Highlights

Partisan Expectations and COVID-Era Inflation

Carola Conces Binder, Rupal Kamdar, Jane M. Ryngaert

- During COVID, Republicans' inflation expectations rose, Democrats' stayed anchored.
- Republican expectations were more sensitive to CPI releases and energy costs.
- Regional variation in political affiliation shows expectations affected inflation.
- Inflation would have risen by more if all expectations had become unanchored.

We thank Laurence Ball, Yuriy Gorodnichenko, Felix Aidala, Olivier Armantier, Giorgio Topa, Wilbert van der Klaauw, and conference participants at Inflation in the COVID Era and Beyond for excellent comments.

Partisan Expectations and COVID-Era Inflation

Carola Conces Binder^a, Rupal Kamdar^b, Jane M. Ryngaert^c

^aSchool of Civic Leadership, University of Texas, 302 W. 24th Street, Austin, TX, 78712, USA
 ^bDepartment of Economics Indiana University, Bloomington, 100 South Woodlawn Avenue, Bloomington, IN, 47405, USA
 ^cDepartment of Economics, University of Notre Dame, 3060 Jenkins Nanovic Hall, Notre Dame, IN, 46556, USA

Abstract

We document that, during the COVID-19 era, the inflation expectations of Democrats remained strongly anchored, while those of Republicans did not. Republicans' expectations not only rose well above the inflation target, but also became more sensitive to a variety of shocks, including CPI releases and energy prices. We then exploit geographic variation in political affiliation at the MSA level to show that the partial de-anchoring of expectations had implications for realized inflation. Counterfactual exercises imply that, had all expectations become as unanchored as those of Republicans, average inflation would have been two to four percentage points higher for much of the pandemic period, ceteris paribus.

Keywords: inflation expectations, anchoring, macroeconomic data releases, regional Phillips curve

1. Introduction

Rising inflation in the COVID-19 pandemic led to concern about whether inflation expectations would become unanchored. It is generally agreed that expectations were poorly-anchored during the Great Inflation of the 1970s, and that the improvement in anchoring since the Volcker disinflation has been of great value for monetary policymaking (Binder and Kamdar, 2022). But there is less agreement about the extent to which expectations unanchored with the post-pandemic inflation, and, more broadly, about the role of inflation expectations in this high-inflation episode.

In this paper, we document that expectations anchoring in the COVID-19 era was a partisan phenomenon. That is, consumer expectations remained anchored for Democrats, while becoming unanchored for Republicans. In the Michigan Survey of Consumers, Republicans' inflation expectations rose more than those of Democrats', not only for short-run inflation, but also for long-run inflation. In fact, Democrats' expectations remained quite stable throughout the entire period from 2020 through 2023, while nearly the entire rise and subsequent fall in inflation expectations can be attributed to Republicans and Independents. The departure of Republicans' longer-run expectations from the Federal Reserve's two percent inflation target is not the only indication that these expectations—unlike Democrats'—became more responsive to inflation itself and to gas and energy prices.

Using higher frequency data and an event study approach, we also show that Republicans and Democrats differentially adjusted their expectations in response to macroeconomic announcements in the COVID period. Specifically, using an event-study approach around CPI releases, we show that Republicans significantly and differentially increased their short- and long-run inflation expectations relative to Democrats in the middle of 2021. This coincides precisely with rapid rise of inflation from below 2% to above 5%. These results suggest that Republican expectations were more affected by these announcements.

We thank Laurence Ball, Yuriy Gorodnichenko, Felix Aidala, Olivier Armantier, Giorgio Topa, Wilbert van der Klaauw, and conference participants at Inflation in the COVID Era and Beyond for excellent comments.

¹Mishkin (2007, p. 329), for example, suggests that better-anchored inflation expectations "implies some very good news: potentially inflationary shocks, like a sharp rise in energy prices, are less likely to spill over into expected and actual core inflation. Therefore, the Fed does not have to respond as aggressively as would be necessary if inflation expectations were unanchored, as they were during the Great Inflation era." Also see Janet Yellen's remarks at Brookings on October 3, 2019, https://www.brookings.edu/articles/former-fed-chair-janet-yellen-on-why-the-answer-to-the-inflation-puzzle-matters/.

These partisan differences provide an opportunity to study the role of inflation expectations in inflation dynamics. Our evidence suggests that households of different partisan leanings interpreted macroeconomic conditions and information about the inflationary impact of shocks heterogeneously. Regional variation in political composition means that different parts of the country were differentially exposed to these differences in interpretations. Thus, even though the United States is a monetary union with a common monetary policy regime, expectations of long-run inflation vary across regions. We exploit this variation to estimate an expectations-augmented Phillips curve at the MSA level. As a proxy for inflation expectations, we include a shift-share variable in which the shifts are the average party-specific inflation expectations and the share is MSA-level voter shares from the 2016 election.

The resulting estimates point to a non-trivial role of inflation expectations in inflation dynamics. We show this through a series of counterfactual exercises. For example, our estimates imply that, had all expectations become as unanchored as those of Republicans, average MSA-level inflation would have been two to four percentage points higher than realized from 2021 into 2024, *ceteris paribus*. Had expectations remained anchored, inflation would have increased by less and returned to pre-pandemic levels. We conclude that — consistent with economic theory and the fears of central bankers — the partial de-anchoring of expectations mattered in the determination of inflation itself.

This paper is related to, but distinct from, previous literature that has used sub-national data to estimate Phillips curves (Kumar and Orrenius, 2016; Fitzgerald et al., Forthcoming; Cerrato and Gitti, 2024). This work focuses on identifying the *slope* of the Phillips curve (the coefficient on unemployment). Hazell et al. (2022), for example, use state-level data to estimate the slope of the Phillips curve. Their regressions, like ours, include region and time fixed effects. But they assume that long-run inflation expectations are the same across states since all face the same monetary policy regime. They do not include long-run inflation expectations in the regression, assuming they will be absorbed in the time fixed effects. We argue that long-run inflation expectations are not fully absorbed by either time or region fixed effects because of the combination of regional variation in partisanship and time-varying partisan gaps in expectations.

Our work also contributes to, and brings together, several additional strands of the literature. The first is a large literature on households' inflation expectations formation. High and time-varying disagreement is an important feature of consumer inflation expectations survey data (Branch, 2004; Mankiw and Reis, 2007; Binder and Ryngaert, forthcoming). Heterogeneity across demographic groups may arise because of differences in information processing and financial literacy and different personal experiences (Pfajfar and Santoro, 2008; Malmendier and Nagel, 2016; Pedemonte et al., 2023). Heterogeneity in expectations also reflects consumers' differing exposure to and interpretation of central bank communication and media coverage (Lamla and Maag, 2012; Dräger et al., 2016; Binder, 2017a,b; Binder and Rodrigue, 2018; Lamla and Vinogradov, 2019; Larsen et al., 2021).

Recently, this literature has focused on how the COVID-19 pandemic and associated policy responses affected expectations. The pandemic was accompanied by a large increase in inflation disagreement and uncertainty, as consumers initially struggled to interpret the potential inflationary consequences of the pandemic (Armantier et al., 2021). As inflation rose, consumers may have become more attentive to inflation (Braitsch and Mitchell, 2022), as seems to be generally the case in higher inflation environments (Weber et al., 2023). In fact, Mitchell and Zaman (2023) find that households' forecast accuracy relative to professional forecasters' accuracy increases as inflation rises.

Our work also contributes to the literature on partisanship in economic beliefs and expectations. Political science research has documented greater optimism among households whose preferred party holds the presidency (Bartels, 2002; Gerber and Huber, 2009; Prior et al., 2015; McGrath, 2017; Brady et al., 2022). In line with this, Coibion et al. (2020b) survey U.S. consumers before the 2020 presidential election and find polarized predictions of economic conditions conditional on election results. States with a greater share of congressional representatives from the President's political party have more favorable economic sentiment, which in turn boosts output growth (Benhabib and Spiegel, 2019).

Having one's preferred party in power is associated with not only greater optimism but also lower inflation expectations. This finding is robust across a variety of surveys (Mian et al., 2023; Binder, 2023; Kamdar and Ray, 2023). The New York Fed's Survey of Consumer Expectations does not ask about respondents' political preferences, but expectations in red states are higher when Democrats are in office, and expectations in blue states are higher when Republicans are in office (Bachmann et al., 2021). Farhart and Struby (2024) find partisan differences in inflation expectations in the 2022 Cooperative Election Study data that are driven by differences among "knowledgeable, low-trust partisans." Stantcheva (2024) surveyed consumers about inflation attitudes in December 2023 and January 2024, and found that Republicans had higher inflation perceptions and expectations, and were more likely to blame the

government or President Biden for high inflation.

The effect of partisanship on economic sentiment and expectations is not only a U.S. phenomenon, but is also documented for Australian consumers, for whom election-driven shifts in sentiment also drive shifts in spending intentions (Gillitzer et al., 2021). Partisan differences in expectations are also not limited to consumers, but also appear among professional forecasters in the Wall Street Journal survey (Kay et al., 2024) and among CEOs making earnings forecasts (Stuart et al., 2021).

