Data and Key Variables

- **Bundesbank Online Panel Households (BOP-HH)**, monthly data for 2 500 to 5 000 individuals
- **Periods covered**: April to June 2019; April 2020 to June 2022
- **Inflation Perceptions**:
  - *Quantitative*: What do you think the rate of inflation or deflation in Germany was over the past twelve months?
- **Inflation Expectations**
  - *Qualitative*: What developments do you expect in the inflation/deflation rate over the next 12 months?
  - *Probabilistic*: In your opinion, how likely is it that the rate of inflation will develop as follows over the next twelve months?
  - *Quantitative*: What do you think the rate of inflation/deflation will roughly be over the next 12 months?

▸ Survey Details ▸ Descriptives

The Perception-Expectation Link

Baseline Regression

Relationship b/w expectations (next 12 months) and perceptions (past 12 months)

$$\mathbb{E}\left(\pi_{i,t\rightarrow t+12}\right) = \beta_0 + \beta_1' X_{i,t} + \beta_2 \tilde{P}_{i,t} + F_t + \varepsilon_{i,t}$$

- $\mathbb{E}\left(\pi_{i,t\rightarrow t+12}\right)$ denotes the inflation rate household i surveyed in wave t expects for the next 12 months (percentage points).
- $X_{i,t}$ denotes a vector of controls for individual i; gender, age, age squared, education, employment status, income, region.
- $\tilde{P}_{i,t}$ is our variable of interest, household's i perceived average inflation rate over the last 12 months (percentage points).
- F_t denotes the survey-wave fixed effects.

Results

Relationship b/w expectations (next 12 months) and perceptions (past 12 months)

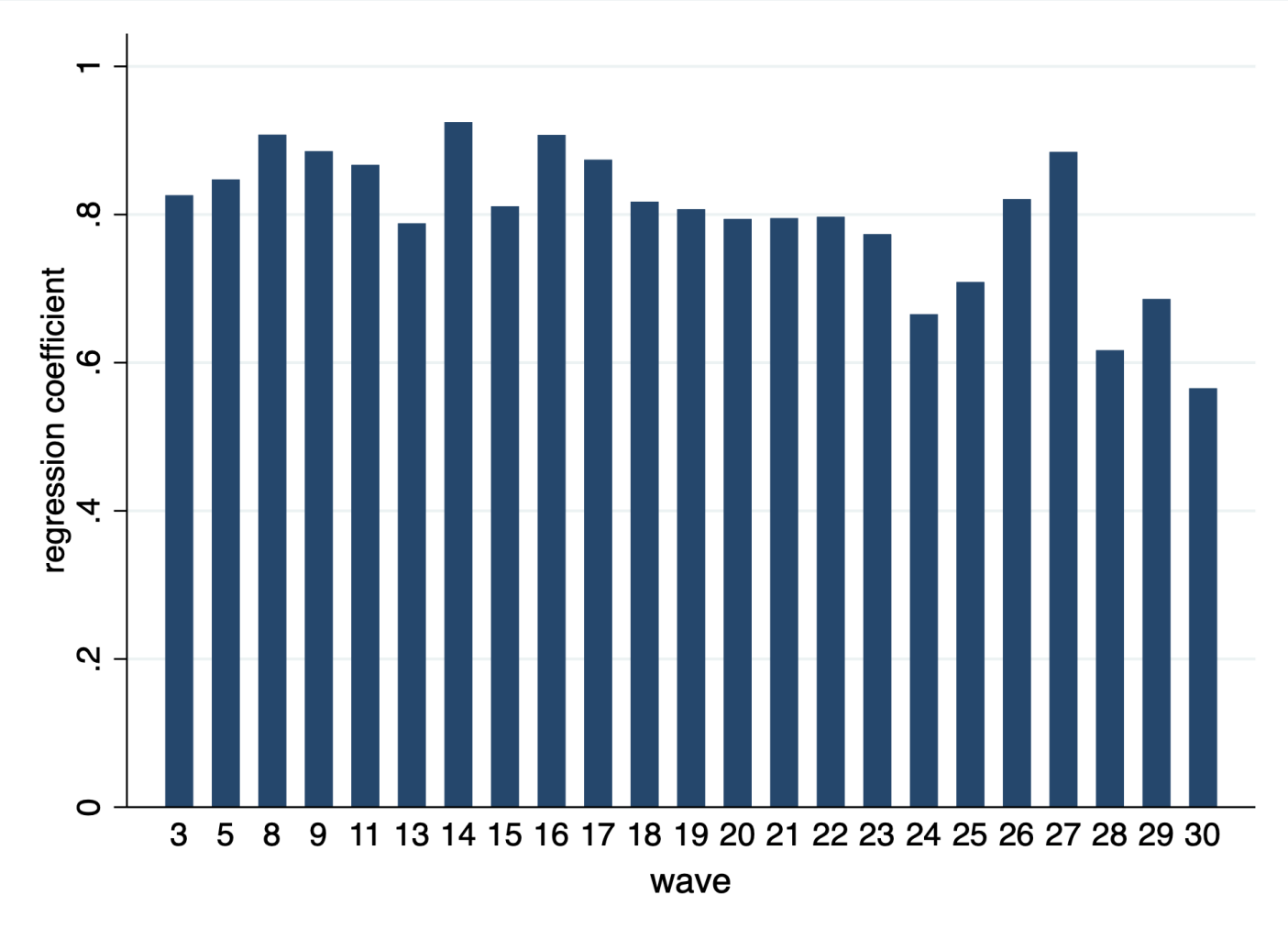
Dependent variable: **Short-term Inflation Expectations** (next 12 months)							
	OLS	OLS	OLS	OLS	panel FE	panel RE	panel Δ on Δ
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Perceptions	0.879***	0.825***	0.869***	0.806***	0.796***	0.867***	0.643***
	(0.00893)	(0.0100)	(0.00923)	(0.0104)	(0.0146)	(0.00903)	(0.0379)
Wave dummies	-	+	-	+	-	-	-
Controls	-	-	+	+	-	-	-
N	53393	53393	49567	49567	53393	53393	4770
R^2	0.535	0.555	0.535	0.558	0.450	0.450	0.324

Notes: *** p<0.001, ** p<0.01, * p<0.05. Robust standard errors (Eicker-Huber-White) are reported in parentheses. Wave controls include a dummy for each wave. Socio-demographic controls include gender, household income, education, current employment status, East residence dummy, age, age squared. Perceptions and expectations truncated [30;-5]. The data span waves 1-30 of the survey (April - June 2019, April 2020 - June 2022)

Result I: Inflation perceptions $\tilde{P}_{i,t}$ have a positive, large and significant effect on households' short-term inflation expectations.

