Inflated Concerns? Exposure to Past Inflationary Episodes and Preferences for Price Stability

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Roadmap

- Motivation, Summary of Results, and Lit Review
- Data and Empirical Strategy
- Empirical Results
- Robustness and Extensions
- Conclusion

Recent Global Spike in Inflation

- Prior to 2021, high inflation was seen in many countries as a thing of the past.
- Then, rapid increase in prices began in mid-2021.
 - COVID-19 pandemic
 - Supply-chain restrictions
- Plus, Russias war in Ukraine triggered commodity prices jumps.

Question

- Key questions in our paper:
 - How does exposure to high inflation episodes shape individual preferences for price stability?
 - Do the costs of being exposed to high inflation in the past affect individuals perception of inflation and make them worry more?
 - Does exposure to high inflation generate information, which is used to recur to when exposed to inflationary shocks?
- Important for a few reasons:
 - First time in several decades where there has been a sharp increase in inflation.
 - Furthermore, this comes on the heels of calls for refocusing central banks objectives—e.g., towards inequality, reduce independence—and of years of political impasses that have hampered the ability to conduct countercyclical fiscal policy in many countries.
 - Role of past inflation in IT policy reaction functions (Jacome, Magud, and Pienknagura, 2024)

Approach

- We exploit systematic waves (over time) of cross-country individual-level surveys to gauge preferences for price stability. Specifically:
 - In 42 countries during 1981-2022, for each cohort (year of birth) in a country, we construct a measure of exposure to past inflationary episodes since early 1920s and relate it to individuals concerns about inflation
 - Concerns rank importance of inflation (explained below)
 - We exploit within-country, between age group/cohort variation in exposure to inflationary episodes, and the identification strategy hinges on pre-exposure cross-cohort parallel trend.

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Findings I

- Individuals who have lived through past inflationary episodes show higher concerns over inflation.
 - One SD increase in exposure to high inflation (approx. 6 additional years) is comparable to an increase in the share of individuals expressing strong concerns over inflation from 50th to the 75th percentile.
 - Results are robust to the use of different high inflation thresholds and to alternative measures of exposure to high inflation (e.g., persistence, large inflationary jumps).
- Non-linearities: Current inflation and GDP growth volatility (macro instability) amplify the impact of past exposure on concerns over inflation
- Higher bureaucratic apparatus quality (better institutions), dampens the impact of past inflation exposure on concerns over inflation; signals trust in the central bank.

Findings II

- Timing of exposure matters: high inflation episodes during latter part of working age have a significant impact on concerns over inflation, but not during early working age years and retirement (lifecycle-type behavior).
- Evidence of "recency bias" (Malmendier and Nagel, 2016): impact of exposure to
 past high inflation is larger when we discount individuals' experiences occurring the
 more remote past.
- No effect of past inflation experience on growth concerns (unique inflation-inflation concerns link)

Related Literature

- Past inflation experiences shaping inflation expectations & responses to inflationary shocks
 - Malmendier and Nagel (2016) and Binder and Makridis (2020); Malmendier and Nagel (2011); Braggion, F., Von Meyerinck, F., Schaub, N., & Weber, M. (2023), Giuliano and Spilimbergo (2024)
 - Households in high inflation countries more informed about inflation (Cavallo, Cruces and Perez-Truglio, 2017)
 - Individual level characteristics affect views about economic prospects (Das and others, 2020; DAcunto, Malmendier, and Weber, 2022; Allinger and Rumbler, 2023; Conrad, C., Enders, Z., & Glas, A., 2022)
- Lived experiences self-perceptions shaping inflation expectations
 - Salle, Gorodnichenko, and Coibion (2023); Allinger and Rumbler (2023)
- Problems of inflation expectations surveys review
 - Weber and others (2021)
- Methodologically
 - Acemoglu et al. (forthcoming)

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Data I

- Survey Data: We use individual level data from the seven waves of the World Value Surveys.
 - The data provides nationally representative surveys from 113 countries from 1981 to 2022.
 - In addition to providing individuals demographic and socioeconomic characteristics (age, gender, marital status, level of education, occupation status, position in the income distribution), the surveys assess respondents attitudes on a range of issues, including towards price stability, economic growth and economic stability.
 - In particular, the survey asks individuals whether fighting rising prices is the most (or second most) important issue among four options. While other options are not economic in nature, determining the salience of price stability vs other objectives is informative in and of itself.
 - Two questions: Details
 - If you had to choose, which one of the things on this card would you say is most important: (a) maintaining order in the nation, (b) giving people more say in important government decision, (c) fighting rising prices, or (d) protecting freedom of speech?
 - 2 And which would be the next most important?



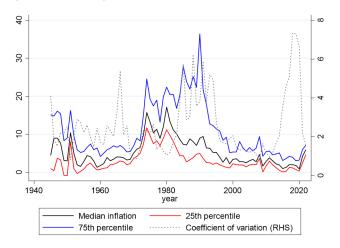
Data II

- Inflation Data: To construct our measure of exposure to high inflation episodes, we need historical data on inflation. Since the surveys begin in the 1980s, we need an inflation data from at least the 1930s (as some individuals in the initial survey years may have been born in the early 1900s, entering the labor force around the 1920s/30s).
- With that goal, we rely on several data sources:
 - Data for advanced economies comes from the Jorda-Schularick-Taylor Macrohistory
 Database. The database provides inflation information dating back to the 19th century.
 - Data for Latin American countries comes from Jacome and Pienknagura (forthcoming). The authors construct inflation series for 17 Latin American countries dating back to the 1920s.
 - Data for other countries is constructed by combining data from the World Banks World Development Indicators (WDI) with historical records from IFS. In each case, we are able to construct data series ranging from either 1937 or the creation of the individual country to the present.
- In sum, given data availability, we construct historical inflation series for 42 advanced and emerging markets.



