# Inflation expectations and political polarization: evidence from the Cooperative Election Study

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**Abstract**

Using a unique, nationally representative survey from the 2022 midterm elections, we investigate the partisan divide in beliefs about inflation. Party identity is predictive of inflation forecasts, as well as stated beliefs about recent inflation and the Federal Reserve's long-run inflation target. After conditioning on those two variables, the partisan gap in forecasts is about half of the unconditional average difference between Democrats and Republicans. We find that the difference in reported forecasts conditional on nowcasts and long-run beliefs is driven by respondents who have high levels of knowledge about politics and lower levels of (generalized) trust in others. Our findings are consistent with the literature in political psychology that examines the endorsement of conspiracy theories and political misinformation, and imply a sizable portion of the partisan divide in inflation forecasts is attributable to strategic responses to forecast surveys.

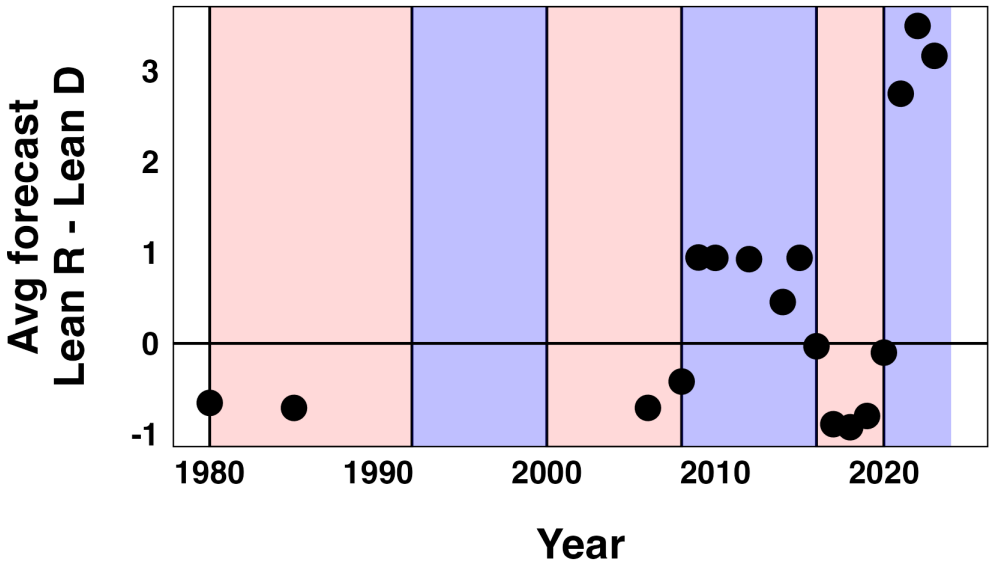


Figure 1: Difference in mean 12 month inflation expectations. Difference is calculated as the mean forecast of respondents who lean towards the Republican party minus the mean forecast of respondents who lean towards the Democratic party. Shading indicates party of the President (red indicating Republican). Data is from the Michigan Survey of Consumers.

# 1 Introduction

Household surveys of forecasts and sentiment are an important source of information for economists interested in testing theories of cognition and forward looking decision making, and for policymakers seeking to understand the impacts of their policies and the state of the economy. However, "noneconomic" factors – such as partisan attitudes – may influence survey responses, which complicates their interpretation. For example, Curtin (2018) notes that a significant and persistent partisan divide opened in the in the University of Michigan Survey of Consumers after the 2016 Presidential election. Figure 1 shows that the average inflation forecast among Democrats in the Michigan survey is higher than that of Republicans when a Republican controls the presidency, and vice-versa. Brady et al. (2022) and Mian et al. (2023) note a similar divide in Gallup data. Kay et al. (2023) show that professional forecasts from the Wall Street Journal who are affiliated with one of the major parties systematically adjust their forecasts across Presidential administrations. The influence of

partisanship on inflation forecasts may reflect an important deviation from full information rational expectations or differences in expected policies. Either of these explanations would might imply partisans will alter their behavior as a result of changes in the party in power. An alternative is that the partisan divide is "expressive" – respondents use the survey to endorse or criticize the party in power or express feelings about election outcomes. Although the effects of elections on measures of sentiment are clear, there is mixed evidence about whether election-induced changes in sentiment affect *actual* spending. For instance, Gerber and Huber (2009) find that partisans tend to be more optimistic when their party is in power, and shifts in optimism after presidential elections are associated with higher spending. However, McGrath (2017) argues Gerber and Huber's result is driven by an outlier in their sample. Mian et al. (2023) document a sizable partisan shift in inflation expectations around the 2008 and 2016 US Presidential elections, but find no evidence that higher Republican vote share after the 2016 election is associated with actual changes in spending. By contrast, Kamdar and Ray (2023) argue that a measure of sentiment constructed from the Michigan survey is persistent within households, negatively correlated across partisans, and shifts in response to elections and other political events. Using Nielsen data, they find consumption grew for Republicans relative to Democrats after the the 2016 Presidential election, but not vice-versa in 2020.

In this paper, we investigate the partisan divide in inflation forecasts. We examine whether the difference in forecasts between partisans is driven by beliefs about past and long-term inflation, as predicted by noisy information models (e.g., Lucas (1972); Woodford (2003); Coibion and Gorodnichenko (2012); Bordalo et al. (2020); Patton and Timmermann (2010)) or if it matters independent of those beliefs. Understanding the answer to this question is important because if partisanship is *correlated* with nowcasts and long-run beliefs, regressions of near-term forecasts on party identity alone may suffer from an omitted variable problem. Moreover, our interpretation of the partisan divide hinges on whether partisanship matters (solely) because of its relationship to this signal extraction problem – in which case,

partisanship could matter because of different signals observed by different partisans, for instance – versus party lean playing an independent role. To the extent partisanship matters after conditioning on other beliefs about inflation, it may be evidence that (a portion of) the divide observed in Figure 1 is "expressive" partisan cheerleading. A mix of "genuine" and "expressive" behavior could explain the mixed evidence of partisan sentiment-induced economic behavior found in the literature, while remaining consistent with experimental evidence that changes in inflation expectations affect household spending behavior (Coibion et al. (2019)).