Correlation is high at all times

Relationship b/w expectations (next 12 months) and perceptions (past 12 months)



Correlation is high at all times

... but less in high-inflation environments

Dependent variable: **Short-term Inflation Expectations**					
	before July 2021	after July 2021	full sample		
	(1)	(2)	(3)	(4)	(5)
Perceptions (past 12 months)	0.872***	0.741***	0.806***	0.806***	0.867***
	(0.0153)	(0.0144)	(0.0104)	(0.0104)	(0.0151)
High inflation (dummy)				2.126***	2.718***
				(0.115)	(0.146)
Perceptions × High inflation					-0.124***
					(0.0208)
Wave dummies	-	-	-	-	-
Controls	+	+	+	+	+
N	20702	28865	49567	49567	49567
R^2	0.578	0.486	0.558	0.558	0.560

Notes: OLS estimates. *** p<0.001, ** p<0.01, * p<0.05. Robust standard errors (Eicker-Huber-White) in parentheses. High inflation is the dummy equal to 1 for periods starting from July 2021 and 0 otherwise. Before July 2021, the German economy experienced a stable and low inflation rate equal to 1.1 on average (sd of 0.83). After July 2021, the average inflation rate equaled 5.6 on average (sd of 1.5).

▸ Long-term Expectations

Do Perceptions also matter for Long-Term Expectations?

Results

Relationship b/w expectations (next 5/10 years) and perceptions (past 12 months)

Dependent variable: **Long-term Inflation Expectations**				
	5-Years		10-Years	
	(1)	(2)	(3)	(4)
Perceptions	0.633***	0.185***	0.656***	0.294***
	(0.0245)	(0.0244)	(0.0235)	(0.0308)
Expectations (short-term)		0.555***		0.463***
		(0.0218)		(0.0281)
Wave dummies	+	+	+	+
Controls	+	+	+	+
N	18406	18194	16774	16567
R^2	0.250	0.339	0.214	0.264

OLS estimates. *** p<0.001, ** p<0.01, * p<0.05. Robust standard errors (Eicker-Huber-White) in parentheses. Perceptions and expectations truncated [30;-5]. Survey waves 1-30 (April - June 2019, April 2020 - June 2022). ▸ Plots

Result II: Inflation perceptions $\tilde{P}_{i,t}$ have positive, large, significant effect on households' long-term inflation expectations. ▸ Survey ▸ More

Which Factors matter for Inflation Perceptions?

Question on Factors influencing Perceptions

(we added a question to the survey wave April 2022)

- Ask household which factors are important when they form inflation perceptions:

At the start of the survey, you estimated the inflation rate over the last twelve months to have been [...].

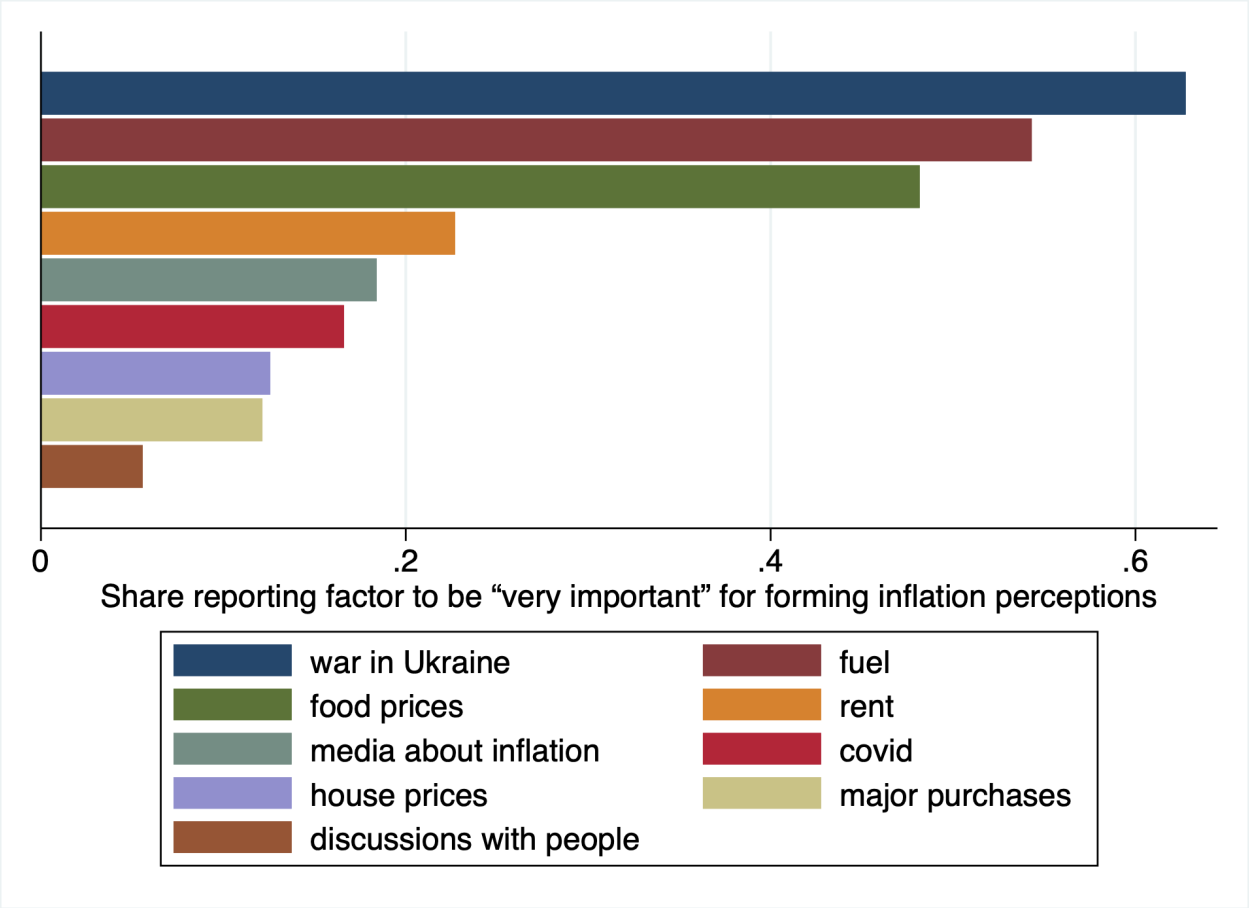
In your opinion, how important are the following factors for your expectations regarding the average inflation rate over the past twelve months?

Answers: 5-point scale, from *very important* to *not at all important*.

▸ Survey Details

Self-reported Factors driving Perceptions

(question added to the survey wave April 2022)



Result III: Prices of frequently bought goods (food and fuel) and uncertainty are the key factors households rely on when forming inflation perceptions over the previous twelve months.

Heterogeneity in the Perception-Expectation Link

Heterogeneity in pass-through strength

Heterogeneity along socio-demographic characteristics

- Sample splits show that strength of the relationship between perceptions and expectations depends on socio-demographics.
- Stronger for women, residents of East Germany, the employed, the low-educated, those younger than 60. ▸ Results with Interaction terms

What is behind the observed heterogeneity?