Evolution of Inflation

Figure: Cross-Country Distribution of Inflation over Time—1945-2021



Exposure to High Inflation Episodes

- Crucial to our analysis is the construction of our high inflation dummy and our measure to exposure. To do so, we proceed in steps.
- First, for every country we construct several measures of high inflation: we define high inflation according to absolute thresholds.
 - Baseline results use absolute inflation thresholds of 25 and 50 percent, roughly the 90th and 95th percentile of our samples inflation distribution. Also, a country-specific metric of high inflation: larger or equal to a country's 75th percentile of the country's inflation distribution.
- Second, for each high-inflation threshold, $\overline{\pi}_c$, we construct a measure of exposure for each individual in country c, of age a, in survey year s, defined as follows:

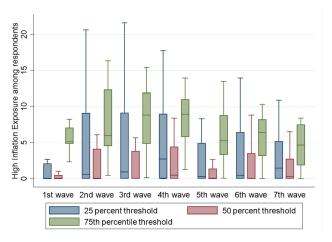
$$HIE_{c,s,a} = \sum_{t=s-a+k}^{s} I(\pi_{c,t} > \overline{\pi}_c)$$
 (1)

 where k (15) is the age at which we start counting exposure, and I is an indicator function.

Inflated Concerns?

Distribution of Exposure

Figure: Distribution of High Inflation Exposure Among Respondents—By Survey Wave



Empirical Specification I

 To gauge the impact of past exposure to high inflation on an individuals preferences over price stability (exploiting age group-country-year-level variation in the history of inflation), we estimate:

$$y_{i,c,s,a} = \beta * HIE_{c,s,a} + \theta' * X_{i,c,s,a} + \epsilon_{i,c,s,a}$$
 (2)

- $y_{i,c,s,a} = inflation \ concerns_{i,c,s,a}$ is a dummy variable taking value one if individual i, in country c, in survey year s, of age a, considers fighting rising prices as the most important issue among those listed in the question.
 - We also define mild inflation concern when the individual considers fighting rising prices the most or second most important issue.
- $X_{i,c,s,a}$ is a vector of individual controls that includes: country-year of interview, age, and year of birth fixed effects, gender dummies, occupational status dummies, income dummies, educational dummies, and marital status dummies. In some robustness exercises we also include dummies identifying the size of the respondent's city.

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Empirical Specification II

• We also estimate a model where we explore differences in the impact of exposure to high inflation depending on **when** this exposure takes place.

$$y_{i,c,s,a} = \beta_y * HIE_{c,s,a}^{15-40} + \beta_m * HIE_{c,s,a}^{40-65} + \beta_o * HIE_{c,s,a}^{65+} + \theta' * X_{i,c,s,a} + \epsilon_{i,c,s,a}$$
(3)

- In each case, we count the number of years in each age range that individual i has experienced high inflation.
- And whether the elasticity of the individuals preference over price stability varies
 with country-specific variables: current level of inflation, macroeconomic volatility
 (time-varying coefficient of variation of GDP per capita growth), and quality of a
 countrys bureaucracy (institutional quality), as captured in z_{c,t}.

$$y_{i,c,s,a} = \beta * HIE_{c,s,a} + \gamma * HIE_{c,s,a} * z_{c,t} + \theta' * X_{i,c,s,a} + \epsilon_{i,c,s,a}$$
(4)



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Higher exposure to past high inflation episodes increases the likelihood of expressing a preference for fighting rising prices

	St	rong Inflation Co	oncerns	Mo	derate Inflation (Concerns
Inflation Threshold:	25 percent (1)	50 percent (2)	75 th percentile (3)	25 percent (4)	50 percent (5)	75 th percentile (6)
High Inflation Exposure (HIE)	0.0013***	0.0016**	0.0013**	0.0011**	0.0010*	0.0014**
,	(0.0005)	(0.0006)	(0.0006)	(0.0004)	(0.0006)	(0.0005)
Low income dummy	0.0516***	0.0516***	0.0515***	0.0199***	0.0199***	0.0198***
· ·	(0.0047)	(0.0047)	(0.0047)	(0.0055)	(0.0055)	(0.0055)
Middle income dummy	0.0188***	0.0188***	0.0188***	0.0182***	0.0182***	0.0182***
•	(0.0035)	(0.0035)	(0.0035)	(0.0036)	(0.0036)	(0.0036)
Low education dummy	0.0827***	0.0828***	0.0826***	0.0345***	0.0346***	0.0344***
	(0.0062)	(0.0063)	(0.0062)	(0.0068)	(0.0068)	(0.0068)
Intermediate education dummy	0.0404***	0.0404***	0.0403***	0.0258***	0.0257***	0.0257***
	(0.0042)	(0.0042)	(0.0042)	(0.0040)	(0.0040)	(0.0040)
Single dummy	-0.0140***	-0.0139***	-0.0139***	-0.0105***	-0.0105***	-0.0104***
	(0.0033)	(0.0033)	(0.0033)	(0.0031)	(0.0031)	(0.0031)
Male dummy	-0.0263***	-0.0263***	-0.0263***	-0.0047	-0.0047	-0.0047
	(0.0026)	(0.0026)	(0.0026)	(0.0030)	(0.0030)	(0.0030)
Retired dummy	-0.0032	-0.0035	-0.0027	0.0001	-0.0001	0.0008
	(0.0050)	(0.0050)	(0.0050)	(0.0047)	(0.0047)	(0.0047)
Out of labor force dummy	0.0183***	0.0183***	0.0183***	0.0002	0.0002	0.0002
	(0.0044)	(0.0044)	(0.0044)	(0.0037)	(0.0037)	(0.0037)
Unemployed dummy	0.0126**	0.0126**	0.0129***	0.0020	0.0020	0.0023
	(0.0049)	(0.0049)	(0.0049)	(0.0048)	(0.0048)	(0.0048)
Constant	0.1712***	0.1729***	0.1666***	0.2326***	0.2349***	0.2264***
	(0.0043)	(0.0041)	(0.0065)	(0.0050)	(0.0049)	(0.0065)
Observations	198,674	198,674	198,674	198,674	198,674	198,674
R-squared	0.0892	0.0891	0.0891	0.0353	0.0353	0.0354

Note: Standard errors clustered at the country-year level in parenthesis. Regressions include individuals age 25 and up. All specifications include year, country-year and cohort fixed effects. The 75^{th} percentile threshold is calculated based on the country-specific inflation distribution.