We use a unique cross-sectional data set from the 2022 round of the Cooperative Election Study (CES), a nationally representative survey of US households prior to and following the 2022 midterm elections. This survey contains a large set of questions about personal identity, demographic characteristics, and political and social beliefs. As part of our survey module, we ask respondents to provide a *nowcast* of inflation (the inflation rate over the past twelve months), a *forecast* over the next twelve months, and their beliefs about the Federal Reserve's long-run inflation target. Alongside these questions, we have a range of demographic and economic characteristics of respondents, and information about their social beliefs. In particular, we have much more detail about social and political views relative to the Michigan Survey of Consumers (which asks only about partisan lean) or the the Federal Reserve Bank of New York's Survey of Consumer Expectations (SCE) (which does not include respondents' political attitudes). This allows for a richer examination of the association between social attitudes and inflation forecasts than is possible in existing surveys.

Our data implies a similar unconditional partisan divide in forecasts as the contemporaneous Michigan survey. We also find smaller, but still sizable, differences across parties in reported beliefs about nowcasts and the Federal Reserve's long-run inflation target. Nowcasts and the inflation target alone explain about 53% of the variation of forecasts in our sample, and additional demographic and economic controls play only a small role in explaining

forecasts conditional on nowcasts and long run beliefs. In other words, the effects of demographics, education, and economic variables is largely summarized in other inflation beliefs. But all of these additional covariates reduces the partisan gap between inflation forecasts by less than half. In other words, partisanship-*qua*-partisanship seems to matter for inflation forecasts, above and beyond the information encoded in nowcasts, long-run forecasts, and variables like income, age, gender, education, employment status, and race.

The additional detail in our survey allows us to investigate the nature of the partisan divide further than is possible using data from the Michigan survey or SCE. In particular, we draw on the political psychology literature studying the endorsement of misinformation. Miller et al. (2016) show that high-knowledge, low-trust partisans who are on the losing side of politics are most likely to endorse political conspiracy theories (i.e., about former President Obama's birthplace). Although beliefs about the likely rate of inflation are qualitatively quite different than the beliefs studied by Miller et al., we find a similar pattern for inflation forecasts. We ask respondents to answer a set of political knowledge questions, and find politically knowledgeable partisans express different beliefs than their counterparts in the opposite party, while uniformed partisans do not. To be specific: our sample implies, unconditionally, that Republicans forecast inflation 3.25% higher than Democrats prior to the 2022 midterm elections. After conditioning on demographic and economic controls, that difference shrinks to 2.95%, and conditional on nowcasts and long-run beliefs, the residual difference is 1.76%. Republicans who display the highest level of political knowledge would be expected to forecast inflation 2.5% higher than an otherwise identical Democrat, while a Republican who answered zero knowledge questions correctly is predicted to forecast inflation 0.9% *lower* than a Democrat, all else equal. The difference is statistically significant for informed partisans, but not uninformed partisans.

Furthermore, trust affects how knowledge is reflected in forecast differences. Knowledgeable partisans who are high trust give forecasts that are statistically indistinguishable from one another (although the point estimates are positive). In other words, the interaction

between low levels of trust *and* high political knowledge seems to be driving the relationship between partisan identity, knowledge, and forecasts. This is consistent with the "residual" portion of the partisan gap being driven by strategic, expressive motives.

We are not the first to suggest survey responses may be strategic, but much of that literature has focused exclusively on professional forecasts. Croushore (1997) notes forecasters may have competing incentives to remain close to the consensus, or to make bold predictions and stand out. Ottaviani and Sørensen (2006) develop game-theoretic models of forecaster behavior to rationalize either of those tendencies. Broer and Kohlhas (2022) and Valchev and Gemmi (2023) study combinations of strategic and behavioral assumptions that can rationalize patterns of under- and overreaction to public and idiosyncratic information. In contrast to these papers, we focus on households. Households' beliefs matter for their consumption, labor, and savings decisions, and for assessing policy. Hence, it is important to understand what may motivate a partisan divide in forecasts to aid in their interpretation. Since the considerations proposed by Ottaviani and Sørensen and others do not directly apply to household surveys, we draw on related evidence from political science and psychology to interpret the strategic behavior of household survey respondents.

Our paper adds to the literature on the partisan divide in U.S. inflation expectations.[1] Binder (2023) finds the partisan spread in consumer inflation forecasts reverses around Presidential elections (with partisans of the party in the White House tending to believe inflation will be lower in the future) and that the gap in inflation expectations by party (and by

[1]The centrality of forward-looking behavior in dynamic economic theory has given rise to a large literature on economic expectations in general, particularly, expected inflation. Coibion et al. (2018), Weber et al. (2022), Bordalo et al. (2022), Weber (2022), and D'Acunto et al. (2023) provide extensive reviews. In general, the literature has found that forecast surveys are informative for understanding firms' investment behavior (e.g. Gennaioli et al. (2016)) and the evolution of realized inflation (Coibion and Gorodnichenko (2015)). Evidence from randomized controlled trials also suggests that changes in inflation expectations cause changes in household spending (Coibion et al. (2019)) and in firms' behavior (Coibion et al. (2020a)).