- Different information sources used (to form perceptions)
- Different levels of individual uncertainty about inflation dynamics

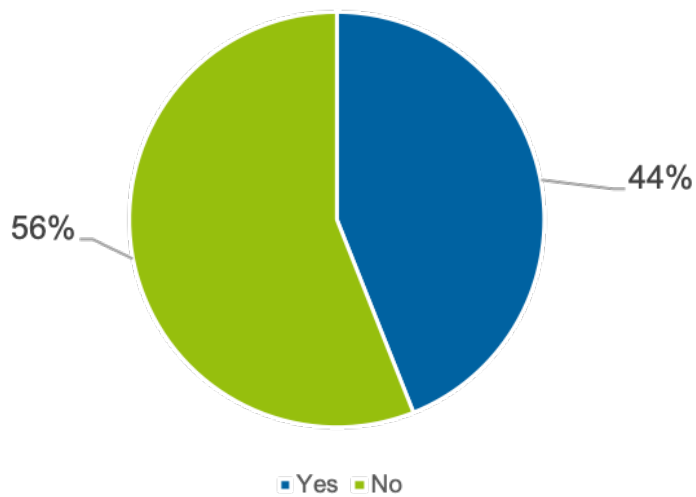
Heterogeneity in the Pass-Through Strength:

The Role of Information for Perceptions

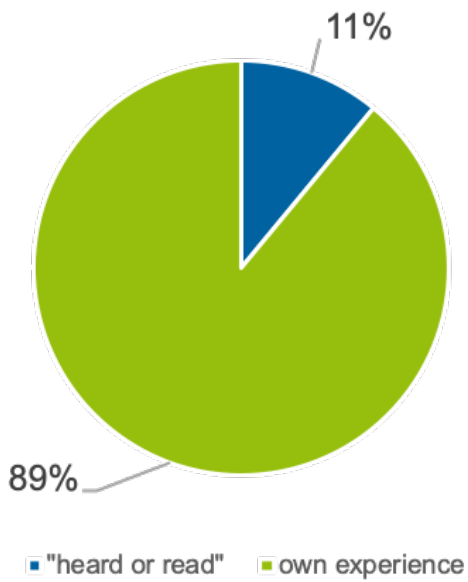
Most people rely on own shopping experience

when forming inflation perceptions (we added these questions to wave July 2021)

Aside from this survey, have you, over the past four weeks, heard or read anything about inflation in Germany?



You said you think prices for essential goods have [...] over the past twelve months. Is that based more on things you have heard or read or on your own experiences when shopping?



Information

A determinant for pass-through strength from inflation perceptions to expectations?

Dependent variable: **Short-term Inflation Expectations**				
	Information Source		Informed	
	Media	Experience	Yes	No
	(1)	(2)	(3)	(4)
Perceptions	0.648***	0.815***	0.818***	0.793***
(last 12 months)	(0.177)	(0.0483)	(0.0711)	(0.0625)
Controls	+	+	+	+
N	283	2454	1543	1198
R^2	0.300	0.463	0.398	0.504

Notes: OLS estimates. *** p<0.001, ** p<0.01, * p<0.05. Robust standard errors (Eicker-Huber-White) in parentheses. Controls include gender, household income, education, current employment status, region, age, age squared. Perceptions and expectations truncated [30;-5]. Survey wave 19 (**July 2021**).

Information matters for Perceptions

Dependent variable:	Perceptions	ST Expectations	
	(1)	(2)	(3)
Inflation info	0.465***	0.149	-0.165
(dummy)	(0.140)	(0.162)	(0.120)
Perceptions based	0.450**	0.506*	0.193
on shopping (dummy)	(0.146)	(0.204)	(0.161)
Perceptions			0.808***
			(0.0471)
Controls	+	+	+
N	2772	2779	2735
R^2	0.053	0.045	0.452

Notes: OLS estimates. *** p<0.001, ** p<0.01, * p<0.05. Controls: gender, income, education, employment status, region, age, age squared. Perceptions and expectations truncated [30;-5]. Survey wave 19 (**July 2021**).

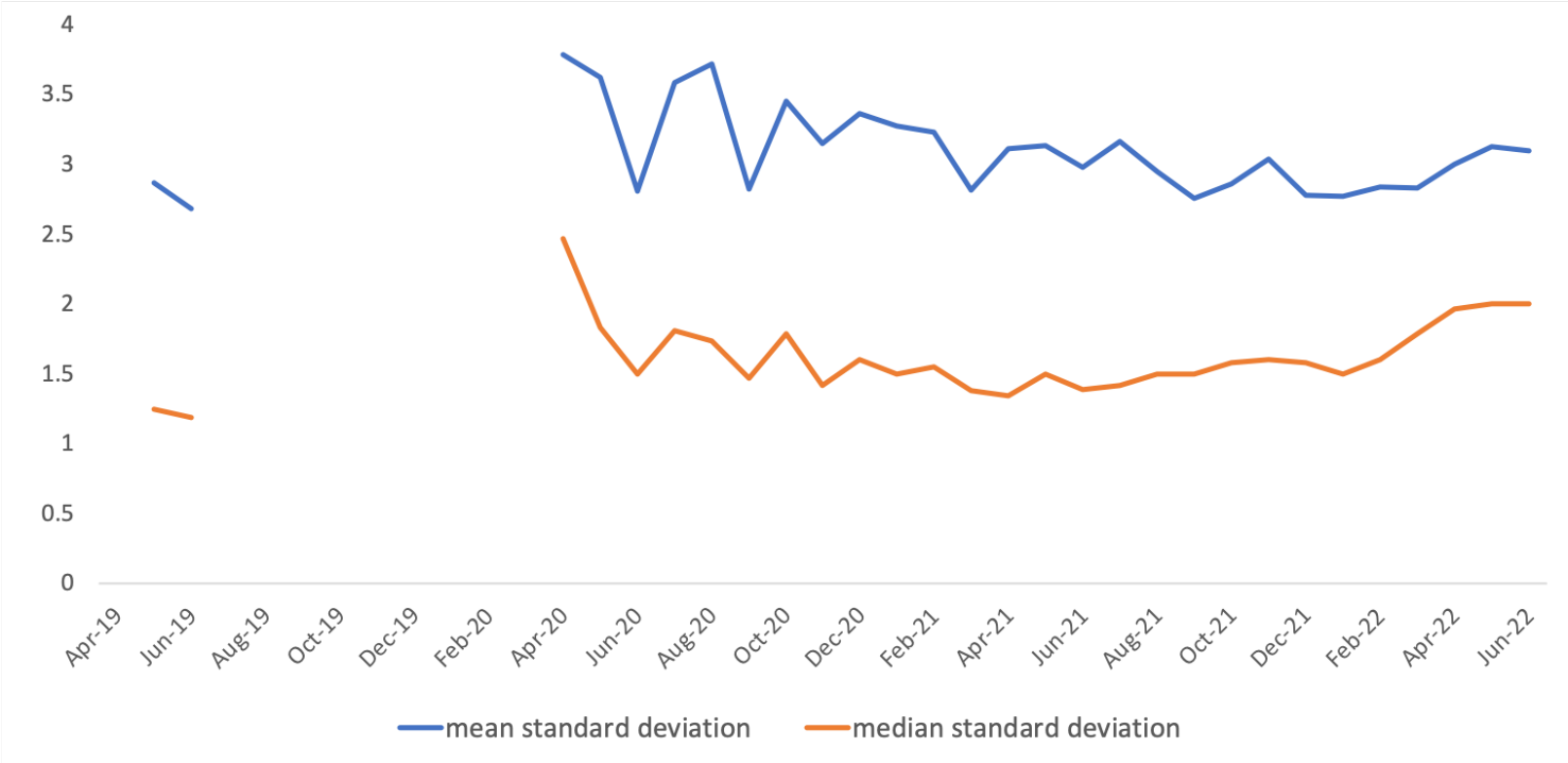
Result IV: Both information variables have direct effect on perceptions $\tilde{P}_{i,t}$. No direct effect on expectations.