^{***} p<0.01, ** p<0.05, * p<0.1

Higher exposure to past high inflation episodes increases the likelihood of expressing a preference for fighting rising prices

	St	rong Inflation Co	oncerns	Moderate Inflation Concerns			
Inflation Threshold:	25 percent	50 percent	75 th percentile	25 percent	50 percent	75 th percentile	
	(1)	(2)	(3)	(4)	(5)	(6)	
High Inflation Exposure (HIE)	0.0013***	0.0016**	0.0013**	0.0011**	0.0010*	0.0014**	
	(0.0005)	(0.0006)	(0.0006)	(0.0004)	(0.0006)	(0.0005)	

 One standard deviation increase in exposure to high inflationary episodes is comparable to an increase in the share of individuals expressing strong concerns over inflation from the median value found in our 154 country-year surveys to the 75th percentile

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The longer the high inflation spell, the stronger inflation concerns

	St	rong Inflation Co	oncerns	Mo	derate Inflation (Concerns
Inflation Threshold:	25 percent (1)	50 percent (2)	75 th percentile (3)	25 percent (4)	50 percent (5)	75 th percentile (6)
Consecutive years of HIE	0.0012**	0.0015**	0.0018***	0.0008	0.0005	0.0007
	(0.0005)	(0.0007)	(0.0006)	(0.0005)	(0.0007)	(0.0006)
Low income dummy	0.0516***	0.0516***	0.0514***	0.0199***	0.0199***	0.0199***
-	(0.0047)	(0.0047)	(0.0047)	(0.0055)	(0.0055)	(0.0055)
Middle income dummy	0.0188***	0.0188***	0.0188***	0.0182***	0.0182***	0.0182***
-	(0.0035)	(0.0035)	(0.0035)	(0.0036)	(0.0036)	(0.0036)
Low education dummy	0.0828***	0.0829***	0.0828***	0.0346***	0.0347***	0.0347***
-	(0.0063)	(0.0063)	(0.0062)	(0.0068)	(0.0068)	(0.0068)
Intermediate education dummy	0.0403***	0.0403***	0.0405***	0.0257***	0.0256***	0.0257***
,	(0.0042)	(0.0042)	(0.0042)	(0.0040)	(0.0040)	(0.0040)
Single dummy	-0.0139***	-0.0139***	-0.0135***	-0.0104***	-0.0104***	-0.0103***
,	(0.0033)	(0.0033)	(0.0033)	(0.0031)	(0.0031)	(0.0031)
Male dummy	-0.0263***	-0.0263***	-0.0263***	-0.0047	-0.0048	-0.0048
-	(0.0026)	(0.0026)	(0.0026)	(0.0030)	(0.0030)	(0.0030)
Retired dummy	-0.0036	-0.0034	-0.0035	-0.0002	-0.0001	-0.0001
-	(0.0050)	(0.0050)	(0.0050)	(0.0047)	(0.0047)	(0.0047)
Out of labor force dummy	0.0182***	0.0183***	0.0182***	0.0002	0.0002	0.0001
-	(0.0044)	(0.0044)	(0.0044)	(0.0037)	(0.0037)	(0.0037)
Unemployed dummy	0.0127**	0.0126**	0.0130***	0.0020	0.0020	0.0021
	(0.0049)	(0.0049)	(0.0048)	(0.0048)	(0.0048)	(0.0048)
Constant	0.1729***	0.1736***	0.1670***	0.2350***	0.2363***	0.2334***
	(0.0041)	(0.0041)	(0.0057)	(0.0049)	(0.0049)	(0.0061)
Observations	198,674	198,674	198,674	198,674	198,674	198,674
R-squared	0.0891	0.0891	0.0892	0.0353	0.0353	0.0353

Note: Standard errors clustered at the country-year level in parenthesis. Regressions include individuals age 25 and up. All specifications include year, country-year and cohort fixed effects. The 75th percentile threshold is calculated based on the country-specific inflation distribution.

*** p<0.01, ** p<0.05, * p<0.1

More volatile inflation impact on strong inflation concerns

	St	rong Inflation Co	oncerns	Mod	derate Inflation (Concerns
Inflation Threshold:	25 percent (1)	50 percent (2)	75 th percentile (3)	25 percent (4)	50 percent (5)	75 th percentile (6)
	(1)	(-)	(5)	(.)	(5)	(0)
High Inflation Volatility Exposure (HIVE)	0.0017***	0.0019***	0.0015***	0.0009*	0.0005	0.0004
- , , , ,	(0.0005)	(0.0007)	(0.0005)	(0.0005)	(0.0007)	(0.0005)
Low income dummy	0.0517***	0.0517***	0.0515***	0.0200***	0.0200***	0.0199***
ř	(0.0047)	(0.0047)	(0.0047)	(0.0055)	(0.0055)	(0.0055)
Middle income dummy	0.0188***	0.0188***	0.0187***	0.0182***	0.0182***	0.0182***
,	(0.0035)	(0.0035)	(0.0035)	(0.0036)	(0.0036)	(0.0036)
Low education dummy	0.0827***	0.0828***	0.0827***	0.0346***	0.0347***	0.0346***
,	(0.0062)	(0.0062)	(0.0062)	(0.0068)	(0.0068)	(0.0068)
Intermediate education dummy	0.0404***	0.0403***	0.0401***	0.0257***	0.0256***	0.0255***
	(0.0042)	(0.0042)	(0.0042)	(0.0040)	(0.0040)	(0.0040)
Single dummy	-0.0141***	-0.0139***	-0.0139***	-0.0105***	-0.0104***	-0.0104***
,	(0.0033)	(0.0033)	(0.0033)	(0.0031)	(0.0031)	(0.0031)
Male dummy	-0.0263***	-0.0263***	-0.0263***	-0.0047	-0.0048	-0.0048
*	(0.0026)	(0.0026)	(0.0026)	(0.0030)	(0.0030)	(0.0030)
Retired dummy	-0.0026	-0.0026	-0.0022	0.0004	0.0001	0.0003
*	(0.0049)	(0.0049)	(0.0050)	(0.0047)	(0.0047)	(0.0046)
Out of labor force dummy	0.0184***	0.0183***	0.0183***	0.0002	0.0002	0.0002
*	(0.0044)	(0.0044)	(0.0044)	(0.0037)	(0.0037)	(0.0037)
Unemployed dummy	0.0125**	0.0124**	0.0125**	0.0019	0.0019	0.0019
, , , ,	(0.0049)	(0.0049)	(0.0049)	(0.0048)	(0.0048)	(0.0048)
Constant	0.1709***	0.1728***	0.1677***	0.2343***	0.2364***	0.2349***
	(0.0042)	(0.0040)	(0.0052)	(0.0050)	(0.0049)	(0.0057)
Observations	198,674	198,674	198,674	198,674	198,674	198,674
R-squared	0.0892	0.0891	0.0891	0.0353	0.0353	0.0353