Given the difficulty of reconciling forecast surveys with full information rational expectations, there are a number of alternatives that emphasize the importance of cognitive constraints on beliefs and behavior. Examples include rational inattention (Sims (1998, 2003); Maćkowiak et al. (2021)), "sticky" information (Mankiw and Reis (2002)), signal extraction (e.g., Coibion and Gorodnichenko (2012)), and diagnostic expectations (Bordalo et al. (2022)). Nimark and Sundaresan (2019), in particular, show that under certain formulations of rational inattention, the information agents will choose to observe is likely to reinforce their prior beliefs.

partisan intensity) has widened over time. Gillitzer et al. (2021) show that independent of gender, age, and income, partisans in the United States and Australia tend to forecast lower inflation when their party is in control. Bachmann et al. (2021) find that a quarter of the difference in inflation expectations across states in the SCE is explained by partisan leanings of the state relative to the party of the President. Coibion et al. (2020b) conduct a survey of voters prior to the 2020 Presidential election and find that voters were polarized by party both in terms of who they expected to win the election and the predicted outcome for the economy conditional on the outcome. More recently, Binder et al. (2024) use data from the Michigan survey during the COVID-19 pandemic and document a sizable partisan divide, and argue that there is evidence of de-anchoring of Republicans' (but not Democrats') inflation expectations. By contrast, using indirect partisanship data at the zip code level from the SCE, Aidala et al. (2024) find evidence of a partisan divide and increased uncertainty, but not of de-anchoring. These two papers take advantage of the panel nature of their data and debate the macroeconomic consequences of the partisan divide in forecasts for the Phillips Curve.

While this set of papers documents a partisan divide and some of its correlates, we focus on understanding the role of social, political, and ideological characteristics on inflation expectations. Binetti et al. (2024), using an online survey in the spring of 2024, documents partisan differences in the causes and consequence of inflation; our survey is more detailed on social, political, and ideological characteristics (which we argue influences the role of partisanship, in line with the political psychology literature).

The next section describes our survey and compares the expectations we elicit to other contemporaneous surveys. Following that, Section 3 establishes our empirical framework and shows partisanship matters both for elements of households' signal extraction problem and beyond it. Section 4 shows that the role of partisanship in inflation expectations is influenced by political knowledge and trust and discusses the implications of that finding. We then conclude.

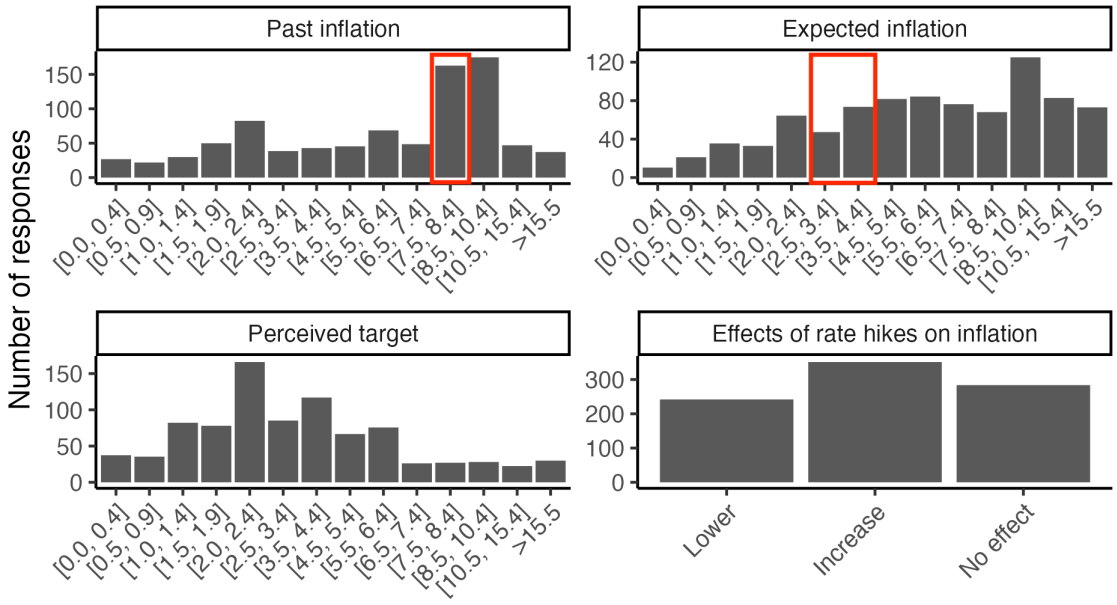


Figure 2: Histogram of responses to survey questions about inflation and monetary policy. The text of the questions are reported in Appendix A. Ex-post correct bins for forecasts are boxed.

# 2 Inflation expectations in the Cooperative Election Survey

Our data is part of a module from the Cooperative Election Study (formerly the Cooperative Congressional Elective Survey) (Schaffner et al. (2023)). The CES is a nationally representative survey of adults administered by YouGov, a public opinion and data firm. Our module includes one thousand respondents in the pre-election wave, although some of them are dropped due to non-response to particular questions. The specific questions in the module we used to elicit beliefs about inflation and monetary policy are included in Appendix A. In Appendix A, we also report some additional raw results and cross-tabulations of responses. Histograms of the raw responses are shown in Figure 2.

The forecasts we elicit are quantitatively similar to other surveys conducted at the same time. We convert CES responses to the question about inflation expectations to numerical responses by using the midpoints of the bins (except for the top bin, which is top coded at

| | Survey | Range | Mean | Median | Std. Dev | IQR |
|---|---|---|---|---|---|---|
| Point forecast | CES | [0.2, 15.5] | 6.82 | 5.95 | 4.25 | [3.95, 9.45] |
| | Michigan, Oct 2022 | [-10, 50] | 7.3 | 5.00 | 9.59 | [1.9, 9.9] |
| | Michigan, Nov 2022 | [-10, 50] | 7.3 | 5.00 | 10.58 | [2, 9.7] |
| | SPF, 4Q 2022 | [1.71, 7.06] | 3.67 | 3.35 | 1.21 | [3.06, 3.85] |
| | SCE, Sept 2022 | [-80, 100] | 8.19 | 7.00 | 15.32 | [3, 10] |
| | SCE, Oct 2022 | [-55, 100] | 8.96 | 8.00 | 16.81 | [4, 10] |

Table 1: Comparison of point forecasts of expected 12 month change in consumer prices. CES responses are converted to numeric score by taking midpoint of bin. Summary statistics are calculated using individual responses weighted by survey weights. Data for the Michigan survey is taken from Table 32 of the historical data tables reported by the Survey of Consumers as of September 2024.