Notably, partisan differences in inflation expectations have persisted despite efforts to insulate central banks from political pressure and to increase monetary policy transparency and credibility (Caporale and Grier, 2005; Alpanda and Honig, 2009; Binder, 2021). Consumers may nonetheless view the Fed as a political institution or attribute inflation outcomes to elected officials rather than to monetary policy (Binder and Skinner, 2023; Stantcheva, 2024).

The paper proceeds as follows. Section 2 describes the partisan gap in inflation expectations as well as indications that expectations became less shock-anchored in the pandemic period. Section 3 describes event studies around scheduled announcements and shows that Republican and Democrat expectations responded differently to these announcements. Section 4 presents an MSA-level expectations-augmented Phillips curve and presents our counterfactual exercises. Section 5 concludes.

2. Partisan Inflation Expectations and Anchoring

The Michigan Survey of Consumers (MSC) has collected data on households' expectations on a monthly basis since 1978. The survey asks a nationally-representative sample of respondents about their inflation expectations over the next 12 months and over the next five to ten years.² For the 12-month horizon, the MSC asks "By about what percent do you expect prices to go (up/down) on the average, during the next 12 months?" We use responses to this question as our measure of short-run inflation expectations. For the five-to-ten-year horizon, the MSC asks "By about what percent per year do you expect prices to go (up/down) on the average, during the next five to ten years?" We use answers to this question as our measure of long-run inflation expectations. However, it is worth noting the question elicits average inflation over the next five to ten years *not* five-year-ahead inflation expectations.

From 2006 through 2016, the MSC included occasional questions about respondents' political party preferences, but since February 2017 these questions have been asked every month. Respondents could report their affiliation as Republican, Democrat, Independent, don't know, or not applicable.³ Respondents who report being Independent, don't know, or not applicable are prodded about whether they lean Democrat or Republican. We classify those respondents according to their reported lean, so that only those respondents who do not report leaning towards either party are counted as Independent. This results in approximately 45% of respondents being classified as Democrats, 43% as Republicans, and 12% as Independents.

2.1. The Partisan Gap in Expectations

Respondents who share a political affiliation with the President have lower inflation expectations than those who do not. Figure 1 panels A and B plot the median short- and long-run inflation expectations of self-identified Democrats, Independents, and Republicans since 2012. Vertical lines indicate the re-election of Democrat Barack Obama in November 2012 and the elections of Republican Donald Trump in 2016 and Democrat Joe Biden in November 2020. Democrats' inflation expectations were lower than Republicans' during the Obama years, but this pattern swiftly reversed with Trump's election, and reversed again with Biden's election. Independents' short-run inflation expectations fall between those of Republicans and Democrats, though in recent years, they are closer to those of Republicans. Independents' long-run expectations tend to be closer to those of the party not in power.

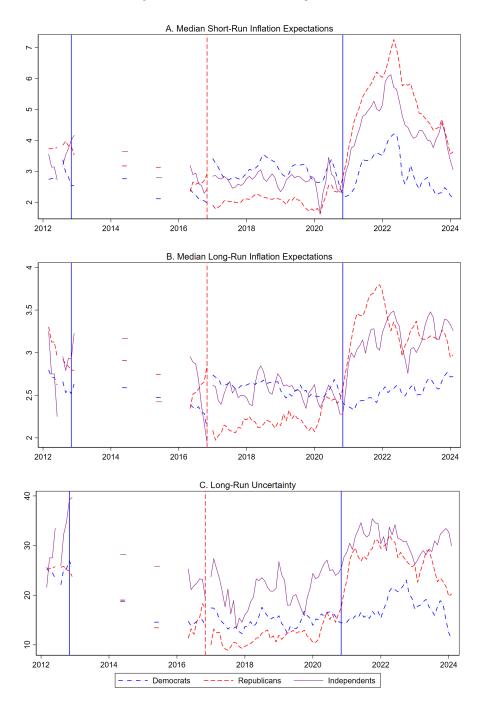
The strong dependence between inflation expectations and party affiliation holds even when controlling for other demographic variables that are plausibly correlated with both political party and inflation expectations. The first two columns of Table 1 show how short-run inflation expectations depend on party affiliation and demographic characteristics such as gender, education, and homeownership. We perform this analysis separately for the pre-COVID

²Our treatment of outliers follows Binder (2017c): expectations above 25% or below -10% are recoded as "don't know" responses.

³Most respondents answer this question, with only about 3% responding that they do not know or providing no response; however, about 40% state they are Independent.

⁴The pattern is similar if we plot the mean instead of the median as a measure of central tendency. See Figure A.1.

Figure 1: Partisan Divide in Inflation Expectations



Notes: Data from Michigan Survey of Consumers. Panels A and B show the median inflation expectations of Democrats and Republicans at the one-year and five- to ten-year horizons, respectively. Panel C plots the uncertainty index computed using methodology from Binder (2017c). Each series is plotted as a three-month moving average for visual clarity. Vertical lines denote Presidential election dates and winners.

period (prior to 2020) and for 2020-2024.⁵ The dummy variable PresidentParty indicates that the respondent is of

⁵Results are similar if we split the sample in March 2020, when the pandemic became more serious in the United States, or in November 2020,

the same political party as the president (or president-elect, in the months immediately following an election), and OppositionParty indicates that the respondent is of the other party. Both are zero for independents.

Before 2020, members of the President's party have inflation expectations that are about 0.92 percentage points lower than those of independents and members of the opposition party have expectations about 0.11 percentage points higher, so the gap between members of opposing parties is about 1.0 percentage point. Since 2020, those effects have more than doubled in magnitude, and the gap between Republicans and Democrats is 2.5 percentage points. Males, college-educated respondents, and homeowners all have systematically lower expectations than their survey counterparts, but the *partisan* gap in inflation expectations is the largest in magnitude.

For longer-run expectations, as shown in columns 3 and 4, both Independents and members of the opposition party have higher expectations than members of the President's party. Before 2020, the gap between members from opposing parties was about 0.5 percentage points; since 2020, it has expanded to about 0.8 percentage points. Again, this is larger than the gaps by gender, education, or home ownership.

	(1)	(2)	(3)	(4)
	1-yr, Pre-2020	1-yr, Since 2020	5-yr, Pre-2020	5-yr, Since 2020
PresidentParty	-0.92***	-1.85***	-0.57***	-0.87***
	(0.07)	(0.11)	(0.05)	(80.0)
OppositionParty	0.11	0.65***	-0.10*	-0.11
	(0.07)	(0.11)	(0.05)	(0.08)
Male	-0.69***	-0.62***	-0.41***	-0.32***
	(0.04)	(0.07)	(0.03)	(0.05)
College	-0.61***	-0.84***	-0.29***	-0.49***
	(0.04)	(0.07)	(0.03)	(0.05)
Homeowner	-0.22***	-0.13*	-0.11***	-0.23***
	(0.05)	(0.08)	(0.04)	(0.06)
N	34466	26466	34231	26412
\mathbb{R}^2	0.03	0.06	0.02	0.02

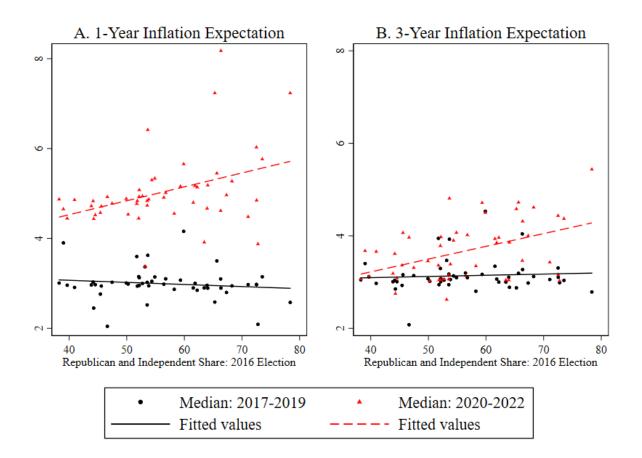
Table 1: Political Party and Inflation Expectations

Notes: Data from Michigan Survey of Consumers. Dependent variable is short-run inflation expectations in columns 1 and 2, and long-run inflation expectations in columns 3 and 4. Huber-White robust standard errors in parenthesis. *** p < 0.01, *** p < 0.05, * p < 0.10.