Note: Standard errors clustered at the country-year level in parenthesis. Regressions include individuals age 25 and up. All specifications include year, country-year and cohort fixed effects. The 75^{th} percentile threshold is calculated based on the country-specific inflation volatility distribution.

^{***} p<0.01, ** p<0.05, * p<0.1

High and accelerating inflation has stronger effects compared to high and stable inflation

			75 th percentile			arth
Inflation Threshold:	25 percent	50 percent		25 percent	50 percent	75 th percentile
	(1)	(2)	(3)	(4)	(5)	(6)
HIE, large year-on-year change	0.0034***	0.0041***	0.0035**			
THE, large year-on-year change	(0.0012)	(0.0015)	(0.0015)			
ME and the second	(0.0012)	(0.0015)	(0.0015)	0.0018***	0.0021**	0.0014*
HIE, small year-on-year change				(0.0007)	(0.0021	(0.0008)
1	0.0516***	0.0516***	0.0515***	0.0516***	0.0516***	0.0515***
Low income dummy						
	(0.0047)	(0.0047)	(0.0047)	(0.0047)	(0.0047)	(0.0047)
Middle income dummy	0.0188***	0.0188***	0.0188***	0.0188***	0.0188***	0.0188***
	(0.0035)	(0.0035)	(0.0035)	(0.0035)	(0.0035)	(0.0035)
Low education dummy	0.0826***	0.0828***	0.0827***	0.0827***	0.0828***	0.0827***
	(0.0062)	(0.0062)	(0.0062)	(0.0062)	(0.0063)	(0.0062)
Intermediate education dummy	0.0404***	0.0404***	0.0403***	0.0404***	0.0403***	0.0402***
	(0.0042)	(0.0042)	(0.0042)	(0.0042)	(0.0042)	(0.0042)
Single dummy	-0.0141***	-0.0140***	-0.0140***	-0.0139***	-0.0138***	-0.0138***
	(0.0033)	(0.0033)	(0.0033)	(0.0033)	(0.0033)	(0.0033)
Male dummy	-0.0263***	-0.0263***	-0.0263***	-0.0263***	-0.0263***	-0.0263***
· ·	(0.0026)	(0.0026)	(0.0026)	(0.0026)	(0.0026)	(0.0026)
Retired dummy	-0.0029	-0.0034	-0.0023	-0.0035	-0.0035	-0.0030
*	(0.0049)	(0.0050)	(0.0049)	(0.0050)	(0.0050)	(0.0050)
Out of labor force dummy	0.0184***	0.0183***	0.0183***	0.0182***	0.0183***	0.0183***
,	(0.0044)	(0.0044)	(0.0044)	(0.0044)	(0.0044)	(0.0044)
Unemployed dummy	0.0126**	0.0126**	0.0128***	0.0126**	0.0126**	0.0129***
,	(0.0049)	(0.0049)	(0.0049)	(0.0049)	(0.0049)	(0.0049)
Constant	0.1711***	0.1727***	0.1669***	0.1720***	0.1736***	0.1696***
Constant	(0.0043)	(0.0041)	(0.0061)	(0.0042)	(0.0041)	(0.0062)
	(0.5045)	(0.0041)	(0.0001)	(0.5042)	(0.0041)	(0.0002)
Observations	198,674	198,674	198,674	198,674	198,674	198,674
R-squared	0.0892	0.0891	0.0891	0.0891	0.0891	0.0891

Note: Large changes are defined as year-on-year changes in inflation that exceed the standard deviation of the last five years prior to the change. Standard errors clustered at the country-year level in parenthesis. Regressions include individuals age 25 and up. All specifications include year, country-year and cohort fixed effects. The 75^{th} percentile threshold is calculated based on the country-specific inflation volatility distribution.

*** p<0.01, ** p<0.05, * p<0.1

"Recency" bias: more recent experiences play a more prominent role

• We modify equation (1) by allowing for discounting of inflation exposure"

$$HIE_{c,s,a}^{disc} = \sum_{t=s-a+k}^{s} \beta^{s-t} I(\pi_{c,t} > \overline{\pi}_c)$$
 (5)

ullet where for simplicity we assume eta=0.95

	St	rong Inflation Co	oncerns	Moderate Inflation Concerns		
Inflation Threshold:	25 percent (1)	50 percent (2)	75 th percentile (3)	25 percent (4)	50 percent (5)	75 th percentile (6)
High Inflation Exposure (HIE), discounted	0.0039** (0.0016)	0.0040* (0.0021)	0.0049*** (0.0019)	0.0035** (0.0016)	0.0024 (0.0019)	0.0033* (0.0019)

Timing matters: latter exposure has a stronger impact, consistent with life-cycle hypothesis