15.4%), and compare those responses to the price expectations question from the October and November rounds of the Michigan Consumer Survey, the SCE from September and October, and the 4th quarter Survey of Professional Forecasters. Numerical features of the distributions are reported in Table 1 and raw responses are plotted in Figure 3. As a result of top and bottom coding of our bins, the overall range and standard deviation in our responses is smaller, but the median, mean, and interquartile range of our survey are broadly similar to the Michigan survey and SCE, despite the coarseness of our bins.[2] Professional forecasters' implied inflation expectations were much lower than those of household surveys; the 75th percentile of the SPF is well below the median for all of the household surveys. The standard deviation of SPF forecasts is barely a quarter of the next-least dispersed household forecast. This is consistent with the qualitative comparison of household and professional forecasts reported in Weber et al. (2022).

[2]To be explicit, a reasonable criticism of the CES survey bins is that they do not allow for forecasts of negative inflation because the lowest bin starts at zero. This bottom coding could be a concern. In practice, however, we think this concern is limited. First, very few respondents report a belief that prices have decreased over the past year in a qualitative sense. Second, for our main result, the object of interest is the spread between the forecasts of partisans, and we show that this spread is essentially the same for our survey and the Michigan survey despite the more restrictive limits on the distribution of responses. Finally, if there were a large mass of respondents who had deflationary beliefs, we might expect to see bunching at the lowest bin; we do not observe such bunching.

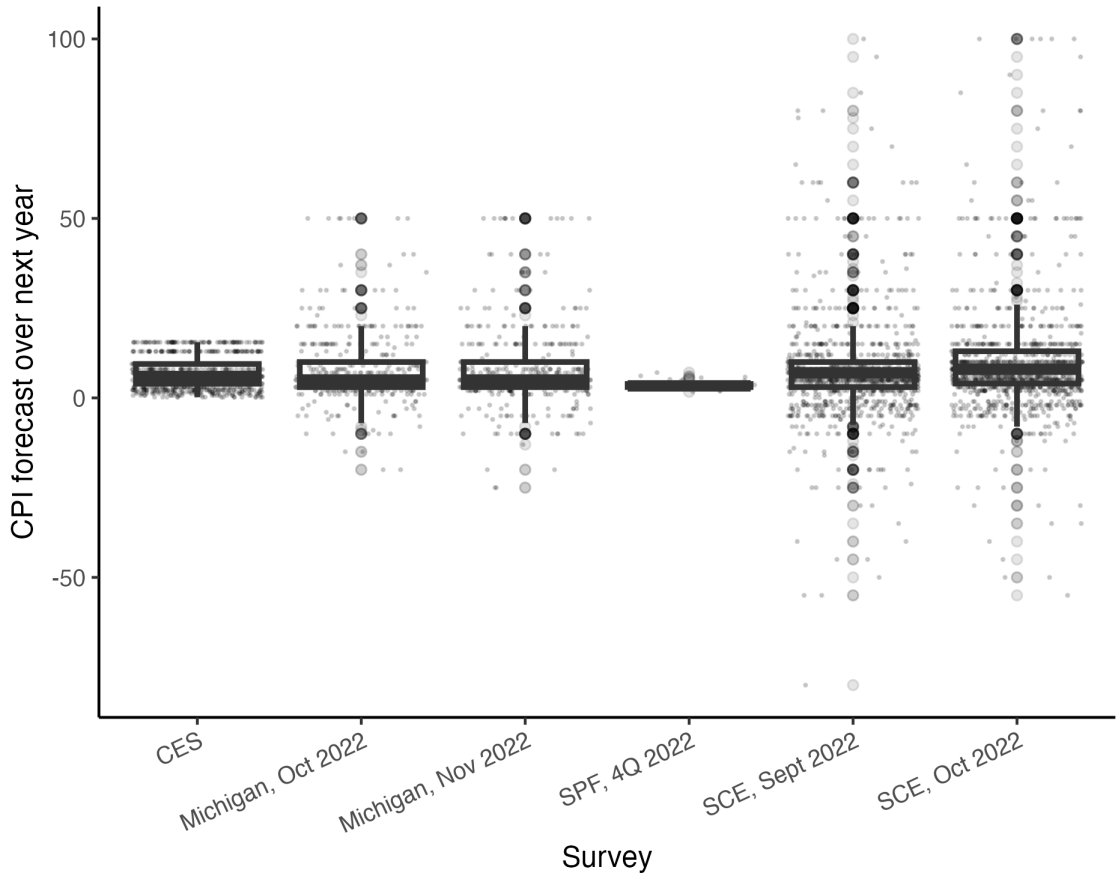


Figure 3: Comparison of survey forecasts for 12 month consumer price changes with overlapping survey windows. CES responses are from September 29-November 8. University of Michigan, Survey Research Center (2022) ("Michigan") dates are September 28-October 24 (October survey) and October 26 to November 19 (November survey). For the Michigan survey, individuals who reported "Don't know" are dropped Survey of Professional Forecasters (SPF) dates are October 27 to November 8. SCE responses are from throughout the survey month.

# 3 Partisanship and inflation (past, present, and future)

We showed in the last section that our survey captures a set of inflation expectations that is similar to other contemporaneous household surveys. In this section, we take a first pass at the partisan divide in inflation expectations. We show that there are (unconditional) partisan differences in inflation forecasts, as well as perceptions of price changes in the past twelve months and the long-run inflation target. A simple signal-extraction model implies that these three variables are related; we show that in the cross-sectional regression implied by that model, the "residual" partisan divide is smaller, but still sizable.