In recent years, the partisan gap in inflation expectations is large enough that it results in clear differences in average expectations in red states versus blue states. The Federal Reserve Bank of New York's Survey of Consumer Expectations (SCE) does not ask respondents about their political affiliation, but it does ask about their state of residence. Using this data, we calculate median inflation expectations *by state* for the years 2017-2019 and the years 2020-2022. Figure 2 plots the medians for each state against the state's Republican and Independent voter share from the 2016 election. For the 2017-2019 period, inflation expectations at either horizon do not vary with state political composition. In the 2020-2022 period, however, both short-run and longer-run state inflation expectations are increasing in the non-Democrat voter share. We also note that in the pandemic and post-pandemic period, short-run expectations rose in most states relative to the earlier period but that this increase is more pronounced in more Republican and Independent areas. Median longer-run expectations increase in more Republican areas in the later period, while staying close to pre-pandemic levels in more heavily Democrat areas. This reassures us that the partisan gap we observe in the Michigan Survey data is not a particular quirk of that dataset or of how respondents choose to self-report their party affiliation.

As Republicans' expectations increased, they also drifted away from the Fed's inflation target, which is one indication of de-anchoring (Ball and Mazumder, 2011; Binder et al., 2022). Table A.1 shows that between January 2020 and January 2024, Democrats' expectations are most likely, and Republicans' least likely, to be within a given window of the inflation target. Uncertainty about long-run inflation is also an indication of de-anchoring, and Figure

Figure 2: Inflation Expectations and Republican Voter Share by State



Notes: Data from the Survey of Consumer Expectations. Panel A shows the median one-year inflation expectation - calculated using data from each 2017 through 2019 and 2020 through 2022 - by state plotted against the share of the state voting for Donald Trump or a third party candidate in the 2016 election. Panel B shows the same for the three-year inflation expectation.

1 panel c shows that the long-run inflation uncertainty of Republicans rose substantially more than that of Democrats in 2020 and 2021.⁶ Another sign of de-anchoring is if expectations become more responsive to inflation itself and to shocks— that is, if they become less "shock anchored" (Ball and Mazumder, 2011). We next document that Republicans' expectations became less shock anchored in the sense that they covaried more with inflation and energy prices, and were more responsive to CPI releases.

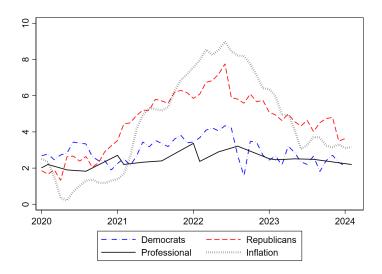
2.2. Comovement of Expectations with Inflation and Energy

In recent years, the partisan gap in inflation expectations is increasing in inflation. As is evident from Figure 3, the expectations of Republicans tracked inflation more closely than did the expectations of Democrats or professional forecasters since 2020.

The expectations regressions in Table 2 are similar to those in Table 1, but include year-over-year CPI inflation and inflation interacted with PresidentParty and with OppositionParty as independent variables. In the first two columns,

⁶Independents' long-run inflation uncertainty is even higher. Respondents who decline to provide any political affiliation nor lean toward either political party may have lower financial literacy, pay less attention to news in general, or be more inclined to answer survey questions with the "don't know" response.

Figure 3: Partisan Divide in Inflation Expectations During COVID



Notes: Data from Michigan Survey of Consumers. Figure shows median inflation expectations of Democrats and Republicans at the one-year horizons, median one-year CPI forecast from the Survey of Professional Forecasters, and year-over-year CPI inflation. Expectations of Independents are omitted for visual clarity.

we see that short-run expectations have covaried with inflation both pre- and post-2020. In both periods, the short-run expectations of members of the opposite party move most strongly with inflation. Since 2020, Independents' short-run expectations increase 0.5 percentage points for each percentage point rise in inflation, while Republicans' increase by 0.6 and Democrats' by 0.2.

Longer-run inflation expectations did not covary with inflation regardless of partisanship before 2020 (column 3). But since 2020, the coefficient on inflation is positive, and the coefficient on the interaction of PresidentParty and inflation is negative and of nearly the same magnitude (column 4). These estimates imply that for Republicans and Independents, long-run expectations increase by around 0.1 percentage points for each percentage point increase in inflation, while for Democrats, long-run expectations do not rise with inflation.

The inflation expectations of Republicans and Independents have also exhibited greater comovement with various measures of energy prices and demand- and supply-driven inflation than have Democrats' expectations in the COVID era. This evidence is summarized in Table 3. Notably, the longer-run inflation expectations of Democrats have correlations near zero with all of these measures, while Republicans and Independents have large and positive correlations. The results are qualitatively similar if lags of energy prices or demand- or supply-driven inflation are used (see Table A.2). Furthermore, regressing Democrats' short- or long-run inflation expectations on inflation, measures of energy prices, demand- and supply-driven inflation results in fewer significant coefficients and a lower R-squared than when using Republicans' and Independents' inflation expectations (see Table A.3).

We also update and extend the analysis from Binder (2018) to study differences in how Republicans versus Democrats weight gas prices in forming their inflation perceptions and expectations. Binder (2018) uses the inflation expectations and gas price expectations data from the Michigan Survey at both horizons, for respondents who took the survey twice, to infer consumers' beliefs about the dynamics of core and gas price inflation, and the weight ω that consumers put on gas prices when forming their expectations of inflation. She estimates $\omega = 4\%$, which is similar to the expenditure share on gasoline, indicating no overweighting of gas prices in inflation expectations. Since 2020, the estimate of ω is 5% for Democrats and 8% for Republicans, meaning that Republicans weight gas prices nearly twice as heavily as Democrats in their expectations formation.

Table 2: Political Party and Comovement of Expectations with Inflation

	(1)	(2)	(3)	(4)
	1-yr, Pre-2020	1-yr, Since 2020	5-yr, Pre-2020	5-yr, Since 2020
Inflation	0.30***	0.50***	-0.01	0.12***
	(0.08)	(0.04)	(0.06)	(0.03)
Inflation_PresidentParty	0.05	-0.27***	0.04	-0.10***
	(0.09)	(0.04)	(0.06)	(0.03)
Inflation_OppositionParty	0.23***	0.10**	0.03	-0.00
	(0.09)	(0.04)	(0.06)	(0.03)
PresidentParty	-0.99***	-0.56***	-0.64***	-0.41***
	(0.18)	(0.19)	(0.13)	(0.13)
OppositionParty	-0.33*	0.31	-0.16	-0.06
	(0.19)	(0.19)	(0.13)	(0.14)
Male	-0.70***	-0.70***	-0.41***	-0.34***
	(0.04)	(0.07)	(0.03)	(0.05)
College	-0.62***	-0.73***	-0.29***	-0.47***
	(0.04)	(0.07)	(0.03)	(0.05)
Homeowner	-0.19***	-0.24***	-0.11***	-0.26***
	(0.05)	(0.07)	(0.04)	(0.06)
N	34466	26466	34231	26412
\mathbb{R}^2	0.05	0.11	0.02	0.02

Notes: Data from Michigan Survey of Consumers. Dependent variable is short-run inflation expectations in columns 1 and 2, and long-run inflation expectations in columns 3 and 4. Huber-White robust standard errors in parenthesis. *** p < 0.01, ** p < 0.05, * p < 0.10.

Table 3: Comovements of Inflation Expectations

	Short-Run Inflation Expectations			Long-Run Inflation Expectations		
	Democrat	Independent	Republican	Democrat	Independent	Republican
Inflation	0.55	0.80	0.91	0.06	0.53	0.65
Gas Price	0.41	0.78	0.84	0.24	0.67	0.59
Oil Price	0.42	0.84	0.88	0.20	0.70	0.64
Gas Price Growth	0.62	0.70	0.74	-0.21	0.35	0.65
Demand Driven Inflation	0.41	0.75	0.85	0.14	0.60	0.65
Supply Driven Inflation	0.63	0.78	0.87	-0.05	0.42	0.63

Notes: Correlation coefficients between median short-run or long-run inflation expectations of Democrats, Independents, and Republicans with contemporaneous CPI inflation, gas prices, oil prices, the percent change in gas prices over the past year, and year-over-year supply-driven and demand-driven headline inflation from Shapiro (2022). Data from January 2020 through January 2024.

3. Response of Expectations to Events

We have shown that Republicans' inflation expectations rose substantially more than Democrats' during the COVID-era rise in inflation. In this section, we use higher-frequency analysis to study the differential responses of Democrats and Republicans to CPI releases. For this analysis, we make use of the fact that the Michigan Survey has recorded the exact date that respondents took the survey. The high frequency data facilitates clean identification of the drivers of expectations via an event study approach, in which respondents who took the survey within a few days before an event of interest serve as a control group for respondents who took the survey within a few days after the event. The difference in expectations between the groups provides an estimate of the effect of the event on expectations. The approach is similar to those of Binder, Campbell and Ryngaert (forthcoming) and York (2023) who use the SCE and Michigan survey, respectively, to study the response of expectations to data releases.