	St	rong Inflation C	oncerns	Mo	Moderate Inflation Concerns			
Inflation Threshold:	25 percent (1)	50 percent (2)	75 th percentile (3)	25 percent (4)	50 percent (5)	75 th percentile (6)		
HIE, 15-40 years old	0.0007 (0.0005)	0.0009 (0.0007)	0.0006 (0.0005)	0.0008 (0.0005)	0.0006 (0.0006)	0.0011**		
HIE, 40-65 years old	0.0022***	0.0026***	0.0031***	0.0015***	0.0016**	(0.0005) 0.0021***		
HIE, 65+ years old	(0.0006) 0.0025	(0.0008) 0.0048	(0.0008) 0.0030	(0.0005) 0.0043*	(0.0008) 0.0066**	(0.0007) 0.0000		
	(0.0034)	(0.0050)	(0.0031)	(0.0024)	(0.0028)	(0.0024)		

Non-linearities I: high inflation increases awareness

:	Strong Inflation Cond (1)	erns Mod	ns Moderate Inflation Concerns (2)				
inflation	0.0016***		-0.0000				
	(0.0005)		(0.0004)				
Constant	0.2041***		0.2645***				
	(0.0066)		(0.0065)				
Observations	239,971		239,971				
R-squared	0.0611		0.0212				
	Str	ong Inflation C	oncerns		Moderate Inflation Concerns		
Inflation Threshold	l: 25 percent	50 percent	75 th percentile	25 pe	rcent	50 percent	75 th percentile
	(1)	(2)	(3)	(4	1)	(5)	(6)
· · · ·	0.0012***	0.0015##	0.0010##	0.00	1188	0.0006	0.0012##
HIE	0.0013***	0.0015**	0.0012**	0.00		0.0006	0.0013**
	(0.0005)	(0.0007)	(0.0006)	(0.0		(0.0006)	(0.0006)
HIE*inflation	0.0001	0.0007	0.0007	0.00		0.0038**	0.0018
	(0.0002)	(0.0016)	(0.0017)	(0.0	002)	(0.0018)	(0.0020)

Non-linearities II: stronger institutions, lower concerns (policy credibility?)

	St	rong Inflation Co		Mo	derate Inflation (
Inflation Threshold:	25 percent (1)	50 percent (2)	75 th percentile (3)	25 percent (4)	50 percent (5)	75 th percentile (6)
HIE	0.0037***	0.0049***	0.0072***	0.0004	-0.0002	0.0020
	(0.0012)	(0.0018)	(0.0015)	(0.0016)	(0.0023)	(0.0014)
HIE*Bureaucratic Quality	-0.0010**	-0.0014*	-0.0025***	0.0003	0.0005	-0.0003
The Bureaucratic quality	(0.0005)	(8000.0)	(0.0006)	(0.0006)	(0.0010)	(0.0006)
Low income dummy	0.0526***	0.0526***	0.0528***	0.0206***	0.0207***	0.0206***
zow meonie dammy	(0.0050)	(0.0050)	(0.0049)	(0.0058)	(0.0058)	(0.0058)
Middle income dummy	0.0186***	0.0186***	0.0186***	0.0189***	0.0189***	0.0189***
made meome dummy	(0.0037)	(0.0037)	(0.0037)	(0.0038)	(0.0038)	(0.0038)
Low education dummy	0.0851***	0.0852***	0.0848***	0.0334***	0.0335***	0.0333***
zow caacation aanning	(0.0064)	(0.0064)	(0.0064)	(0.0072)	(0.0072)	(0.0072)
Intermediate education dummy	0.0422***	0.0422***	0.0429***	0.0250***	0.0249***	0.0250***
meemedate cadeation daminy	(0.0042)	(0.0042)	(0.0042)	(0.0041)	(0.0041)	(0.0041)
Single dummy	-0.0131***	-0.0130***	-0.0131***	-0.0118***	-0.0117***	-0.0118***
Single duninity	(0.0034)	(0.0034)	(0.0034)	(0.0032)	(0.0032)	(0.0032)
Male dummy	-0.0275***	-0.0275***	-0.0277***	-0.0040	-0.0040	-0.0040
male daminy	(0.0027)	(0.0027)	(0.0027)	(0.0031)	(0.0031)	(0.0031)
Retired dummy	-0.0038	-0.0040	-0.0026	0.0023	0.0021	0.0029
,	(0.0052)	(0.0053)	(0.0050)	(0.0049)	(0.0048)	(0.0049)
Out of labor force dummy	0.0198***	0.0198***	0.0197***	-0.0001	-0.0001	-0.0001
,	(0.0046)	(0.0046)	(0.0046)	(0.0040)	(0.0040)	(0.0040)
Unemployed dummy	0.0147***	0.0147***	0.0152***	0.0027	0.0027	0.0031
,,	(0.0053)	(0.0053)	(0.0052)	(0.0051)	(0.0051)	(0.0051)
Constant	0.1759***	0.1776***	0.1762***	0.2344***	0.2366***	0.2293***
	(0.0044)	(0.0042)	(0.0065)	(0.0054)	(0.0052)	(0.0069)
Observations	183,579	183,579	183,579	183,579	183,579	183,579
R-squared	0.0861	0.0861	0.0864	0.0315	0.0315	0.0315

Note: Standard errors clustered at the country-year level in parenthesis. Regressions include individuals age 25 and up. All specifications include year, country-year and cohort fixed effects. The 75th percentile threshold is calculated based on the country-specific inflation distribution.