Table 2 reports the results of projecting respondents' point estimates of inflation forecasts, their beliefs about inflation over the past twelve months, and their beliefs about the long-run inflation target onto our measure of political party. The excluded category in these regressions is Democrat, so the coefficients on the other variables are interpretable as the difference relative to Democrats. Notably, Republicans in our sample (unconditional on other variables) forecast inflation that is about 3.25% higher, on average, than the average Democrats. They also report that past inflation was 1.8% higher, and that the Fed's average inflation target is about 87 basis points higher.[3] All of these differences are significant at the 99% level. The difference between Republicans' and Democrats' forecasts are very similar between the CES and the Michigan survey in 2022 displayed in figure 1 (3.49%).

Of course, the fact that Republicans report higher past inflation and higher forecasts could be related. If, for example, Republicans live in higher-cost areas, they may have experienced higher inflation in the recent past, and differences in forecasts could arise from disagreement about the current state of the world. Interestingly, the difference is wider for *forecasts* than perceptions about past inflation. This implies that (without conditioning on other information) Republicans report a belief that inflation would get *worse*, and Democrats (on average) believed it would decelerate (but remain elevated). In other words, there is

[3]We note that, on average, Republicans and Democrats reported a belief that the Federal Reserve's target was markedly higher than the 2% the FOMC states as the level consistent with price stability.

Table 2: Responses to questions about inflation by political lean

| | Forecast | Past inflation | Inflation target |
|---|---|---|---|
| Republican | 3.249*** | 1.829*** | 0.872*** |
| | (0.377) | (0.370) | (0.315) |
| Independent | 1.902*** | 1.049* | 0.629 |
| | (0.632) | (0.573) | (0.489) |
| Not sure party | -1.258 | -1.723* | 1.266 |
| | (1.226) | (0.897) | (1.448) |
| Constant | 5.397*** | 5.690*** | 3.573*** |
| | (0.215) | (0.223) | (0.197) |
| N | 911 | 911 | 911 |
| R2 | 0.13 | 0.06 | 0.02 |
| R2 Adj. | 0.13 | 0.05 | 0.01 |
| F | 26.67 | 10.81 | 2.81 |

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

Heteroskedasticity-robust standard errors shown in parentheses. Partisan categories (Republican, Democrat (excluded category), Independent) obtained by consolidating self-identified partisan lean, including "Lean" and "not very strong" Democrats and Republicans as partisans of those respective parties; "Not sure party" indicates the respondent answered "Not sure" or "Don't know" about which party they leaned towards.

partisan disagreement about both the "base" level of inflation and its trajectory.

**Signal extraction models and forecasts** The results in Table 2 are atheoretical. But theories of expectation formation link near-term forecasts, past inflation, and long-run beliefs. Concretely, if inflation follows a stationary AR(1) process, models of signal extraction (e.g., Bayesian signal extraction in Coibion and Gorodnichenko (2012) or diagnostic expectations as in Bordalo et al. (2020)) imply agent $i$'s belief about current inflation $\widetilde{\pi}_{it}$ is a function of their prior belief based on their conditional expectation formed using their previous information set $\Omega_{i,t-1}$ and the news in their signals $s_{it}$:

$$\widetilde{\pi}_{it} = E(\pi_t|\Omega_{it-1}) + \widetilde{\kappa}(s_{it} - E(s_{it}|\Omega_{it-1})) \tag{1}$$

The parameter $\widetilde{\kappa}$ captures the degree to which news causes them to update their belief about inflation at time $t$ relative to their previous belief. This parameter captures the precision of their signals and/or the degree of "diagnosticity" (overweighting of new information).

Following Patton and Timmermann (2010), we may want to allow for the possibility a forecaster anchors her expectations on a (possibly idiosyncratic) long-run average value of $\pi$, $\bar{\pi}_i$. Her forecast, therefore, takes the form of a shrinkage estimator where the degree of shrinkage is governed by a parameter $\omega$:[4]

$$\widetilde{\pi}_{it+1|t} = \omega\bar{\pi}_i + (1-\omega)\rho\widetilde{\pi}_{it} \tag{2}$$

Equation (2) characterizes our model of the cross section of near term inflation forecasts. For the remainder of the paper, we focus on estimates of regressions implied by (2):

$$\widetilde{\pi}_{i,t+1|t} = \beta_0 + \beta_1\bar{\pi}_i + \beta_2\widetilde{\pi}_{it} + \boldsymbol{\gamma}'\mathbf{X_{it}} + \varepsilon_{it} \tag{3}$$

[4]In the Patton and Timmermann (2010) setup, this parameter is a function of the expected mean square error of the agents' forecast and an exogenous parameter that governs the strength of the long-run prior. While the distinction is important for their application, we adopt the more reduced form here for simplicity.

Here, $\mathbf{X_{it}}$ is a vector of additional controls. The strongest interpretation of the theory outlined above implies the joint hypothesis that $\beta_0 = 0$ and $\boldsymbol{\gamma}' = 0$. The reason is that individual characteristics – age, differences in media diet, quantitative sophistication, and other facets of demographic and political identity – may impact the history of signals observed by agents, but those effects should be subsumed in beliefs about current inflation or priors about the long run. This is true even if agents are "behavioral" in the sense of suboptimally over-emphasizing recently-observed signals.

As mentioned above, the theory implies the role of partisanship in *forecasts* observed in Table 2 may be attributable to an omitted variable problem: systematic differences in beliefs about past inflation (or long-run inflation expectations), are correlated with partisanship but omitted the estimates reported in column (1) of the table. Partisans may have different beliefs about the long run (or about the recent past) and make forecasts accordingly, so that the partisan divide in forecasts is actually a partisan divide in signals or priors.

Table 3 shows that the partisan divide is still significant after conditioning on other information. Column (1) of reproduces the first column of Table 2, and table (2) adds a set of demographic and economic controls. These controls shift predicted inflation somewhat; all else equal, the constant in the regression (capturing the excluded category of Democrat) drops by about 1.3%. However, the conditional expected *difference* between forecasts of Democrats and Republicans only declines by 0.3%. This suggests that, while the additional controls help explain inflation forecasts, controlling for those characteristics has relatively modest effects on the estimated difference between partisans.