Heterogeneity in the Pass-Through Strength: The Role of Individual Inflation Uncertainty

Measuring Uncertainty about Future Inflation

at the individual level

- Extract SD from probabilistic inflation expectation question ▸ Details



SD of subjective probability distribution of probabilistic question. Participants asked to distribute a probability of 100% over 10 categories b/w deflation rate $\geq$ 12% and inflation rate $\geq$ 12%.

Uncertainty varies by socio-demographic groups

- Women, low-income, low-educated, residents of East Germany, the young show higher levels of uncertainty.

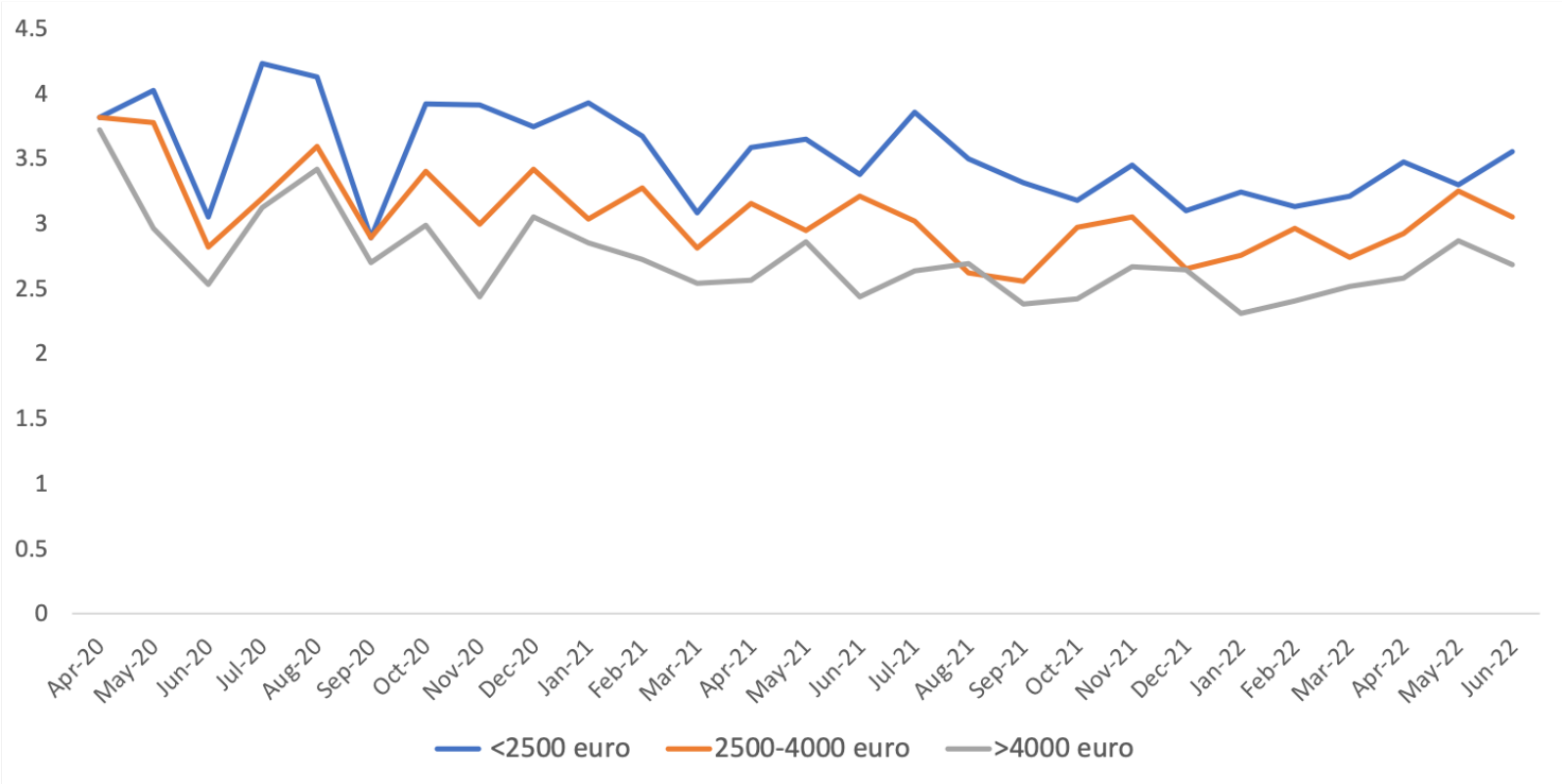


Figure: Inflation Uncertainty by Household Income

Uncertainty matters for the pass-through

Dependent variable: **Short-term Inflation Expectations** (next 12 months)			
	Low uncertainty (bottom quartile)	Medium uncertainty (2 medium quartiles)	High uncertainty (top quartile)
	(1)	(2)	(3)
Perceptions (past 12 months)	0.793***	0.722***	0.850***
	(0.0141)	(0.0213)	(0.0231)
Wave dummies	+	+	+
Controls	+	+	+
N	17124	21498	10945
R^2	0.537	0.505	0.603

Notes: OLS estimates. *** p<0.001, ** p<0.01, * p<0.05. Robust standard errors in parentheses. Controls include gender, income, education, employment status, region, age, age squared. Survey waves 1-30 (April-June 2019, April 2020 - June 2022). ▸ Interaction Term ▸ Long-Term Expectations

Result V: Stronger pass-through for individuals with low and high uncertainty than for middle uncertainty.

Conclusion and Policy Implication

Conclusion

- Perceptions of current inflation strongly linked to inflation expectations (short-term and long-term)
- Inflation expectations are—to a large part—extrapolated from perceptions about past inflation
- Inflation perceptions are driven mainly by shopping experience (food and fuel prices)
- Pass-through strength varies
  - stronger for those with very low and very high uncertainty
  - stronger during low-inflation than during high-inflation periods
- *Next step*: RCT (wave August 2022) to strengthen causality

Policy Implications

- To what degree can communication actually influence expectations, if large part is pure extrapolation from perceptions about past inflation?
- Is it possible to influence expectations by correcting "wrong" perceptions about past inflation rates?

... if not ...

  - Experienced inflation (esp. frequently bought products) crucial
  - (Perceived) inflation away from target (for too long) risks "unanchoring" of (short- and long-term) inflation expectations

Thank you.

Back-up Slides

What drives inflation expectations?