Building on the work of Binder, Campbell and Ryngaert (forthcoming), we hypothesize that Republicans' expectations may have been particularly sensitive to events. That is, we are interested in the *differential* effect of events on Republicans' versus Democrats' expectations. Thus, restricting our sample to Republicans and Democrats, we conduct the following event study:

$$E_{i,t}\left[\pi^{1YR}\right] = \alpha + \beta_1 Post_t \times Republican_i + \beta_2 Post_t + \beta_3 Republican_i + \epsilon_{i,t},\tag{1}$$

where our dependent variable, $E_{i,t}\left[\pi^{1YR}\right]$, is respondent i's one-year ahead inflation expectation reported on day t. The indicator $Post_t$ is equal to zero before the event date and equal to one on the event date and after. The indicator $Republican_i$ is equal to one if respondent i states they are politically affiliated with the Republican party or if they "lean" Republican. Thus, β_2 is the estimated treatment effect of the event on the expectations of both Republicans and Democrats, and β_3 captures any consistent level difference between Republican and Democratic expectations. Importantly, β_1 is our coefficient of interest. It indicates how Republicans differentially changed their inflation expectations relative to Democrats following an event.

3.1. High-Frequency Response to Announcements

We focus our high-frequency analyses around CPI announcements, which - given their content - we assert are the most likely to affect inflation expectations. We use ten day windows (five days before the event and five days after the event). A ten day window balances the tradeoff between the benefit of clearly isolating the effect of an event with a narrow window and the cost of lost observations and power. Figure 4 plots the partisan response coefficient (β_1) from equation 1 for each CPI release between September 2020 through January 2022. Panel A uses one-year ahead inflation expectations as the dependent variable, whereas panel B uses five-to-ten-year inflation expectations. On average, each event study is estimated on 160 responses. Both panels also include the times series for the reported, real-time, change in CPI inflation (plotted on the right-hand-side axis).

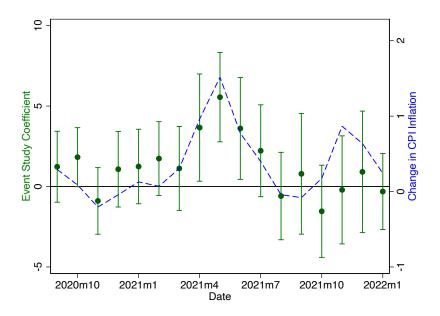
From September 2020 though March 2021, every reported CPI inflation rate was below 2%. During this low and stable inflation period, there were no significant differences in Republican inflation expectations relative to Democrats following CPI releases.⁸ However in April 2021, the March 2021 CPI was released and CPI inflation was reported as increasing from 1.7% to 2.6%.⁹ Republican one-year ahead inflation expectations significantly and differentially rose relative to Democrats ($\hat{\beta}_1 = 3.7$) following this near one percentage point rise in inflation. That is, in the days following the CPI release Republicans differentially increased their short-run inflation expectations by 3.7 percentage points more than Democrats.

⁷For 2019 to April 2023, we obtained the daily dates directly from the MSC via email. Daily interview dates prior to 2019 are available from the Inter-University Consortium for Political and Social Research.

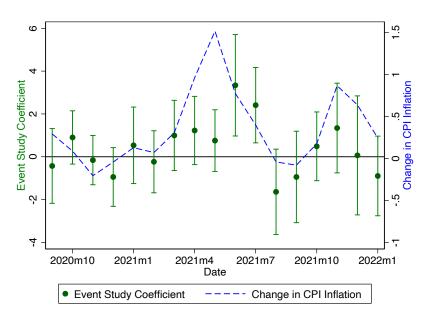
⁸Figure A.2 expands the analysis to a longer window. Prior to COVID (2019 through February 2020), the differential effects of CPI announcements on Republican expectations relative to those of Democrats were near zero, insignificant, and had tight standard errors. In the early COVID period (March 2020-March 2021) when vaccines were in development or not widely available and inflation was under 2%, we see no significant difference in Republican responses to CPI releases relative to Democrats; however, the estimated event study coefficients are mostly small and positive.

⁹These are the real-time estimates in April 2021 of year-over-year CPI inflation in February and March 2021, respectively.

Figure 4: High-Frequency Analysis of Partisan Expectations to CPI Releases



Short-Run Inflation Expectations



Long-Run Inflation Expectations

Notes: Data from Michigan Survey of Consumers. Estimates of β_1 and 90% confidence intervals are plotted from equation 1 on the left-hand side axis. Panel A uses one-year inflation expectations and panel B uses five-to-ten-year inflation expectations. On the right-hand side axis, the change in percent inflation in real-time data is plotted. Note that in any given month, the previous month's CPI is reported. Accordingly the change in inflation is lagged by one month to be consistent with the news being reported in a given month. Individuals who state they are Republican or lean Republican are classified as Republicans, and similarly for Democrats. If respondents, do not know their affiliation or do not lean towards either party, they are excluded.

The following month, inflation rose even faster. Specifically in May 2021, it was reported that CPI inflation rose from 2.6% to 4.1%. We find that following this announcement Republicans significantly increase their one-year ahead inflation expectations relative to Democrats with an estimated $\hat{\beta}_1 = 5.6$. The rapid ascent of inflation continued in June 2021 when reported CPI inflation rose from 4.1% to 4.9%. Again, Republicans significantly increased their one-year ahead inflation expectations relative to Democrats, by an estimated differential of 3.6 percentage points. Furthermore, for the first time in the sample, there is a significant differential response of Republicans raising their five-to-ten year inflation expectations relative to Democrats ($\hat{\beta}_1 = 3.3$).

Inflation continued to rise and in July 2021 the inflation rate of 5.3% was released. This was an increase of only 0.4 percentage points, which was smaller than the previous three months. While the estimated event study coefficient suggests that Republicans differentially increased their one-year ahead inflation expectations by 2.2 percentage points, this effect is insignificant. Yet, long-run inflation expectations did exhibit a significant differential response.

In the months that followed, inflation continued to rise; however, at a slower pace than the summer of 2021 and Republicans did not differentially change their inflation expectations relative to Democrats. Figure A.2 plots a longer time series and shows that in 2022 through April 2023 (when inflation peaked and began falling), standard errors on the estimated event study coefficient widen. This is consistent with the rise in uncertainty about inflation.

Summarizing the results, the estimated differential response of Republican inflation expectations (relative to Democrats) to CPI releases is positively correlated with the reported change in inflation during the COVID era. Our findings are not simply the result of consistently rising Republican inflation expectations. Figure A.4 plots seven-day, rolling-window regressions of one-year ahead inflation expectations on a dummy for Republican. Clearly, Republican inflation expectations spike following the CPI releases in April, May, and June 2021 (denoted by red vertical lines). Furthermore, placebo tests on non-event days do not result in significant differences in Republican and Democratic expectations. In Figure A.5, we replicate the analyses presented in Figure 4 using a hypothetical event ten days after the actual CPI announcement. There are no significant differential changes in inflation expectations around these placebo dates.

Next, we may want to consider if the differential responses of inflation expectations in the event study are driven by the rise of Republican inflation expectations or the decline of Democratic inflation expectations. Figure A.3 conducts a simple event study of one-year inflation expectations on a dummy variable indicating on or after a CPI release. Panel A uses only Republicans and panel B uses only Democrats. Republicans indeed increase their short-run inflation expectations in response to CPI releases in April, May, and June 2021 and significantly so in the latter two months. Interestingly, despite notable increases in inflation in April, May, and June 2021, Democrats decreased their inflation expectations around these CPI releases. In terms of the magnitudes of the coefficients, the Republican increases in expectations are larger than the decreases in Democratic expectations.

There are two mechanisms that may be driving these findings. First, Republicans were more uncertain about inflation than Democrats (Figure 1 panel c), so incoming news about rising inflation may have been more likely change the expectations of Republicans than Democrats. This would be consistent with a model of Bayesian updating where Republicans have more uncertain priors than Democrats and thus Republicans make larger changes to their beliefs conditional on the same signal.

Second, some of the differential response of partisan inflation expectations is likely driven by the news narrative around inflation in these months. For instance, the term "transitory" was first used by the Federal Open Market Committee on April 28, 2021 with the statement "Inflation has risen, largely reflecting transitory factors." This was the first use of the word "transitory," and a major break from the previous statement, which noted that "Inflation continues to run below 2 percent." Shortly after the Fed's description of inflation as "transitory," the Biden administration took the same position. Within this context, news organizations often discussed the framing that inflation was fleeting; however, the tone of the coverage varied across news organizations. Reporting on CNN was more sympathetic to the Fed and administration view. For example, a CNN article on May 14th, covering the recent CPI release, noted that "The rise in inflation might also be a little exacerbated by the fact that prices were unnaturally low a year ago, when the pandemic erupted... For now at least, there's no panic at the White House—and officials are even arguing that the rise in prices is a sign that Americans are willing to come out of quarantine after getting vaccinated. White House press secretary Jen Psaki this week argued that some transitory increases in inflation were to be expected as America resumed activity: 'That's something that we have prepared for and that most economists say will be temporary." ¹⁰ On

¹⁰Stephen Collinson, May 14, 2021. "America's new mask rule means new questions." CNN Wire.