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^{***} p<0.01, ** p<0.05, * p<0.1

Non-linearities III: lower macro instability, lower inflation concerns

	Str	ong Inflation Cor	ncerns	Mo	derate Inflation Co	oncerns
Inflation Threshold:	25 percent	50 percent	75 th percentile	25 percent	50 percent	75 th percentile
	(1)	(2)	(3)	(4)	(5)	(6)
HIE	0.0013***	0.0015**	0.0012**	0.0011**	0.0009	0.0013**
	(0.0005)	(0.0007)	(0.0006)	(0.0004)	(0.0006)	(0.0006)
HIE*CV of GDP per capita growth	0.000006***	0.000009**	0.000005**	0.000008***	0.000015***	0.000007**
	(0.000002)	(0.000004)	(0.000002)	(0.000002)	(0.000005)	(0.000003)
Low income dummy	0.0516***	0.0516***	0.0514***	0.0200***	0.0200***	0.0199***
•	(0.0047)	(0.0047)	(0.0047)	(0.0056)	(0.0056)	(0.0056)
Middle income dummy	0.0187***	0.0187***	0.0187***	0.0185***	0.0185***	0.0185***
,	(0.0035)	(0.0035)	(0.0035)	(0.0036)	(0.0036)	(0.0036)
Low education dummy	0.0826***	0.0828***	0.0826***	0.0345***	0.0347***	0.0344***
, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	(0.0062)	(0.0063)	(0.0062)	(0.0068)	(0.0068)	(0.0068)
Intermediate education dummy	0.0404***	0.0404***	0.0403***	0.0258***	0.0257***	0.0257***
ř	(0.0042)	(0.0042)	(0.0042)	(0.0040)	(0.0040)	(0.0040)
Single dummy	-0.0137***	-0.0136***	-0.0136***	-0.0109***	-0.0108***	-0.0108***
,	(0.0033)	(0.0033)	(0.0033)	(0.0031)	(0.0031)	(0.0031)
Male dummy	-0.0261***	-0.0261***	-0.0261***	-0.0046	-0.0046	-0.0046
•	(0.0026)	(0.0026)	(0.0027)	(0.0030)	(0.0030)	(0.0030)
Retired dummy	-0.0031	-0.0033	-0.0025	0.0002	0.0001	0.0010
•	(0.0050)	(0.0050)	(0.0050)	(0.0047)	(0.0047)	(0.0047)
Out of labor force dummy	0.0183***	0.0183***	0.0183***	-0.0001	-0.0001	-0.0001
	(0.0044)	(0.0044)	(0.0044)	(0.0037)	(0.0037)	(0.0037)
Unemployed dummy	0.0129***	0.0129***	0.0132***	0.0018	0.0018	0.0022
	(0.0049)	(0.0049)	(0.0049)	(0.0048)	(0.0048)	(0.0048)
Constant	0.1704***	0.1720***	0.1659***	0.2319***	0.2340***	0.2258***
	(0.0043)	(0.0041)	(0.0065)	(0.0050)	(0.0049)	(0.0065)
Observations	197,757	197,757	197,757	197,757	197,757	197,757
R-squared	0.0896	0.0895	0.0895	0.0355	0.0355	0.0355

Note: Standard errors clustered at the country-year level in parenthesis. Regressions include individuals age 25 and up. All specifications include year, country-year and cohort fixed effects. The 75^{th} percentile threshold is calculated based on the country-specific inflation distribution.

^{***} p<0.01, ** p<0.05, * p<0.1

Roadmap

- Motivation, Summary of Results, and Lit Review
- Data and Empirical Strategy
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- Robustness and Extensions
- Conclusion

Robustness: violation of parallel trends—placebo exposure (Acemoglu et al)

	St	rong Inflation Co	oncerns	Mo	derate Inflation (Concerns
Inflation Threshold:	25 percent (1)	50 percent (2)	75 th percentile (3)	25 percent (4)	50 percent (5)	75 th percentil (6)
High Inflation Exposure (HIE) placebo	-0.0005	-0.0005	-0.0005	0.0004	0.0008	0.0006
	(0.0005)	(0.0009)	(0.0005)	(0.0006)	(0.0009)	(0.0006)
Low income dummy	0.0522***	0.0522***	0.0522***	0.0205***	0.0205***	0.0205***
*	(0.0047)	(0.0047)	(0.0047)	(0.0055)	(0.0055)	(0.0055)
Middle income dummy	0.0190***	0.0190***	0.0190***	0.0183***	0.0183***	0.0183***
*	(0.0035)	(0.0035)	(0.0035)	(0.0036)	(0.0036)	(0.0036)
Low education dummy	0.0822***	0.0822***	0.0822***	0.0343***	0.0343***	0.0343***
*	(0.0062)	(0.0062)	(0.0062)	(0.0069)	(0.0069)	(0.0069)
Intermediate education dummy	0.0400***	0.0400***	0.0399***	0.0254***	0.0254***	0.0255***
,	(0.0042)	(0.0042)	(0.0042)	(0.0040)	(0.0040)	(0.0040)
Single dummy	-0.0135***	-0.0135***	-0.0135***	-0.0102***	-0.0102***	-0.0102***
,	(0.0033)	(0.0033)	(0.0033)	(0.0031)	(0.0031)	(0.0031)
Male dummy	-0.0264***	-0.0264***	-0.0264***	-0.0050	-0.0050	-0.0050
•	(0.0026)	(0.0026)	(0.0026)	(0.0030)	(0.0030)	(0.0030)
Retired dummy	-0.0026	-0.0027	-0.0023	0.0002	0.0001	-0.0003
ř	(0.0050)	(0.0050)	(0.0051)	(0.0048)	(0.0048)	(0.0047)
Out of labor force dummy	0.0185***	0.0185***	0.0185***	0.0002	0.0002	0.0002
*	(0.0044)	(0.0044)	(0.0044)	(0.0038)	(0.0038)	(0.0038)
Unemployed dummy	0.0126**	0.0126**	0.0126***	0.0019	0.0019	0.0019
	(0.0048)	(0.0048)	(0.0048)	(0.0048)	(0.0048)	(0.0048)
Constant	0.1774***	0.1769***	0.1782***	0.2365***	0.2367***	0.2352***
	(0.0041)	(0.0040)	(0.0041)	(0.0049)	(0.0049)	(0.0051)
Observations	198,674	198,674	198,674	198,674	198,674	198,674
R-squared	0.0884	0.0884	0.0884	0.0346	0.0346	0.0346

Note: Standard errors clustered at the country-year level in parenthesis. Regressions include individuals age 25 and up. All specifications include year, country-year and cohort fixed effects. The 75^{th} percentile threshold is calculated based on the country-specific inflation distribution.