Related Literature

- Knowledge, IQ and financial literacy

  (e.g., Bruine de Bruin et al., 2010; Burke and Manz, 2014; Coibion and Gorodnichenko, 2015; D'Acount et al., 2019; Dovern et al., 2015; Lein and Maag, 2011)

- Information and central bank/media communication

  (e.g., Lamla and Vinogradov, 2019; Fuester et al. 2018; Kryvtsov and Petersen, 2021)

- Historic inflation experiences

  (e.g., Angelico and Di Giacomo 2019; Malmendier et al. 2017; Goldfayn-Frank and Wohlfart 2020)

- Personal shopping experiences

  (e.g., Weber et al., 2022; D'Acunto et al., 2021)

◂ Return

Inflation Expectations and Inflation Perceptions

of households increased substantially over the last months in Germany

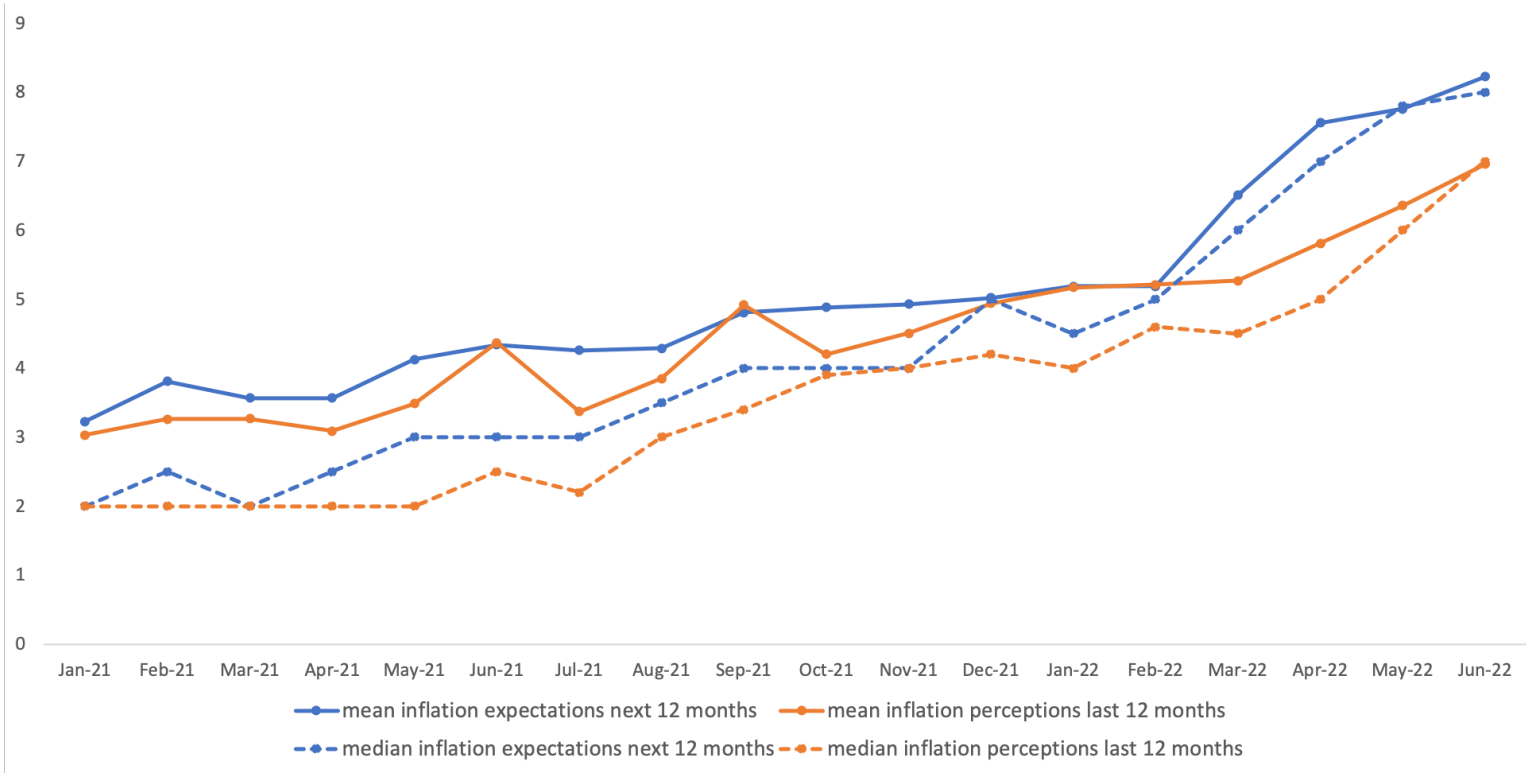


Figure: Dynamics of mean/median inflation expectations and perceptions

Sources: Bundesbank Online Panel Households (BOP-HH). Expectations and perceptions: Weighted means/medians, observations truncated to interval [-5;+30].

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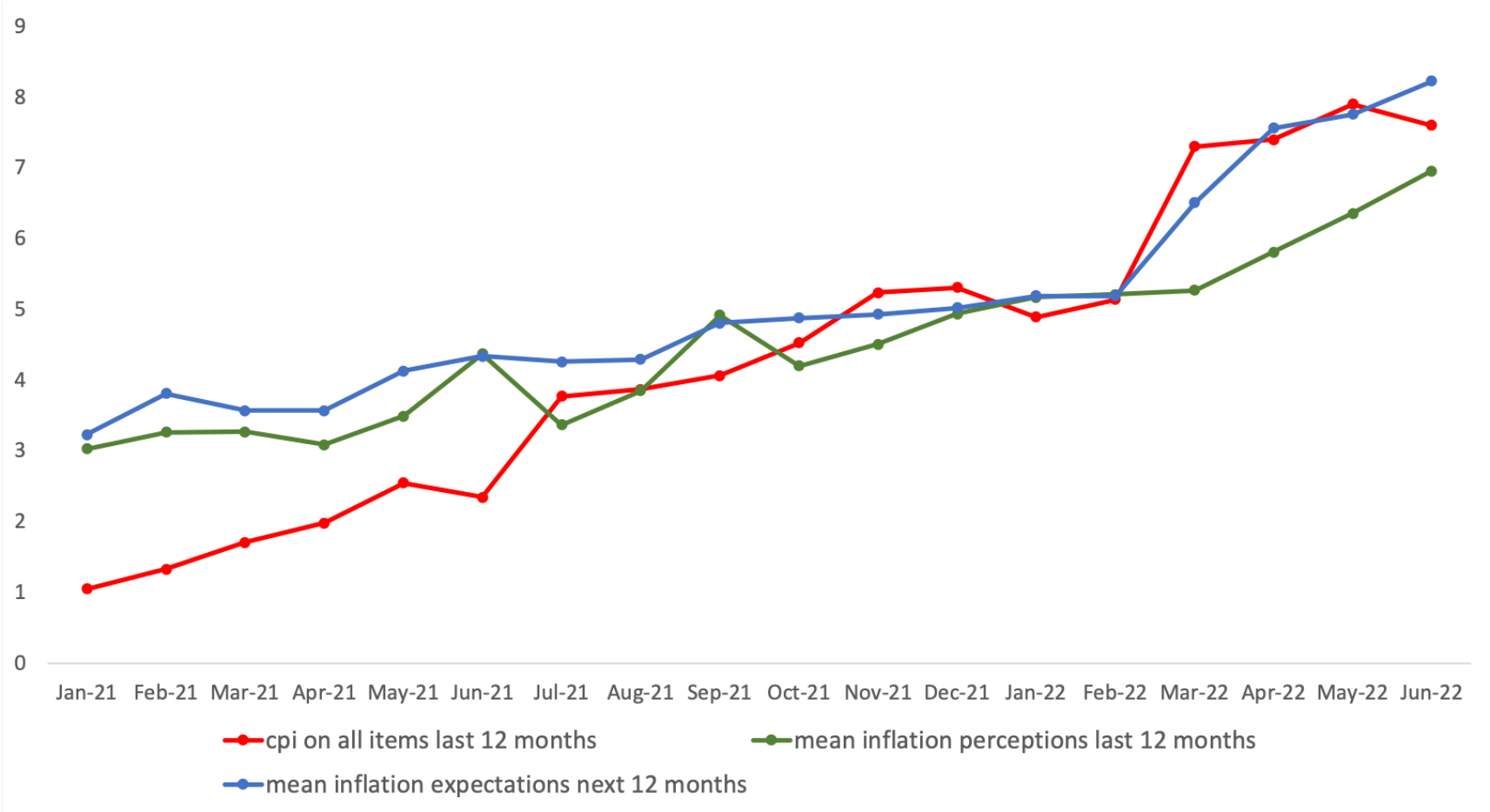
Inflation Expectations, Perceptions, and CPI