Fox News, in contrast, commentator Peter Schiff noted, "Well, now they're saying, don't worry about inflation. It is transitory. Inflation is as transitory now as the subprime market was contained..." If partisans consume different news sources, differential framing of the rise in inflation could have driven the differential inflation expectation responses to CPI releases.

4. Inflation Expectations and Realized Inflation

The previous sections have provided evidence of a partial and heterogeneous de-anchoring of consumer expectations in the COVID era. Expectations remained well-anchored for Democrats, but less so for Republicans and Independents. In this section, we examine how this partisan de-anchoring may have affected inflation dynamics. If non-Democrats were simply "voting by survey"— that is, reporting high inflation expectations on the survey to express their dislike of the Biden Administration—then their higher reported expectations might be a form of measurement error that does not matter for inflation. This does not seem to be the case: we find non-trivial inflationary effects from the partial de-anchoring.

Consider a standard expectations-augmented Phillips curve of the form:

$$\pi_t = \lambda u_t + \gamma E_t[\pi] + \epsilon_t, \tag{2}$$

where u_t is unemployment, π_t is inflation, and $E_t[\pi]$ is expected inflation. Hazell et al. (2022) show that this equation can be estimated at a subnational level:

$$\pi_{r,t} = \lambda u_{r,t} + \gamma E_{r,t}[\pi] + w_r + e_t + \epsilon_{r,t} \tag{3}$$

where w_r is regional r's fixed effect and e_t is a time effect. Hazell et al. (2022) and others that have used regional data to estimate the above equation have focused on the slope (the coefficient λ on unemployment). They iterate forward so that the regional Phillips curve has long-run expected inflation, and assume that long-run inflation expectations are common across regions, since they "depend solely on the monetary policy regime in place" (Cerrato and Gitti, 2024, p. 8). Thus, the expectations term is wiped out by the time fixed effects. We argue that long-run expectations depend not only on the monetary policy regime in place but also on the partisan interpretations of the monetary regime. As we saw in Figure 2, in the pandemic and post-pandemic period, inflation expectations rose more in more densely Republican states. To the extent that there are regional differences in partisan composition, there will be regional differences in long-run inflation expectations.

In principle, one might estimate equation 3 using measures of average inflation expectations in each locality of interest $(E_{r,t}[\pi])$ directly from either the Michigan Survey or the Survey of Consumer Expectations. To estimate this equation, however, we need an estimate of inflation expectations as well as realized unemployment and inflation at the same geographic level. Realizations are available at both the Census region and MSA level. While direct measures of expectations at the Census region level are available, these are quite noisy and leave us with only four groups in the panel. The Michigan Survey does not provide respondents' MSA, so direct measures of expectations by MSA are not available.

We exploit geographic variation in political composition and time-varying changes in partisan disagreement to model expectations as:

$$\tilde{\pi}_{r,t} = \sum_{k} \omega_{r,k} E_{k,t}[\pi] \tag{4}$$

where $\omega_{r,k}$ is the percentage of region r belonging to political group k. $E_{k,t}[\pi]$ is group k's time t expectation of national inflation. We define three political groups - Republicans, Democrats, and Independents. The shares, ω are determined using voter shares from the 2016 election: $\omega_{r,Rep.}$ is the share of the population of location r that voted for Donald Trump, $\omega_{r,Dem.}$ is the share that voted for Hillary Clinton and $\omega_{r,Ind.}$ is the share of third party voters. We measure the average inflation expectations of each group with the Michigan Survey. ¹² In the post-pandemic era, $\tilde{\pi}_{r,t}$

¹¹Tucker Carlson, Trace Gallagher, Mollie Hemingway, May 12, 2021. Tucker Carlson Tonight, Fox News Network.

¹²We calculate the average Democrat inflation expectation as the average expectation of those who report their political affiliation as Democrat or as Independent and report that they are closer to Democrat. We calculate the average Republican expectation in an analogous manner.

is higher either when Republican or Independent expectations rise relative to Democrat expectations (i.e. partisan de-anchoring) or when a region is more exposed to this de-anchoring due to a higher concentration of Republicans and Independents.

We estimate the effect of de-anchoring on realized inflation with the following regression:

$$\pi_{r,t} = \beta_0 + \beta_1 \tilde{\pi}_{r,t} + \beta_2 u_{r,t} + w_r + e_t + \epsilon_{r,t}$$
 (5)

Note that if there is no partisan disagreement in inflation expectations, that is $E_{Rep.,t}[\pi] = E_{Dem.,t}[\pi] = E_{Ind.,t}[\pi]$, or no geographic variation in political composition, that is $\omega_{r,k} = \omega_k$ for all k and r, then $\tilde{\pi}_{r,t}$ varies only with time and is therefore absorbed by the time fixed effect. A causal interpretation of β_1 requires that the components of $\tilde{\pi}_{r,t}$ are exogenous. That is, $E[\epsilon_{r,t}|\omega_{r,k}] \, \forall k$ and $E[\epsilon_{r,t}|E_{k,t}[\pi]] \, \forall k$ (Goldsmith-Pinkham et al., 2020). As the expectations for each party are calculated at the national level, these expectations should be exogenous to local shocks that might impact both expectations and inflation. The shares may pose a threat to endogeneity if partisan governance impacts inflation. We discuss this assumption more in Section 4.1.

4.1. MSA-level Phillips Curve

Realized MSA-level inflation was higher in more densely Republican and Independent MSAs. To capture the geographic differences in political affiliations, we use 2016 voter shares from the television media market corresponding to each MSA as collected by Daily Kos. The Republican and third party voter shares in our dataset range from 26% (San Francisco) to 58% (Dallas). We start our sample in 2012 to coincide with the introduction of inflation targeting. Figure 5 plots realized inflation - less MSA and date fixed effects - in June of 2019 and June of 2022. Prior to the COVID-19 pandemic, inflation was lower in less heavily Democrat areas. In the post-pandemic period, this relationship reversed.

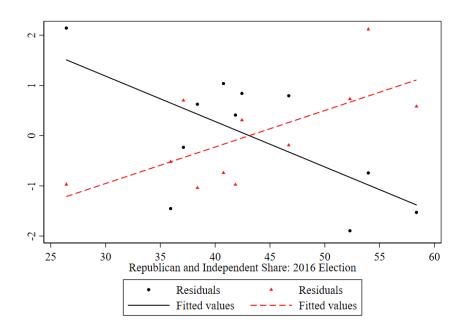


Figure 5: Inflation Realizations and Partisan Composition

Notes: The figure plots the residual of a regression of realized inflation on time and MSA fixed effects against the share of the MSA voting for Donald Trump or a third party candidate in the 2016 election. These appear in black circles and solid line for June 2019 and orange triangles and dashed line for 2022.

We use variation in realized inflation and unemployment across MSAs as in Cerrato and Gitti (2024) to estimate equation 5. The BLS collects monthly unemployment rates at the MSA level. We construct an inflation rate using

the local CPI calculated by the BLS. This index is calculated monthly for New York, Chicago, and Los Angeles, and bi-monthly for several other MSAs. Following Cerrato and Gitti (2024), we linearly interpolate the CPI to fill the missing inflation observations, giving us monthly data to match the frequency of the Michigan Survey. We construct a proxy for the inflation expectation of the MSA using the average party expectation and the voter shares used in Figure 5. A causal interpretation of our estimates requires that changes in inflation be exogenous to the share $\omega_{r,k}$. The pandemic period leaves room to doubt this assumption, as pandemic response policies varied with the regional political composition and possibly contributed to inflationary pressures. To address this concern, we include the interaction between time fixed effects and an indicator equal to one if the state of the main city in the MSA had a Republican governor in that period. This allows time-varying shocks to affect inflation differently in Republican-governed areas, possibly through policy responses to COVID chosen by the state executive on partisan lines.

Table 4: MSA-Level Phillips Curve

Panel A			
	(1)	(2)	(3)
	Inflation	Inflation	Inflation
Unemp.	-0.231**	-0.228**	-0.232**
	(0.090)	(0.088)	(0.089)
$\tilde{\pi}_1 yr$	1.504***		1.574**
	(0.384)		(0.673)
$\tilde{\pi}_{5}yr$		3.396***	-0.206
		(0.874)	(1.488)
N	1123	1123	1123
\mathbb{R}^2	0.92	0.92	0.92
Rep. Gov. × Time FE	Y	Y	Y

Panel B			
	(1)	(2)	(3)
	Infl. Less Shelter	Infl. Less Shelter	Infl. Less Shelter
Unemp.	-0.139**	-0.135**	-0.139**
	(0.062)	(0.062)	(0.061)
$\tilde{\pi}_1 yr$	1.381***		1.303***
	(0.268)		(0.492)
$\tilde{\pi}_{5}yr$		3.212***	0.230
		(0.616)	(1.075)
N	1123	1123	1123
\mathbb{R}^2	0.93	0.93	0.93
Rep. Gov. × Time FE	Y	Y	Y

Notes: Dependent variable is MSA level all-price CPI inflation in panel A and CPI inflation less shelter in panel B. All regressions include an indicator that is equal to 1 if the governor is a Republican interacted with time fixed effects. Driscoll-Kraay standard errors in parentheses. *** p< 0.01, ** p< 0.05, * p< 0.10.