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^{***} p<0.01, ** p<0.05, * p<0.1

Robustness II: Alternative samples and controls

- Our results are robust to alternative samples and to controlling for other variables:
 - We exclude the five countries with the highest inflation rates in our sample—Argentina, Bolivia, Germany, Nicaragua and Peru
 - Include all individuals ages 15 and up
 - Control for the size of the town the individual lives in Town Size

Extension: Inflation exposure impacts inflation concerns only

	S [.]	trong Growth Co	ncerns	Mo	derate Growth C	oncerns
Inflation Threshold:	25 percent (1)	50 percent (2)	75 th percentile (3)	25 percent (4)	50 percent (5)	75 th percentil (6)
High Inflation Exposure (HIE)	-0.0013**	-0.0009	-0.0008	0.0005	0.0005	-0.0000
- ' '	(0.0005)	(0.0007)	(0.0007)	(0.0003)	(0.0005)	(0.0004)
Low income dummy	-0.0347***	-0.0347***	-0.0346***	0.0150***	0.0150***	0.0150***
,	(0.0073)	(0.0073)	(0.0073)	(0.0038)	(0.0038)	(0.0038)
Middle income dummy	-0.0040	-0.0040	-0.0041	0.0156***	0.0156***	0.0156***
*	(0.0053)	(0.0053)	(0.0053)	(0.0031)	(0.0031)	(0.0031)
Low education dummy	-0.0578***	-0.0581***	-0.0579***	-0.0111* [*] *	-0.0111***	-0.0110**
*	(0.0095)	(0.0095)	(0.0095)	(0.0047)	(0.0047)	(0.0047)
Intermediate education dummy	-0.0061	-0.0059	-0.0059	-0.0063* [*] *	-0.0063**	-0.0064**
,	(0.0059)	(0.0059)	(0.0059)	(0.0031)	(0.0031)	(0.0031)
Single dummy	-0.0236***	-0.0237***	-0.0238***	0.0040	0.0041	0.0041
,	(0.0041)	(0.0041)	(0.0041)	(0.0033)	(0.0033)	(0.0033)
Male dummy	0.0336***	0.0337***	0.0337***	-0.0092***	-0.0092***	-0.0092***
*	(0.0035)	(0.0035)	(0.0035)	(0.0023)	(0.0023)	(0.0023)
Retired dummy	0.0006	0.0008	0.0003	0.0014	0.0013	0.0013
ř	(0.0055)	(0.0055)	(0.0054)	(0.0037)	(0.0037)	(0.0038)
Out of labor force dummy	-0.0109***	-0.0109***	-0.0109***	-0.0066**	-0.0066**	-0.0066**
,	(0.0041)	(0.0041)	(0.0041)	(0.0029)	(0.0029)	(0.0030)
Unemployed dummy	-0.0198***	-0.0198***	-0.0200***	0.0049	0.0049	0.0049
	(0.0046)	(0.0046)	(0.0046)	(0.0039)	(0.0039)	(0.0038)
Constant	0.5085***	0.5055***	0.5096***	0.1893***	0.1901***	0.1916***
	(0.0064)	(0.0062)	(0.0077)	(0.0040)	(0.0039)	(0.0047)
Observations	198,674	198,674	198,674	198,674	198,674	198,674
R-squared	0.1582	0.1582	0.1582	0.0514	0.0514	0.0514

Note: Standard errors clustered at the country-year level in parenthesis. Regressions include individuals age 25 and up. All specifications include year, country-year and cohort fixed effects. The 75th percentile threshold is calculated based on the country-specific inflation distribution.

^{***} p<0.01, ** p<0.05, * p<0.1

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Conclusions

- History matters: the more you live through inflation, the more you worry about it.
- Inflation concerns increase if:
 - Higher current inflation exposure
 - Higher macroeconomic instability
 - Lower quality institutions (implicitly suggesting confidence in past CB's actions)
- Timing of exposure matters (lifecycle-type behavior)
- Evidence of "recency bias"

Appendix

Details about questions

- To assess whether preferences over price stability capture preferences over economic outcomes more generally, we exploit additional questions in the survey. We assess the correlation between past inflation exposure and preferences for high economic growth.
- For high growth, the questions are as follow:
 - Would you please say which one of these you, yourself, consider the most important, (a) A high level of economic growth, (b) making sure this country has a strong defense forces, (c) seeing that people have more say about how things are done at their jobs and communities, or (d) trying to make our cities and countryside more beautiful?
 - 2 And which would be the next most important?
- For stable economy, the questions are as follow:
 - Would you please say which one of these you, yourself, consider the most important, (a) A stable economy, (b) progress toward a less impersonal and more humane society, (c) progress toward society in which ideas count more than money, or (d) the fight against crime?
 - 2 And which would be the next most important?



Appendix Sample of countries

Table: Sample of Countries in the Analysis

Advanced Economies	Emerging Markets			
Australia, Canada, Finland, France, Germany, Israel, Italy, Japan, Republic of Korea, The Netherlands, Norway, New Zealand, Spain, Sweden, Switzerland, United Kingdom, United States	Argentina, Bolivia, Brazil, Chile, Colombia, Dominican Republic, Ecuador, Egypt, El Salvador, Guatemala, India, Indonesia, Iraq, Islamic Republic of Iran, Lebanon, Mexico, Malaysia, Nicaragua, Peru, Philippines, South Africa, Thailand, Turkiye Uruguay, Rep. Bol. of Venezuela			