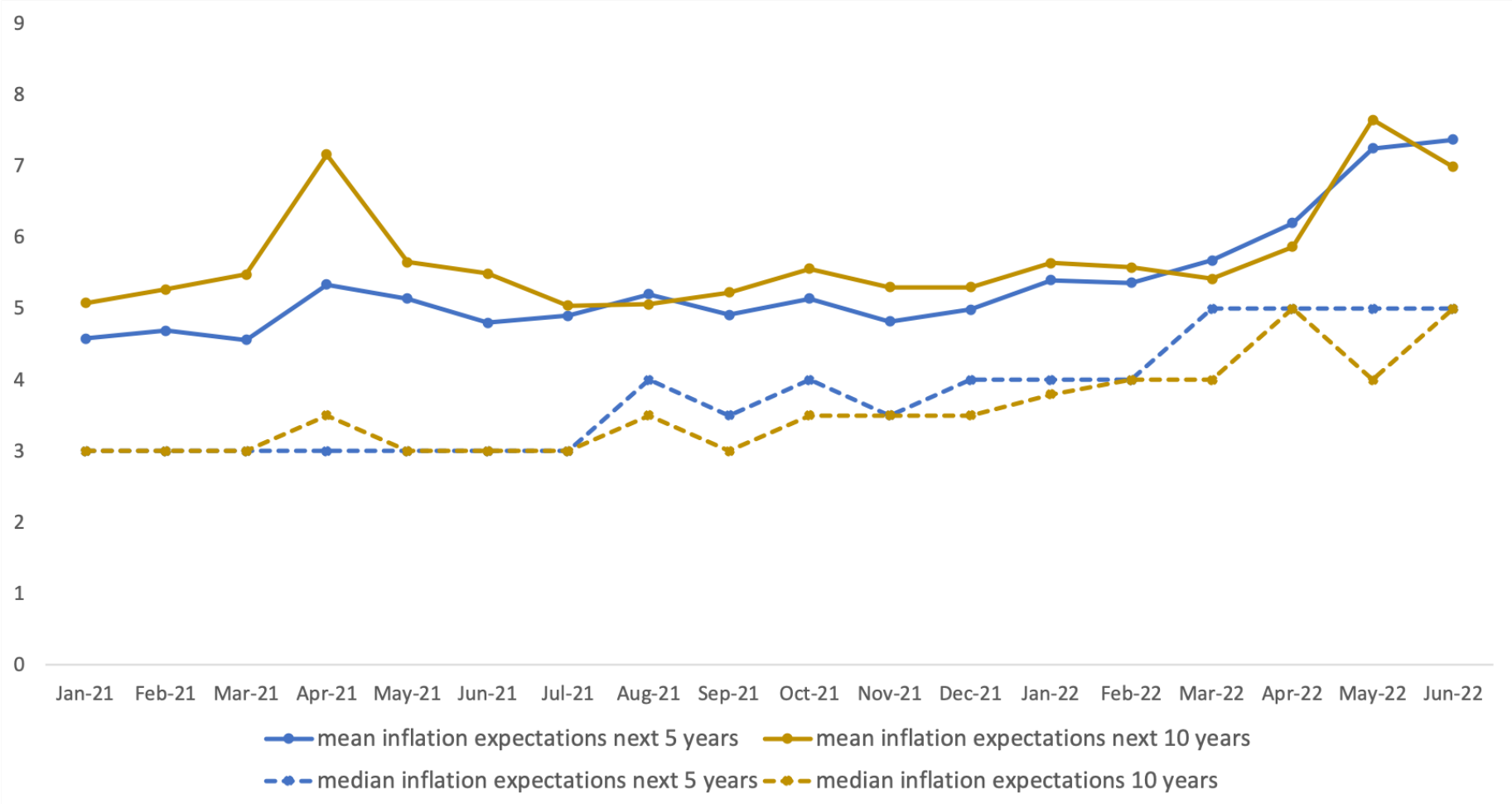


Sources: Bundesbank Online Panel Households (BOP-HH).

Expectations/perceptions: Weighted means, observations truncated to interval [-5;+30].