We find a strong positive and significant relationship between inflation expectations and inflation itself. Table 4 panel A presents the results of estimating equation 5 with 1-year and 5-year inflation expectations in columns 1 and 2. The dependent variable is all-items CPI inflation. The coefficients on expectations imply that a one percentage-point increase in 1-year or 5-year inflation expectations lead to a 1.5 or 3.4 percentage point increase in inflation, respectively.¹³ The difference in coefficients reflects that the partisan difference in expectations is larger for short-run inflation expectations than for long-run expectations. Recent work suggests that shorter run expectations may influence inflation more than longer run expectations (Werning, 2022). The coefficients from a horse race regression

¹³Table A.4 shows that the coefficients are similar if we omit the Republican governor by time effects.

including both 1-year and 5-year inflation expectations appear in column 3. The coefficient on 1-year inflation is similar to that in column 1 and the coefficient on 5-year inflation is now negative and no longer statistically significant. This suggests that shorter-run inflation expectations are more important than longer-run inflation expectations for inflation dynamics. Abrizio et al. (2023) and Hajdini (2023) similarly find that near-term inflation expectations played a key role in inflation dynamics across many economies in the post-pandemic period.

The pandemic period was marked by a surge of domestic migration towards southern states, which tend to be more Republican than the rest of the country. This led to an increase in rental prices in these areas. To check that our results are not solely driven by cost of rent, we repeat the above analysis using CPI less shelter inflation as the dependent variable. The results appear in Table 4 panel B. The coefficients have the same signs as those in panel A but the magnitudes are slightly smaller. Specifically, in columns 1 and 2, the coefficients on expected one-year and five-year expectations are 1.4 and 3.2. The results of the horse race regression in column 3 are also similar to those in panel A.

We note a few caveats around this analysis. Firstly, the measures of inflation we use as our dependent variables in Table 4 include tradeable goods. Hazell et al. (2022) use the inflation rate for non-tradeables because nationally set prices will drive the slope of the regional Phillips curve - λ in equation 3 - towards zero even if it is non-zero in the aggregate Phillips curve. While we focus on the coefficient on expected inflation, γ , failing to account for input-output linkages across regions and nationally set prices nevertheless renders the model misspecified. Furthermore, the New-Keynesian Phillips curve is derived under full-information rational expectations. Adam and Padula (2011) note the curve can still be derived under the weaker assumption of the Law of Iterated Expectations holding for beliefs. However, a failure of the Law of Iterated Expectations would mean the standard New-Keynesian Phillips curve, which we estimate across regions, would not be correctly specified. Finally, the above results predict that inflation responds immediately to expectations while the mechanisms whereby expected inflation may translate to realize inflation - some of which we discuss in Section 4.3 - may operate with lags.

4.2. Counterfactual Analysis

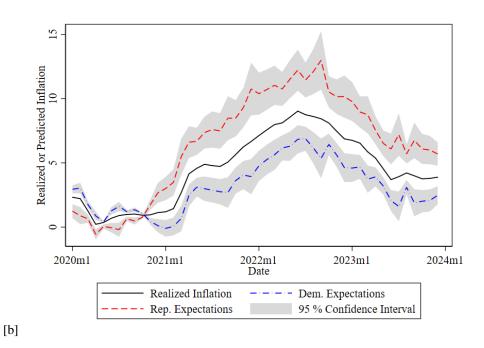
Next we present a reduced form counterfactual exercise to emphasize the implied effect of elevated inflation expectations on realized inflation. We consider the predicted path of inflation under two extremes of expectations anchoring - all households unanchored or all households anchored. Specifically, we use the regression coefficients from column 3 of Table 4 panel A to predict for each MSA what realized inflation would have been if the average year-ahead expectation in all regions was equal to the average expectations of Republicans (all unanchored) or equal to the average expectations of Democrats (all anchored). The counterfactual expectations in *all* MSAs will be higher than $\tilde{\pi}_{r,t}$ when set equal to the average Republican expectation and lower when set equal to the average Democrat expectation, as all MSAs have at least some Republican, some Democrat, and some third party voters. The partisan gap in expectations provides us with reasonable numerical expectations to assign to each the unanchored and anchored groups. Importantly, this counterfactual is exploring the effect of *inflation expectations* on inflation not *partisanship* on expectations.

The resulting fitted values show that inflation would have been higher if all expectations de-anchored and lower had all expectations remained anchored. The solid black line in Figure 6 shows the average realized inflation rate across MSAs.¹⁴ The average predicted values when all expectations are equal to those of Democrats and those of Republicans are given by the blue dot-dashed and red dashed line. The fully de-anchored case - shown as a red dashed line - returns predicted values of inflation well above the average realization throughout the pandemic period and into 2024. The blue dot-dashed line, the case where all expectations remain firmly anchored implies lower than realized inflation for the entire pandemic and post-pandemic period.

Jointly, these results suggest that the partial de-anchoring of expectations did play a role in the increase in inflation and - importantly - the fact that inflation expectations remain de-anchored for part of the population continues to slow the return of inflation to its target level. Realized inflation throughout 2023 remained above its early 2020 level. The counterfactual case in which all expectations remained anchored implies predicted inflation close to pre-pandemic levels. These results suggest that policymakers are correct in their concerns about inflation expectations feeding inflation itself.

¹⁴This is an unweighted average of inflation across MSAs and will be slightly different from the corresponding national inflation rate.

Figure 6: Counterfactual Inflation



Notes: This figure plots realized inflation as well as predicted inflation under two counterfactual values of $E_{r,t}[\pi]$, $E_{Rep,t}[\pi]$ and $E_{Dem,t}[\pi]$. The solid line gives the average realized inflation rate across MSAs. The predicted inflation rates when all expectations are equal to those of Republicans or equal to those of Democrats are given by the dashed red and dot-dashed blue lines, respectively.

4.3. Mechanisms

Our results show that the higher inflation expectations of Republicans were correlated with higher realized inflation in Republican MSAs during the COVID era. There are many mechanisms that may drive this relationship, varying from households' purchasing decisions and labor search behavior, to the pricing decisions of firms. While we are unable to disentangle which channel played a leading role during this period, we next appeal to existing literature to discuss potential transmission mechanisms.

Consumption. Our findings may be driven by intertemporal substitution, a canonical force in macroeconomic models. In response to higher inflation expectations, intertemporal substitution suggests households would expect lower real interest rates through the Fisher equation and thus substitute future consumption to the present through the consumption Euler equation. Applying this to our context, Republicans expecting high inflation would also expect lower real interest rates. Lower real rate expectations, in turn, would result in households substituting consumption towards the present, thus putting upward pressure on prices in Republican areas.

Intertemporal substitution is not only prominent in theoretic models, but empirical research has also provided support for this mechanism. For instance, Crump et al. (2022) and Dräger and Nghiem (2021) estimate the Euler equation using survey data and find evidence in favor of intertemporal substitution. More broadly, there is a large literature that assesses the effects of higher expected inflation on spending decisions of households. Several papers have found positive correlations between inflation expectations in survey data and spending, either planned or realized (Vellekoop and Wiederholt, 2019; Duca-Radu et al., 2021; Binder and Brunet, 2022). Others have added nuance to this finding suggesting that the correlation is driven by high-IQ individuals or those who are good at forecasting inflation (D'Acunto et al., 2022; D'Acunto et al., 2023; Burke and Ozdagli, 2023). More recently, researchers have employed randomized control trials to create exogenous variation in inflation expectations to determine the causal effect on spending (Coibion et al., 2023, 2024; Galashin et al., 2020; Roth and Wohlfart, 2020). A prominent example of the RCT approach is Coibion et al. (2022) where the authors use a notably large sample (20,000 US households) and have measures not only of survey-based planned spending but also scanner-based realized spending. They find that households increase their actual spending on non-durables and services when their inflation expectations increase.

Labor Markets. Inflation expectations may also have generated inflationary pressure in wage negotiations. Workers may incorporate higher inflation expectations into their wage demands, putting upward pressure on prices set by firms leading to possible wage-price spirals as in Blanchard (1986). Policy makers value well-anchored inflation expectations as they prevent such expectations-driven spirals (Bernanke et al., 2007). Recent research suggests that inflation expectations influence wages through on-the-job search. Pilossoph and Ryngaert (2022) use a survey design with hypothetical inflation scenarios to show that workers are more likely to search for new work when hypothetical future inflation is high than when it is low. Hajdini et al. (2022) find low passthrough of inflation expectations to income growth and that increases in inflation expectations make workers more likely to search for a new job that pays more.