Appendix

Excluding top 5 countries

•	St	rong Inflation Co		Mo	derate Inflation (Concerns
Inflation Threshold:	25 percent (1)	50 percent (2)	75 th percentile (3)	25 percent (4)	50 percent (5)	75 th percentile (6)
High Inflation Exposure (HIE)	0.0015***	0.0020**	0.0016**	0.0010**	0.0007	0.0015**
riigii iiiiatioii Exposure (riiE)	(0.0005)	(0.0008)	(0.0006)	(0.0005)	(0.0008)	(0.0006)
Low income dummy	0.0500***	0.0500***	0.0498***	0.0193***	0.0193***	0.0192***
Low income duminy	(0.0050)	(0.0050)	(0.0050)	(0.0060)	(0.0060)	(0.0060)
Middle income dummy	0.0187***	0.0187***	0.0188***	0.0188***	0.0188***	0.0188***
wilddie income dummy	(0.0037)	(0.0037)	(0.0037)	(0.0038)	(0.0038)	(0.0038)
Lauraduantian duman.	0.0785***	0.0786***	0.0037)	0.0287***	0.0289***	0.0286***
Low education dummy						
	(0.0064)	(0.0064)	(0.0064)	(0.0073)	(0.0073)	(0.0073)
Intermediate education dummy	0.0398***	0.0398***	0.0398***	0.0226***	0.0225***	0.0226***
	(0.0046)	(0.0046)	(0.0046)	(0.0042)	(0.0042)	(0.0042)
Single dummy	-0.0145***	-0.0144***	-0.0143***	-0.0095***	-0.0094***	-0.0093***
	(0.0036)	(0.0036)	(0.0036)	(0.0033)	(0.0033)	(0.0033)
Male dummy	-0.0249***	-0.0249***	-0.0249***	-0.0048	-0.0049	-0.0048
	(0.0028)	(0.0028)	(0.0028)	(0.0032)	(0.0032)	(0.0032)
Retired dummy	-0.0036	-0.0038	-0.0029	-0.0034	-0.0035	-0.0028
	(0.0053)	(0.0053)	(0.0053)	(0.0048)	(0.0048)	(0.0048)
Out of labor force dummy	0.0205***	0.0205***	0.0205***	-0.0006	-0.0006	-0.0006
-	(0.0046)	(0.0046)	(0.0046)	(0.0040)	(0.0040)	(0.0040)
Unemployed dummy	0.0121**	0.0121**	0.0126**	-0.0003	-0.0004	0.0001
	(0.0052)	(0.0052)	(0.0052)	(0.0049)	(0.0049)	(0.0049)
Constant	0.1754***	0.1770***	0.1678***	0.2381***	0.2405***	0.2303***
	(0.0044)	(0.0043)	(0.0072)	(0.0052)	(0.0050)	(0.0072)
Observations	178,181	178,181	178,181	178,181	178,181	178,181
R-squared	0.0911	0.0910	0.0910	0.0369	0.0369	0.0369

Note: Excludes Argentina, Bolivia, Germany, Nicaragua and Peru, which recorded the highest inflation rates in our sample. Standard errors clustered at the country-year level in parenthesis. Regressions include individuals age 25 and up. All specifications include year, country-year and cohort fixed effects. The 75th percentile threshold is calculated based on the country-specific inflation distribution.

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^{***} p<0.01, ** p<0.05, * p<0.1

Appendix

15+ Sample and town size controls

	Strong Inflation Concern							
Inflation Threshold:	25 percent		50 percent		75 th percentile			
	(1)	(2)	(3)	(4)	(5)	(6)		
High Inflation Exposure (HIE)	0.0009**	0.0013***	0.0009*	0.0016**	0.0012**	0.0013**		
	(0.0004)	(0.0005)	(0.0005)	(0.0006)	(0.0005)	(0.0006)		
Low income dummy	0.0481***	0.0511***	0.0482***	0.0512***	0.0481***	0.0510***		
	(0.0041)	(0.0048)	(0.0041)	(0.0048)	(0.0041)	(0.0047)		
Middle income dummy	0.0188***	0.0187***	0.0188***	0.0186***	0.0189***	0.0187***		
	(0.0031)	(0.0035)	(0.0031)	(0.0035)	(0.0031)	(0.0035)		
Low education dummy	0.0813***	0.0815***	0.0815***	0.0817***	0.0811***	0.0815***		
	(0.0058)	(0.0061)	(0.0058)	(0.0061)	(0.0058)	(0.0061)		
Intermediate education dummy	0.0391***	0.0398***	0.0390***	0.0398***	0.0390***	0.0397***		
	(0.0038)	(0.0042)	(0.0038)	(0.0042)	(0.0038)	(0.0041)		
Single dummy	-0.0160***	-0.0136***	-0.0159***	-0.0135***	-0.0161***	-0.0135***		
	(0.0031)	(0.0033)	(0.0031)	(0.0033)	(0.0031)	(0.0033)		
Male dummy	-0.0254***	-0.0263***	-0.0254***	-0.0263***	-0.0253***	-0.0264***		
	(0.0024)	(0.0026)	(0.0024)	(0.0026)	(0.0024)	(0.0026)		
Retired dummy	-0.0058	-0.0033	-0.0060	-0.0035	-0.0050	-0.0027		
*	(0.0049)	(0.0050)	(0.0049)	(0.0050)	(0.0049)	(0.0050)		
Out of labor force dummy	0.0139***	0.0183***	0.0140***	0.0183***	0.0140***	0.0183***		
ř	(0.0036)	(0.0044)	(0.0036)	(0.0044)	(0.0036)	(0.0044)		
Unemployed dummy	0.0136***	0.0127**	0.0135***	0.0127**	0.0140***	0.0131***		
, . , ,	(0.0044)	(0.0049)	(0.0043)	(0.0049)	(0.0044)	(0.0049)		
Large town dummy	(-0.0106	(,	-0.0105	(, , ,	-0.0105		
8,		(0.0065)		(0.0065)		(0.0065)		
Mid-sized town dummy		-0.0059		-0.0059		-0.0060		
,		(0.0075)		(0.0075)		(0.0075)		
Constant	0.1733***	0.1750***	0.1746***	0.1767***	0.1681***	0.1703***		
	(0.0038)	(0.0046)	(0.0037)	(0.0045)	(0.0052)	(0.0068)		
Sample	15+	25+	15+	25+	15+	25+		
Observations	239,924	198,674	239,924	198,674	239,924	198,674		
R-squared	0.0871	0.0892	0.0870	0.0892	0.0871	0.0892		

Note: Standard errors clustered at the country-year level in parenthesis. Year, country-year and cohort fixed effects included. The 75^{th} percentile threshold is calculated based on the country-specific inflation distribution.