Column (3) removes the party indicator and estimates a version of (3) without any additional controls. The sum of the coefficients is close to 1, consistent with a (perceived) autoregressive coefficient on inflation close to 1 (applying equation (2)). Although the exact time series process for inflation is debated in the literature, a unit root forecast often performs quite well (Atkeson and Ohanian (2001); Stock and Watson (2008)). In other words, our model-consistent benchmark does not imply that the survey respondents have *prima facie*

Table 3: Cross-sectional forecasting regressions and partisan lean

| | (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|---|
| Past inflation | | | 0.672*** | 0.622*** | 0.624*** |
| | | | (0.045) | (0.044) | (0.045) |
| Belief about long-run inflation target | | | 0.328*** | 0.317*** | 0.323*** |
| | | | (0.044) | (0.046) | (0.046) |
| Republican | 3.249*** | 2.952*** | | 1.835*** | 1.761*** |
| | (0.377) | (0.397) | | (0.295) | (0.329) |
| Independent | 1.902*** | 1.944*** | | 1.050*** | 0.997** |
| | (0.632) | (0.645) | | (0.406) | (0.423) |
| Not sure party | -1.258 | -0.873 | | -0.588 | -0.788 |
| | (1.226) | (1.334) | | (0.962) | (0.925) |
| Constant | 5.397*** | 4.039*** | 1.203*** | 0.725*** | 0.602 |
| | (0.215) | (1.122) | (0.234) | (0.244) | (0.860) |
| N | 911 | 909 | 911 | 911 | 909 |
| R2 | 0.13 | 0.18 | 0.53 | 0.56 | 0.58 |
| R2 Adj. | 0.13 | 0.16 | 0.52 | 0.56 | 0.57 |
| F | 26.67 | 7.24 | 232.84 | 100.00 | 37.55 |
| Demographic and Economic controls | No | Yes | No | No | Yes |

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

Heteroskedasticity-robust standard errors shown in parentheses. Partisan categories (Republican, Democrat (excluded), Independent) obtained by consolidating self-identified partisan lean, including "Lean" and "not very strong" Democrats and Republicans as partisans of those respective parties; "Not sure party" indicates the respondent answered "Not sure" or "Don't know" about which party they leaned towards. Specifications with "Demographic and Economic controls" include: an indicator variable for male respondent, White respondent, indicator for Hispanic, categorical variables for educational attainment, age, categorical variables for annual family income, indicator for having a child under 18, owning a home, and whether they can obtain money needed for a 400 dollar emergency expense).

unreasonable beliefs about inflation dynamics. Past inflation and the long-run target capture about half of the overall variation in forecasts.

Column (4) estimates the model in equation (3) with indicator variables for political lean as additional controls. Here, although the coefficient estimates for past and long-run inflation do not change much compared to column (2), party affiliation continues to enter significantly. All else equal, the model implies a Republican would be expected to predict inflation 1.8% higher than a Democrat would, holding fixed their nowcast and belief about the long-run inflation target. This explains slightly more than half of the otherwise unconditional difference between Republicans and Democrats in our survey. Adding the set of demographic and economic controls (column (5)) has very little effect, reducing the estimated forecast difference between otherwise identical Republicans and Democrats by less than 0.1%.

Overall, this exercise suggests that the partisan divide between Republicans and Democrats is more nuanced than the unconditional difference shown in Figure 1. Once we control for recent forecasts and beliefs about the long-run inflation target, the predicted difference between Republicans and Democrats drops by slightly less than half. That leaves an economically sizable difference of about 1.8% between otherwise identical respondents with different partisan leans. This difference in beliefs is more than twice the interquartile range of professional forecasts made at approximately the same time. Overall, nowcasts and long-run inflation are important for explaining the cross-section of forecasts, and they are significantly correlated with partisanship. But, partisanship matters in a way that extends beyond the variables included in signal extraction models, as well as demographics, education, employment status, or income.

# 4 Partisanship, knowledge, trust, and inflation expectations

In the previous section, we showed that there is a partisan divide in inflation expectations that is not attributable to differences in respondents' reported belief about recent inflation or its long-run tendency. This divide is smaller than unconditional mean differences imply, but it is quantitatively sizable. In this section, we investigate the drivers of that remaining divide, and whether it is at least partially explained by an "expressive" motive.

An influential literature in political psychology emphasizes that surveys about even "objective" questions may be influenced by partisan identity, political knowledge, and generalized trust towards others (e.g. Kahan et al. (2017); Miller et al. (2016)). That literature suggests partisans may respond differently to surveys because of a combination of partisanship and motivated reasoning. Particularly, high-knowledge partisans know the "correct" partisan answer (e.g., Democrats downplaying inflation risks when a Democrat controls the White House), so they may be more likely to state a forecast that reflects well on (or badly on) the political party in power. Low trust individuals may be more apt to let an "affective" motive overcome an "accuracy' motive when interpreting information. The combination of these two features – knowledge and trust – can influence how individuals interpret information and the beliefs they profess to hold. Indeed, the political psychology literature (Miller et al. (2016)) has found high-knowledge, low-trust individuals are more likely to endorse political misinformation in the form of conspiracy theories. In short, low-trust individuals tend to respond affectively, and high knowledge lets them to so in a strategic way.

In this section, we examine whether the motivated reasoning channel that affects the endorsement of political misinformation operates in the context of inflation surveys. As an initial characterization, we extend the regressions in Table 2 by adding a measure of trust and political knowledge. We incorporate them alongside party lean to see whether they are subsumed by party identity or play an independent role. We define "high trust" as an average

response of 2 or above on the different trust-related questions described in appendix A.2.[5] We characterize the knowledge of respondents as the number of a set of factual questions about politics and current events they answer correctly. The results are shown in Table 4. Comparing Table 2 to Table 4, it is still the case that Republicans tend to report higher values for past and future inflation and the Fed's inflation target, but political knowledge (and in the case of past inflation, trust) play a statistically significant (and economically sizable) role. For instance, according to the first column of Table 4, the difference in the predicted inflation forecast of a Republican who did not answer answer any political questions correctly and one who answered all of them correctly is nearly as large (about 2.8 percent) as the difference between a Democrat and Republican with equal levels of political knowledge (3.1 percent). Trust and political party also significantly affect perceptions about *past* inflation, with high-trust individuals expected to report inflation that is 0.88% lower than low-trust individuals, conditional on political party. Political knowledge elevates inflation forecasts and nowcasts, and significantly lowers the expected inflation target, all else equal.