Expectations of Price Setters. Our results may also be driven by the actions of price-setters rather than the actions of households. The expectations that appear in an expectations-augmented New Keynesian Phillips curve derived from theory are those of firms. These firms may raise actual prices as their inflation expectations increase, creating realized inflation. To the extent that there is regional variation along party lines in not only consumer expectations but also firm expectations, then our results may be driven by pricing decisions. Specifically, more Republican MSAs may have had firms with higher inflation expectations, who thus raised prices or were more receptive to higher wage demands. These would lead to higher inflation relative to more Democratic areas.

Empirical RCTs provide support for the effect of inflation expectations on firm actions, though not universally on price- and wage-setting decisions. Coibion et al. (2020a) show that higher inflation expectations causally result in firms raising prices in Italy. Coibion et al. (2018) and Coibion et al. (2021) show that higher inflation expectations causally increase firm investment and employment in New Zealand but do not change firm price- or wage-setting.

¹⁵Note that existing work does not consistently find a positive relationship between inflation expectations and consumption. For instance, a negative or insignificant relationship are found in Bachmann et al. (2015); Jiang et al. (2024); Kamdar and Ray (2023). See D'Acunto et al. (2023) and Weber et al. (2022) for reviews of this literature.

5. Conclusion

During the COVID-19 rise in inflation, Democratic expectations stayed remarkably anchored while Republican inflation expectations rose and fell with realized inflation. This environment —in which two groups of consumers face the same macroeconomic conditions and monetary policy, but different beliefs about the monetary regime —provides a unique setting in which to study the effects of inflation expectations on inflation. We exploit the geographic variation in political affiliation to suggest that the partial de-anchoring of expectations may have contributed to the surge in inflation. In counterfactual exercises, we show that had all expectations become as unanchored as those of Republicans, average inflation would have been two to three percentage points higher for much of the period when inflation was rising.

For policymakers, these results emphasize the importance of well-anchored inflation expectations for facilitating price stability. As policymakers monitor inflation expectations, especially during periods of crisis or rising inflation, they may want to track the expectations of consumers from different geographic regions and political backgrounds for early signs of partial deanchoring. In addition, central banks that rely on communication with the public as a policy tool should be aware that media narratives about inflation may differ across outlets of different political leanings.

Our findings also warn of the possibility that economic and political instability may feed on each other. A danger of high inflation is that it may contribute to political polarization, which has increased dramatically in the United States over the past three decades. With this rise in polarization, partisan antipathy has surged, and policy preferences have become more divided (Pew Research Center, 2014; Drew Desilver, 2022; Mark Murray and Alexandra Marquez, 2023). Political disagreement about the economy may, in turn, make it more difficult to sustain sound macroeconomic policy.

Even when central banks are politically independent, a highly polarized public may view monetary policy in a political light, or attribute the state of the economy to the President. In such an environment, the benefits of central bank independence may be more difficult to convey to the public, and the norms against presidential interference with monetary policy may be eroded.

References

Abrizio, S., Bluedorn, J., Dizioli, A., Koch, C., Wingender, P., 2023. Managing Expectations: Inflation and Monetary Policy, in: World Economic Outlook: Navigating Global Divergences. International Monetary Fund.

Adam, K., Padula, M., 2011. Inflation Dynamics and Subjective Expectations in the United States. Economic Inquiry 49, 13-25.

Alpanda, S., Honig, A., 2009. The Impact of Central Bank Independence on Political Monetary Cycles in Advanced and Developing Nations. Journal of Money, Credit and Banking 41, 1365–1389.

Armantier, O., Kosar, G., Pomerantz, R., Skandalis, D., Smith, K., Topa, G., van der Klaauw, W., 2021. How Economic Crises Affect Inflation Beliefs: Evidence from the Covid-19 Pandemic. Journal of Economic Behavior and Organization 189, 443–469.

Bachmann, O., Gründler, K., Potrafke, N., Seiberlich, R., 2021. Partisan Bias in Inflation Expectations. Public Choice 186, 513-536.

Bachmann, R., Berg, T.O., Sims, E.R., 2015. Inflation Expectations and Readiness to Spend: Cross-Sectional Evidence. American Economic Journal: Economic Policy 7, 1-35. URL: https://ideas.repec.org/a/aea/aejpol/v7y2015i1p1-35.html.

Ball, L., Mazumder, S., 2011. Inflation Dynamics and the Great Recession. Brookings Papers on Economic Activity .

Bartels, L.M., 2002. Beyond the Running Tally: Partisan Bias in Political Perceptions. Political Behavior 24, 117-150.

Benhabib, J., Spiegel, M.M., 2019. Sentiments and Economic Activity: Evidence from US States. Economic Journal 129, 715–733.

Bernanke, B.S., et al., 2007. Inflation Expectations and Inflation Forecasting, in: Speech at the Monetary Economics Workshop of the National Bureau of Economic Research Summer Institute, Cambridge, Massachusetts, p. 11.

Binder, C., 2017a. Fed Speak on Main Street: Central Bank Communication and Household Expectations. Journal of Macroeconomics 52, 238–251.

Binder, C., 2017b. Federal Reserve Communication and the Media. Journal of Media Economics 30, 191-214.

Binder, C., 2017c. Measuring Uncertainty Based on Rounding: New Method and Application to Inflation Expectations. Journal of Monetary Economics 90, 1–12.

Binder, C., 2018. Inflation Expectations and the Price at the Pump. Journal of Macroeconomics.

Binder, C., 2021. Political Pressure on Central Banks. Journal of Money, Credit, and Banking 53, 715–744.

Binder, C., 2023. Political Party Affiliation and Inflation Expectations. Brookings Commentary .

Binder, C., Campbell, J., Ryngaert, J., forthcoming. Consumer Inflation Expectations: Daily Dynamics. Journal of Monetary Economics .

Binder, C., Janson, W., Verbrugge, R., 2022. Out of Bounds: Do SPF Respondents Have Anchored Inflation Expectations. Journal of Money, Credit, and Banking.

Binder, C., Kamdar, R., 2022. Expected and Realized Inflation in Historical Perspective. Journal of Economic Perspectives 36, 131–156.

Binder, C., Rodrigue, A., 2018. Household Informedness and Long-Run Inflation Expectations: Experimental Evidence. Southern Economic Journal 85, 580–598.

Binder, C., Ryngaert, J., forthcoming. Consumer and Firm Inflation Expectations.