◂ Return

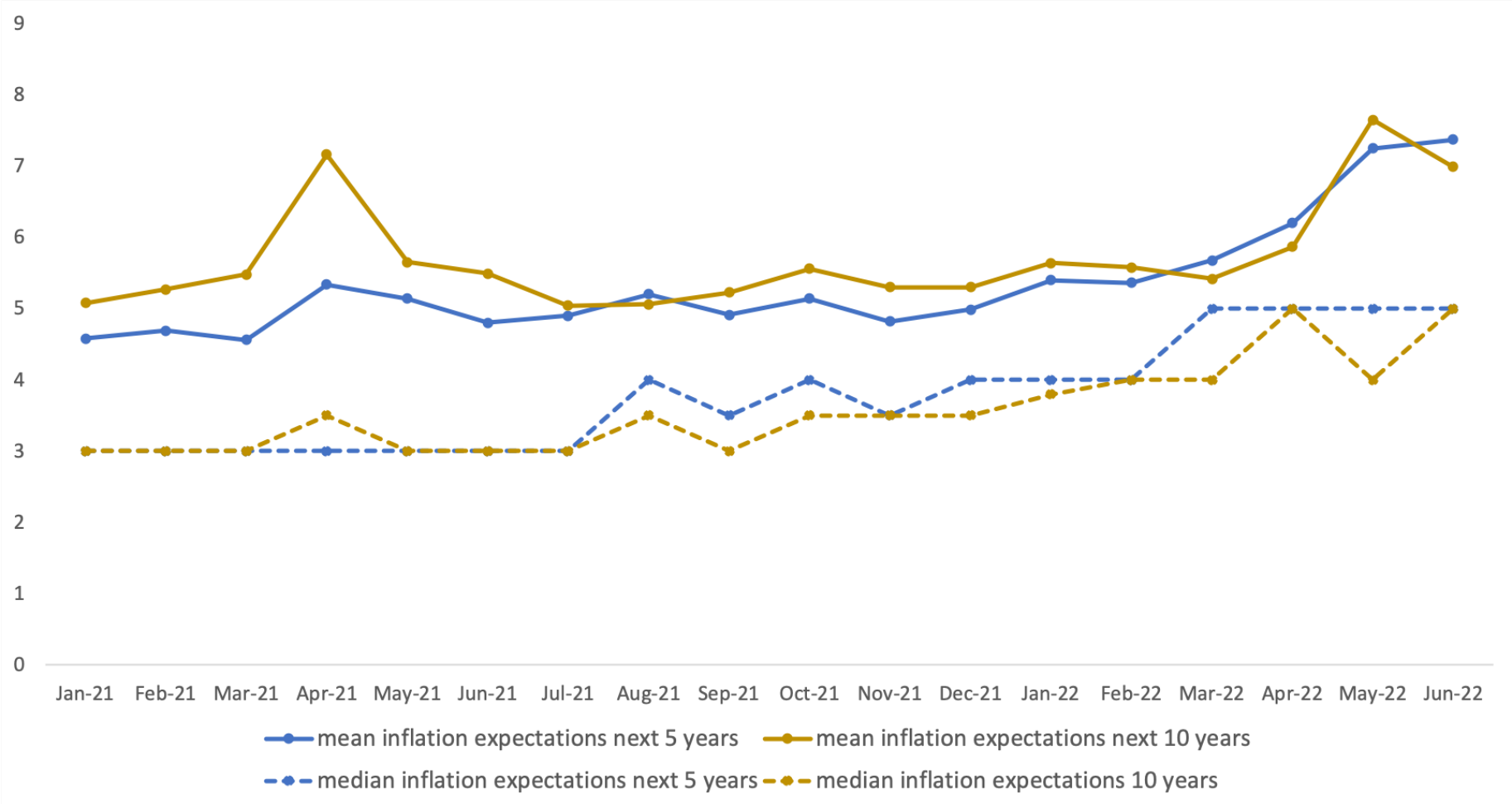
Long-term Inflation Expectations (5/10 years ahead)



Sources: Bundesbank Online Panel Households (BOP-HH). Expectations: Weighted means/medians, observations truncated to interval [-5;+30].

◂ Return

Long-term Inflation Expectations (5/10 years ahead)



Sources: Bundesbank Online Panel Households (BOP-HH). Expectations: Weighted means/medians, observations truncated to interval [-5;+30].

◂ Return

Survey Questions: Details

1. **Inflation perceptions**: *What do you think the rate of inflation or deflation in Germany was over the past twelve months?*

   Note: If you assume there was deflation, please enter a negative value. Values may have one decimal place.

   Please enter a value here: [ ] percent

2. **Qualitative inflation expectations**: *What developments do you expect in the inflation rate over the next twelve months? Will the inflation rate:*

   1 decrease significantly
   2 decrease slightly
   3 stay roughly the same
   4 increase slightly
   5 increase significantly

◂ Return

Survey Questions: Details (cont.)

1. **Quantitative inflation expectations**: *What do you think the rate of inflation/deflation will roughly be over the next twelve months?*

   Note: Inflation is the percentage increase in the general price level. It is mostly measured using the consumer price index. A decrease in the price level is generally described as "deflation".

   Please enter a value in the input field (values may have one decimal place). [] percent

◂ Return

Survey Questions: Details (cont.)

- **Probabilistic inflation expectations**: *In your opinion, how likely is it that the rate of inflation will change as follows over the next twelve months?*

  Note: The aim of this question is to determine how likely you think it is that something specific will happen in the future. You can rate the likelihood on a scale from 0 to 100, with 0 meaning that an event is completely unlikely and 100 meaning that you are absolutely certain it will happen. Use values between the two extremes to moderate the strength of your opinion. Please note that your answers to the categories have to add up to 100.

  1. The rate of deflation (opposite of inflation) will be 12% or higher.
  2. The rate of deflation (opposite of inflation) will be between 8% and less than 12%.
  3. The rate of deflation (opposite of inflation) will be between 4% and less than 8%.
  4. The rate of deflation (opposite of inflation) will be between 2% and less than 4%.
  5. The rate of deflation (opposite of inflation) will be between 0% and less than 2%.
  6. The rate of inflation will be between 0% and less than 2%.
  7. The rate of inflation will be between 2% and less than 4%.
  8. The rate of inflation will be between 4% and less than 8%.
  9. The rate of inflation will be between 8% and less than 12%.
  10. The rate of inflation will be 12% or higher. Return

Probabilistic inflation expectations

- **Probabilistic inflation expectations**: *In your opinion, how likely is it that the rate of inflation will change as follows over the next twelve months?*

  Note: The aim of this question is to determine how likely you think it is that something specific will happen in the future. You can rate the likelihood on a scale from 0 to 100, with 0 meaning that an event is completely unlikely and 100 meaning that you are absolutely certain it will happen. Use values between the two extremes to moderate the strength of your opinion. Please note that your answers to the categories have to add up to 100.

  1. The rate of deflation (opposite of inflation) will be 12% or higher.
  2. The rate of deflation (opposite of inflation) will be between 8% and less than 12%.
  3. The rate of deflation (opposite of inflation) will be between 4% and less than 8%.
  4. The rate of deflation (opposite of inflation) will be between 2% and less than 4%.
  5. The rate of deflation (opposite of inflation) will be between 0% and less than 2%.
  6. The rate of inflation will be between 0% and less than 2%.
  7. The rate of inflation will be between 2% and less than 4%.
  8. The rate of inflation will be between 4% and less than 8%.
  9. The rate of inflation will be between 8% and less than 12%.
  10. The rate of inflation will be 12% or higher. Return

Survey Questions: Long-Term Expectations

BOP-HH survey has two quantitative questions measuring long-term inflation expectations, respondents are randomly split between them:

***Question 1 (inflation over the next five years)**: What value do you think the rate of inflation or deflation will take on average over the next five years? Answer: [...] percent*

***Question 2 (inflation over the next ten years)**: What value do you think the rate of inflation or deflation will take on average over the next ten years? Answer: [...] percent*

◂ Return

Additional Questions on Perception Factors

Factors:

- Development of **food prices** over the past 12 months
- Development of **fuel prices** over the past 12 months
- Development of **house prices** in your region over past 12 months
- Development of **rent** and ancillary costs in your region over the past 12 months
- Development of **prices of major purchases** over past 12 months
- **Media** reports on the inflation rate
- **Discussions** about inflation with colleagues, friends or relatives
- Development of the **COVID-19 pandemic** over past 12 months
- Development of the geopolitical situation over past 2 months, particularly the **war in Ukraine** ◂ Return

Summary Statistics

	N obs	Mean	St. Dev	25th	Median	75th
	(1)	(2)	(3)	(4)	(5)	(6)
Inflation expectations						
1-year	101601	4.52	3.94	2	4	6
5-year	20717	4.65	4.27	2.3	3.5	5
10-year	20478	4.90	4.80	2	3	5
Inflation perceptions						
1-year	54222	3.74	3.53	2	3	4.9
CPI inflation						
food	108540	4.21	3.26	1.44	4.40	5.31
energy	108540	13.28	15.36	0.29	11.65	22.11
excluding food and energy	108540	2.26	1.11	1.42	2.71	3.2
overall	108540	3.52	2.65	1.33	3.77	5.24

Notes: The data span waves 1-30 of the survey (April 2019 - June 2019, April 2020 - June 2022).

◂ Return

Low- versus High-Inflation Regime

- Stronger pass-through during low-inflation enviroment

Dependent variable: **Long-term Inflation Expectations**				
	5 years		**10 years**	
	before July 2021	after July 2021	before July 2021	after July 2021
	(1)	(2)	(3)	(4)
Perceptions (past 12 months)	0.722***	0.594***	0.659***	0.655***
	(0.04)	(0.03)	(0.04)	(0.03)
Wave dummies	+	+	+	+
Controls	+	+	+	+
N	4620	13786	4506	12268
R^2	0.36	0.21	0.26	0.20

Notes: OLS estimates. *** p<0.001, ** p<0.01, * p<0.05. Robust standard errors reported in parentheses. Controls include gender, household income, education, current employment status, region, age, age squared.

◂ Return

Perceptions and Long-term Inflation Expectations

Dependent variable: **Long-term Inflation Expectations (10Y)**							
	OLS	OLS	OLS	OLS	panel FE	panel RE	panel Δ on Δ
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Perceptions last 12 months	0.637***	0.694***	0.602***	0.656***	0.320***	0.613***	0.429**
	(0.0195)	(0.0220)	(0.0206)	(0.0235)	(0.0354)	(0.0192)	(0.142)
Wave dummies	-	+	-	+	-	-	-
Controls	-	-	+	+	-	-	-
N	18599	18599	16774	16774	18599	18599	350
R^2	0.184	0.196	0.203	0.214	0.056	0.06	0.049

Notes: Robust standard errors (Eicker-Huber-White) are in parentheses. *** p<0.001, ** p<0.01, * p<0.05. Socio-demographic controls include gender, household income, education, current employment status, East residence dummy, age, age squared. The dependent variable (long-term inflation expectations) is measured by the quantitative survey question: "And what value do you think the rate of inflation or deflation will take on average over the next ten years?". The independent variable (short-term inflation perceptions) are measured by the quantitative survey question: "What do you think the rate of inflation or deflation in Germany was over the past 12 months?". Perceptions and expectations truncated [30;-5]. Survey waves 1-30 (April 2020 - June 2020, April 2021 - June 2022).

◂ Return

Uncertainty matters for the pass-through

- Stronger for individuals with low and high uncertainty than for middle uncertainty.

Dependent variable: **Long-term Inflation Expectations (next 5 years)**			
	Low uncertainty (bottom quartile)	Medium uncertainty (2 medium quartiles)	High uncertainty (top quartile)
	(1)	(2)	(3)
Perceptions (past 12 months)	0.590***	0.457***	0.739***
	(0.0311)	(0.0377)	(0.0653)
Wave dummies	+	+	+
Controls	+	+	+
N	6921	7738	3747
R^2	0.222	0.161	0.332

Notes: OLS estimates. *** p<0.001, ** p<0.01, * p<0.05. Robust standard errors reported in parentheses. Controls include gender, household income, education, current employment status, region, age, age squared.

Return

Uncertainty matters for the pass-through

- Strongest for individuals with high uncertainty.

Dependent variable: **Long-term Inflation Expectations (next 10 years)**			
	Low uncertainty (bottom quartile)	Medium uncertainty (2 medium quartiles)	High uncertainty (top quartile)
	(1)	(2)	(3)
Perceptions	0.592***	0.590***	0.713***
(past 12 months)	(0.0305)	(0.0477)	(0.0551)
Wave dummies	+	+	+
Controls	+	+	+
N	5952	7356	3466
R^2	0.202	0.134	0.277

Notes: OLS estimates. *** p<0.001, ** p<0.01, * p<0.05. Robust standard errors reported in parentheses. Controls include gender, household income, education, current employment status, region, age, age squared.

Return

Uncertainty matters for the pass-through

Dependent variable: Short-term Inflation Expectations		
	(1)	(2)
perceptions	0.647***	0.614***
last 12 months	((0.0130)	(0.0149)
uncertainty	0.0277***	0.0185***
	(0.00146)	(0.00214)
perceptions × *uncertainty*		0.00165***
		(0.000412)
Wave dummies	+	+
Controls	+	+
N	44305	44305
R^2	0.642	0.643

Notes: OLS estimates. *** p<0.001, ** p<0.01, * p<0.05. Robust standard errors in parentheses. Controls include gender, household income, education, current employment status, region, age, age squared. We also control for the mean inflation expectations derived from the subjective probability distribution from the probabilistic question regarding inflation expectations. The variable uncertainty is measured as the variance of the subjective probability distribution from the probabilistic question regarding inflation expectations. Perceptions and expectations truncated [30;-5]. Survey waves 1-30 (April 2020 - June 2020, April 2021 - June 2022). ◂ Return

Heterogeneity in Perception-Expectation Link

Dependent variable: Short-term Inflation Expectations (next 12 months)					
	(1)	(2)	(3)	(4)	(5)
Perceptions (past 12 months)	0.759*** (0.01)	0.796*** (0.01)	0.837*** (0.01)	0.761*** (0.01)	0.768*** (0.02)
Female (dummy)	0.141** (0.06)				
Perception × female	0.075*** (0.02)				
East (dummy)		0.158** (0.08)			
Perception × East		0.046** (0.02)			
Old (dummy)			0.234*** (0.07)		
Perception × Old			-0.086*** (0.02)		
Employed (dummy)				-0.250*** (0.07)	
Perception × Employed				0.079*** (0.02)	
Low-educated (dummy)					-0.038 (0.06)
Perception × Low-Educated					0.054*** (0.02)
Constant	+	+	+	+	+
Wave dummies	+	+	+	+	+
Controls	+	+	+	+	+
N	49567	49567	49567	49567	49835
R^2	0.56	0.56	0.56	0.56	0.56

Notes: OLS estimates. *** p<0.001, ** p<0.01, * p<0.05. Controls include gender, household income, education, current employment status, East residence dummy, age, age squared. Perceptions and expectations truncated [30;-5]. Waves 1-30 (April - June 2019, April 2020 - June 2022). Return