Digging further, Table 5 reports the average (and standard deviation) of expected inflation among partisans, now divided into bins for low- and high-trust and political knowledge score. Again, among high-knowledge partisans, high-trust individuals report anticipating lower inflation than their low-trust counterparts. The gap between low- and high-trust individuals at a given political knowledge score is generally larger for Republicans than Democrats in our sample. These initial results suggest that partisanship, trust, and political knowledge all play a role in explaining inflation expectations.

It is possible that trust and political knowledge are proxies for other characteristics

[5]In general, *political ideology* (e.g., liberal/conservative) and party identification are correlated, but the political science literature has emphasized that they are distinct concepts; "social" polarization, tied to identity, is distinct from "issue polarization." Ideology and party identity in the United States have become more aligned over time (Mason (2015)). Table 11 displays cross-tabulations of the disaggregated party identification and the more coarse party lean variable used in our analysis with ideology scores. While those identifying with the Republican party more frequently describe themselves as (very) conservative and Democrats as (very) liberal, members of both parties self-identify as moderate and there are Republicans who describe themselves as liberal and Democrats as conservative. However, we show in Table 12 in Appendix B.1 that our results are insensitive to including ideology as a regressor in our particular sample.

Table 4: Responses to inflation questions, partisan lean, trust, and knowledge

| | Inflation forecast | Past inflation | Inflation target |
|---|---|---|---|
| Republican | 3.100*** | 1.647*** | 0.890*** |
| | (0.394) | (0.364) | (0.305) |
| Independent | 1.970*** | 1.186** | 0.499 |
| | (0.631) | (0.567) | (0.476) |
| Not sure party | -0.472 | -0.475 | 0.518 |
| | (1.255) | (0.880) | (1.534) |
| $\mathbb{I}$(High trust) | -0.797 | -0.883** | -0.117 |
| | (0.543) | (0.433) | (0.475) |
| Political knowledge (0-5) | 0.561*** | 0.847*** | -0.434*** |
| | (0.155) | (0.115) | (0.126) |
| Constant | 3.410*** | 2.629*** | 5.251*** |
| | (0.709) | (0.487) | (0.575) |
| N | 911 | 911 | 911 |
| R2 | 0.17 | 0.16 | 0.05 |
| R2 Adj. | 0.17 | 0.15 | 0.04 |
| F | 18.71 | 21.20 | 4.49 |

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

Heteroskedasticity-robust standard errors shown in parentheses. Partisan categories (Republican, Democrat (excluded), Independent) obtained by consolidating self-identified partisan lean, including "Lean" and "not very strong" Democrats and Republicans as partisans of those respective parties; "Not sure party" indicates the respondent answered "Not sure" or "Don't know" about which party they leaned towards. Trust is measured as the average response to questions about whether the Federal government, law enforcement, scientists, media, and people in general can be trusted of is on a scale of 0-3 where 0 indicates almost never and 3 indicates they can always be trusted; "High Trust" is an average score of 2 or above. "Political knowledge" is the sum of how many factual questions about government and current affairs were answered correctly by the respondent.

Table 5: Cross-tabulation of responses to questions about perception of price changes over the next year

| | | Democrat | | Republican | |
|---|---|---|---|---|---|
| | Political knowledge score | Low trust | High trust | Low trust | High trust |
| 0 | Mean | 4.1 | 2.6 | 6.0 | 2.0 |
| | SD | (4.7) | (1.2) | (4.5) | (0.9) |
| 1 | Mean | 3.9 | 5.1 | 5.9 | 4.1 |
| | SD | (2.6) | (5.5) | (4.2) | (3.9) |
| 2 | Mean | 4.7 | 6.0 | 6.7 | 10.2 |
| | SD | (3.6 | (5.7) | (5.4) | (7.5) |
| 3 | Mean | 5.2 | 4.6 | 9.4 | 5.0 |
| | SD | (4.6) | (3.4) | (4.7) | (1.4) |
| 4 | Mean | 6.3 | 5.0 | 9.4 | 9.0 |
| | SD | (3.5) | (3.2) | (4.3) | (5.2) |
| 5 | Mean | 6.0 | 5.2 | 9.6 | 7.3 |
| | SD | (2.9) | (2.7) | (3.9) | (2.3) |

that impact inflation expectations or perceptions. For example, we may be concerned that political knowledge is correlated with education. Moreover, the results in Tables 4 and 5 neglect the theoretical links between forecasts, past inflation, and the inflation target implied by equation (2). Accordingly, we integrate trust and knowledge into our more estimates of equation (3). The results are reported in Table 6.

Columns (1) of Table 6 regresses inflation forecasts on past inflation, long-run inflation, a party lean indicator, and an indicator for high trust. The coefficient on the trust is negative, confirming the general trend within parties reported shown in Table 5, although it is not statistically significant. Similarly, in column (2), we incorporate our political knowledge score. Doing so does not markedly change coefficient estimates or significance. However, in column (3), we show the results of interacting political party with political knowledge score. The indicator variable for Republican (e.g., the difference, all else equal, between the responses of a Democrat and Republican who answered none of the political knowledge questions correctly) becomes insignificant and switches sign. However, the interaction term is significant.