- Binder, C., Skinner, C., 2023. The Legitimacy of the Federal Reserve. Stanford Journal of Law, Business and Finance 28.
- Binder, C.C., Brunet, G., 2022. Inflation Expectations and Consumption: Evidence from 1951. Economic Inquiry 60, 954-974.
- Blanchard, O.J., 1986. The Wage Price Spiral. The Quarterly Journal of Economics 101, 543-565.
- Brady, D., Ferejohn, J., Parker, B., 2022. Cognitive Political Economy: A Growing Partisan Divide in Economic Perceptions. American Politics Research 50, 3–16.
- Braitsch, H., Mitchell, J., 2022. A New Measure of Consumers' (In)Attention to Inflation. Federal Reserve Bank of Cleveland Economic Commentary.
- Branch, W., 2004. The Theory of Rationally Heterogeneous Expectations: Evidence from Survey Data on Inflation Expectations. Economic Journal 114, 592–621.
- Burke, M.A., Ozdagli, A., 2023. Household Inflation Expectations and Consumer Spending: Evidence from Panel Data. Review of Economics and Statistics 105, 948–961.
- Caporale, T., Grier, K.B., 2005. Inflation, Presidents, Fed Chairs, and Regime Shifts in the U.S. Real Interest Rate. Journal of Money, Credit, and Banking 37, 1153–1163.
- Cerrato, A., Gitti, G., 2024. Inflation Since COVID: Demand or Supply. Manuscript.
- Coibion, O., Georgarakos, D., Gorodnichenko, Y., Kenny, G., Weber, M., 2024. The Effect of Macroeconomic Uncertainty on Household Spending. American Economic Review 114, 645–677.
- Coibion, O., Georgarakos, D., Gorodnichenko, Y., Van Rooij, M., 2023. How Does Consumption Respond to News About Inflation? Field Evidence From a Randomized Control Trial. American Economic Journal: Macroeconomics 15, 109–152.
- Coibion, O., Gorodnichenko, Y., Kumar, S., 2018. How Do Firms Form Their Expectations? New Survey Evidence. American Economic Review 108, 2671–2713. URL: https://ideas.repec.org/a/aea/aecrev/v108y2018i9p2671-2713.html.
- Coibion, O., Gorodnichenko, Y., Kumar, S., Ryngaert, J., 2021. Do You Know That I Know That You Know...? Higher-Order Beliefs in Survey Data. The Quarterly Journal of Economics 136, 1387–1446.
- Coibion, O., Gorodnichenko, Y., Ropele, T., 2020a. Inflation Expectations and Firm Decisions: New Causal Evidence. The Quarterly Journal of Economics 135, 165–219.
- Coibion, O., Gorodnichenko, Y., Weber, M., 2020b. Political Polarization and Expected Economic Outcomes. Manuscript.
- Coibion, O., Gorodnichenko, Y., Weber, M., 2022. Monetary Policy Communications and Their Effects on Household Inflation Expectations. Journal of Political Economy 130, 1537–1584.
- Crump, R.K., Eusepi, S., Tambalotti, A., Topa, G., 2022. Subjective Intertemporal Substitution. Journal of Monetary Economics 126, 118-133.
- D'Acunto, F., Hoang, D., Weber, M., 2022. Managing Households' Expectations with Unconventional Policies. Review of Financial Studies 35, 1597-1642. URL: https://ideas.repec.org/a/oup/rfinst/v35y2022i4p1597-1642..html.
- D'Acunto, F., Malmendier, U., Weber, M., 2023. What Do the Data Tell Us About Inflation Expectations?, in: Handbook of Economic Expectations. Elsevier, pp. 133–161.
- Dräger, L., Lamla, M.J., Pfajfar, D., 2016. Are Survey Expectations Theory-Consistent? The Role of Central Bank Communication and News. European Economic Review 85, 84–111.
- Dräger, L., Nghiem, G., 2021. Are Consumers' Spending Decisions In Line With a Euler Equation? Review of Economics and Statistics 103, 580–596.
- Drew Desilver, 2022. The Polarization in Today's Congress Has Roots that Go Back Decades. Technical Report. URL: https://www.pewresearch.org/short-reads/2022/03/10/the-polarization-in-todays-congress-has-roots-that-go-back-decades/.
- Duca-Radu, I., Kenny, G., Reuter, A., 2021. Inflation Expectations, Consumption and the Lower Bound: Micro Evidence from a Large Multi-Country Survey. Journal of Monetary Economics 118, 120-134. URL: https://ideas.repec.org/a/eee/moneco/v118y2021icp120-134.html, doi:10.1016/j.jmoneco.2020.03.
- D'Acunto, F., Hoang, D., Paloviita, M., Weber, M., 2023. IQ, Expectations, and Choice. The Review of Economic Studies 90, 2292-2325.
- Farhart, C.E., Struby, E., 2024. Inflation Expectations and Political Ideology: Evidence from the Cooperative Election Study. Manuscript.
- Fitzgerald, T., Jones, C., Kulish, M., Nicolini, J.P., Forthcoming. Is There a Stable Relationship between Unemployment and Future Inflation? American Economic Journal: Macroeconomics.
- Galashin, M., Kanz, M., Perez-Truglia, R., 2020. Macroeconomic Expectations and Credit Card Spending. NBER Working Papers 28281. URL: https://ideas.repec.org/p/nbr/nberwo/28281.html.
- Gerber, A.S., Huber, G.A., 2009. Partisanship and Economic Behavior: Do Partisan Differences in Economic Forecasts Predict Real Economic Behavior? American Political Science Review 103, 407–426.
- Gillitzer, C., Prasad, N., Robinson, T., 2021. Political Attitudes and Inflation Expectations: Evidence and Implications. Journal of Money, Credit and Banking 53, 605–634.
- Goldsmith-Pinkham, P., Sorkin, I., Swift, H., 2020. Bartik Instruments: What, When, Why, and How. American Economic Review 110, 2586–2624.
- $Hajdini, I., 2023. \ Trend\ inflation\ and\ implications\ for\ the\ phillips\ curve.\ Federal\ Reserve\ Bank\ of\ Cleveland\ Economic\ Commentary\ 2023-07\ .$
- Hajdini, I., Knotek II, E.S., Leer, J., Pedemonte, M., Rich, R.W., Schoenle, R.S., 2022. Low Passthrough from Inflation Expectations to Income Growth Expectations: Why People Dislike Inflation. Working Paper 22-21. Federal Reserve Bank of Cleveland.
- Hazell, J., Herreno, J., Nakamura, E., Steinsson, J., 2022. The Slope of the Phillips Curve: Evidence from U.S. States. Quarterly Journal of Economics 137, 1299–1344.
- Jiang, J.H., Kamdar, R., Lu, K., Puzzello, D., 2024. How do Households Respond to Expected Inflation? An Investigation of Transmission Mechanisms. Manuscript.
- Kamdar, R., Ray, W., 2023. Polarized Expectations, Polarized Consumption. Manuscript.
- Kay, B., Ryngaert, J., Lakdawala, A., Futch, M., 2024. Partisan Bias in Professional Macroeconomic Forecasts. Manuscript.
- Kumar, A., Orrenius, P., 2016. A Closer Look at the Phillips Curve Using State Level Data. Journal of Macroeconomics 47, 84-102.
- Lamla, M., Maag, T., 2012. The Role of Media for Inflation Forecast Disagreement of Households and Professional Forecasters. Journal of Money, Credit and Banking 7, 1325–1350.

Lamla, M.J., Vinogradov, D.V., 2019. Central Bank Announcements: Big News for Little People? Journal of Monetary Economics 108, 21–38.
Larsen, V.H., Thorsrud, L.A., Zhulanova, J., 2021. News-Driven Inflation Expectations and Information Rigidities. Journal of Monetary Economics 117, 507–520.

Malmendier, U., Nagel, S., 2016. Learning from Inflation Experiences. The Quarterly Journal of Economics 131, 53-87.

Mankiw, N.G., Reis, R., 2007. Sticky Information in General Equilibrium. Journal of the European Economic Association 5, 603-613.

Mark Murray and Alexandra Marquez, 2023. Here's What's Driving America's Increasing Political Polarization: Historical Look by NBC News Poll Shows How and Why Political Divisions Are Growing. Technical Report. URL:

https://www.nbcnews.com/meet-the-press/meetthepressblog/s-s-driving-americas-increasing-political-polarization-rcna89559. McGrath, M., 2017. Economic Behavior and the Partisan Perceptual Screen. Quarterly Journal of Political Science 11, 363-383.

Mian, A., Sufi, A., Khoshkhou, N., 2023. Partisan Bias, Economic Expectations, and Household Spending. The Review of Economics and Statistics 105, 493–510

Mishkin, F., 2007. Inflation dynamics. International Finance 10, 317-334.

Mitchell, J., Zaman, S., 2023. The Distributional Predictive Content of Measures of Inflation Expectations. Federal Reserve Bank of Cleveland Working Paper.

Pedemonte, M.O., Toma, H., , Verdugo, E., 2023. Aggregate Implications of Heterogeneous Inflation Expectations: The Role of Individual Experience. Federal Reserve Bank of Cleveland Working Paper Series .

Pew Research Center, 2014. Political Polarization in the American Public. Technical Report. URL: https://www.people-press.org/2014/06/12/political-polarization-in-the-american-public/.

Pfajfar, D., Santoro, E., 2008. Asymmetries in Inflation Expectation Formation Across Demographic Groups. CWPE 0824.

Pilossoph, L., Ryngaert, J.M., 2022. Job Search, Wages, and Inflation. Manuscript.

Prior, M., Sood, G., Khanna, K., et al., 2015. You Cannot be Serious: The Impact of Accuracy Incentives on Partisan Bias in Reports of Economic Perceptions. Quarterly Journal of Political Science 10, 489–518.

Roth, C., Wohlfart, J., 2020. How Do Expectations about the Macroeconomy Affect Personal Expectations and Behavior? The Review of Economics and Statistics 102, 731-748. URL: https://EconPapers.repec.org/RePEc:tpr:restat:v:102:y:2020:i:4:p:731-748. Shapiro, A., 2022. How Much Do Supply and Demand Drive Inflation? FRBSF Economic Letter.

Stantcheva, S., 2024. Why do we dislike inflation? Brookings Papers on Economic Activity .

Stuart, M.D., Wang, J., Willis, R.H., 2021. CEO Partisan Bias and Management Earnings Forecast Bias. Manuscript.

Vellekoop, N., Wiederholt, M., 2019. Inflation Expectations and Choices of Households. SAFE Working Paper .

Weber, M., Candia, B., Ropele, T., Lluberas, R., Frache, S., Meyer, B.H., Kumar, S., Gorodnichenko, Y., Georgarakos, D., Coibion, O., Kenny, G., Ponce, J., 2023. Tell Me Something I Don't Already Know: Learning in Low and High-Inflation Settings. NBER Working Paper.

Weber, M., D'Acunto, F., Gorodnichenko, Y., Coibion, O., 2022. The Subjective Inflation Expectations of Households and Firms: Measurement, Determinants, and Implications. Journal of Economic Perspectives 36, 157-184. URL: https://ideas.repec.org/a/aea/jecper/v36y2022i3p157-84.html, doi:10.1257/jep.36.3.157.

Werning, I., 2022. Expectations and the rate of inflation. NBER Working Paper .

York, J., 2023. Do Household Inflation Expectations Respond to Macroeconomic Data Releases? Manuscript.