Table 6: Cross-sectional forecasting regressions and political lean, trust, and knowledge

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| Past inflation | 0.621*** | 0.604*** | 0.602*** | 0.601*** | 0.599*** | 0.601*** |
| | (0.045) | (0.046) | (0.046) | (0.046) | (0.047) | (0.047) |
| Belief about long-run inflation target | 0.324*** | 0.339*** | 0.351*** | 0.338*** | 0.351*** | 0.351*** |
| | (0.046) | (0.045) | (0.044) | (0.045) | (0.044) | (0.045) |
| Republican | 1.727*** | 1.753*** | -0.934 | 1.761*** | -1.100 | -1.475 |
| | (0.332) | (0.339) | (1.022) | (0.360) | (1.046) | (1.177) |
| Independent | 0.975** | 1.023** | -1.128 | 1.216*** | -0.967 | -1.355 |
| | (0.423) | (0.429) | (0.973) | (0.459) | (0.977) | (1.071) |
| Not sure party | -0.830 | -0.599 | -1.860 | -0.565 | -1.891 | -2.073 |
| | (0.924) | (0.903) | (2.992) | (0.901) | (2.999) | (3.017) |
| $\mathbb{I}$(High trust) | -0.263 | -0.239 | -0.106 | -0.053 | -0.005 | -0.777 |
| | (0.326) | (0.335) | (0.344) | (0.360) | (0.351) | (1.299) |
| Political knowledge (0-5) | | 0.203 | -0.137 | 0.208 | -0.140 | -0.179 |
| | | (0.146) | (0.198) | (0.146) | (0.197) | (0.224) |
| Republican × Political knowledge | | | 0.693*** | | 0.727*** | 0.821*** |
| | | | (0.242) | | (0.244) | (0.277) |
| Independent × Political knowledge | | | 0.577** | | 0.584** | 0.689** |
| | | | (0.267) | | (0.263) | (0.290) |
| Not sure party × Political knowledge | | | 0.317 | | 0.333 | 0.380 |
| | | | (1.116) | | (1.118) | (1.121) |
| Republican ×$\mathbb{I}$(High trust) | | | | 0.211 | 0.678 | 2.961 |
| | | | | (1.130) | (1.192) | (2.588) |
| Independent ×$\mathbb{I}$(High trust) | | | | -1.938*** | -1.980** | 1.462 |
| | | | | (0.738) | (0.799) | (1.545) |
| Political knowledge ×$\mathbb{I}$(High trust) | | | | | | 0.195 |
| | | | | | | (0.310) |
| Republican × Knowledge Score ×$\mathbb{I}$(High trust) | | | | | | -0.753 |
| | | | | | | (0.671) |
| Independent × Knowledge Score ×$\mathbb{I}$(High trust) | | | | | | -0.936** |
| | | | | | | (0.399) |
| Constant | 0.639 | 0.210 | 1.379 | 0.072 | 1.253 | 1.386 |
| | (0.867) | (0.930) | (1.049) | (0.936) | (1.047) | (1.093) |
| N | 909 | 909 | 909 | 909 | 909 | 909 |
| R2 | 0.58 | 0.58 | 0.59 | 0.58 | 0.59 | 0.60 |
| R2 Adj. | 0.57 | 0.57 | 0.58 | 0.57 | 0.58 | 0.58 |
| F | 35.35 | 39.89 | 39.73 | | | |
| Demographic and Economic controls | Yes | Yes | Yes | Yes | Yes | Yes |

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

Heteroskedasticity-robust standard errors shown in parentheses. Partisan categories (Republican, Democrat (excluded), Independent) obtained by consolidating self-identified partisan lean, including "Lean" and "not very strong" Democrats and Republicans as partisans of those respective parties; "Not sure party" indicates the respondent answered "Not sure" or "Don't know" about which party they leaned towards. Trust is measured as the average response to questions about whether the Federal government, law enforcement, scientists, media, and people in general can be trusted of is on a scale of 0-3 where 0 indicates almost never and 3 indicates they can always be trusted; "High Trust" is an average score of 2 or above. "Political knowledge" is the sum of how many factual questions about government and current affairs were answered correctly by the respondent. Specifications with "Demographic and Economic controls" include: an indicator variable for White respondent, indicator for Hispanic, categorical variables for educational attainment, age, categorical variables for annual family income, indicator for having a child under 18, owning a home, and whether they can obtain money needed for a 400 dollar emergency expense).

In other words, Republicans with higher political knowledge report higher expected inflation than Republicans with low political knowledge, all else equal. This is broadly consistent with our earlier observations based on Table 5. Column (4) replaces this interaction terms with interactions between the trust indicator and party affiliation, and column (5) incorporates both; Republican party lean alone is only significant in specifications where we ignore the interaction between party affiliation and political knowledge (as seen by comparing columns (4) and (5)). Finally, column (6) incorporates a triple interaction between party affiliation, political knowledge, and trust. In and of itself, the triple interaction term is insignificant. However, the estimated *marginal* effects, shown in 4, confirm the broad intuition from Table 5. The figure shows differences between predicted inflation forecasts implied by column (2) (the top panel) and (6) (bottom panel). In the top panel, the predicted inflation forecast of two identical respondents with different party affiliations and levels of knowledge are shown. For low-knowledge partisans, the predicted difference in forecasts are indistinguishable from zero. The difference becomes significant for higher-knowledge partisans. In the bottom panel, we examine the triple interaction. Marginal effects of increasing knowledge are separately shown for low-trust (left) and high-trust (right) partisans. High-trust Republican and Democrat forecasts are statistically indistinguishable at all levels of political knowledge, and the point estimates are fairly consistent. But low-trust, high-knowledge Republicans predict consistently higher inflation than low-trust, high-knowledge Democrats, *conditional on their perceptions about recent inflation and the long run*, and conditional on other controls.

**Discussion** The signal-extraction model in equation (2) implies a null hypothesis that is rejected in our sample. After conditioning on respondents' beliefs about current rates of inflation and its long-run tendency, we continue to find that political party matters, explaining a little less than half of the absolute difference the average partisan difference in forecasts in our survey. This confirms that partisanship plays significant, independent role in driving responses to forecast surveys. We further find differences in trust and political

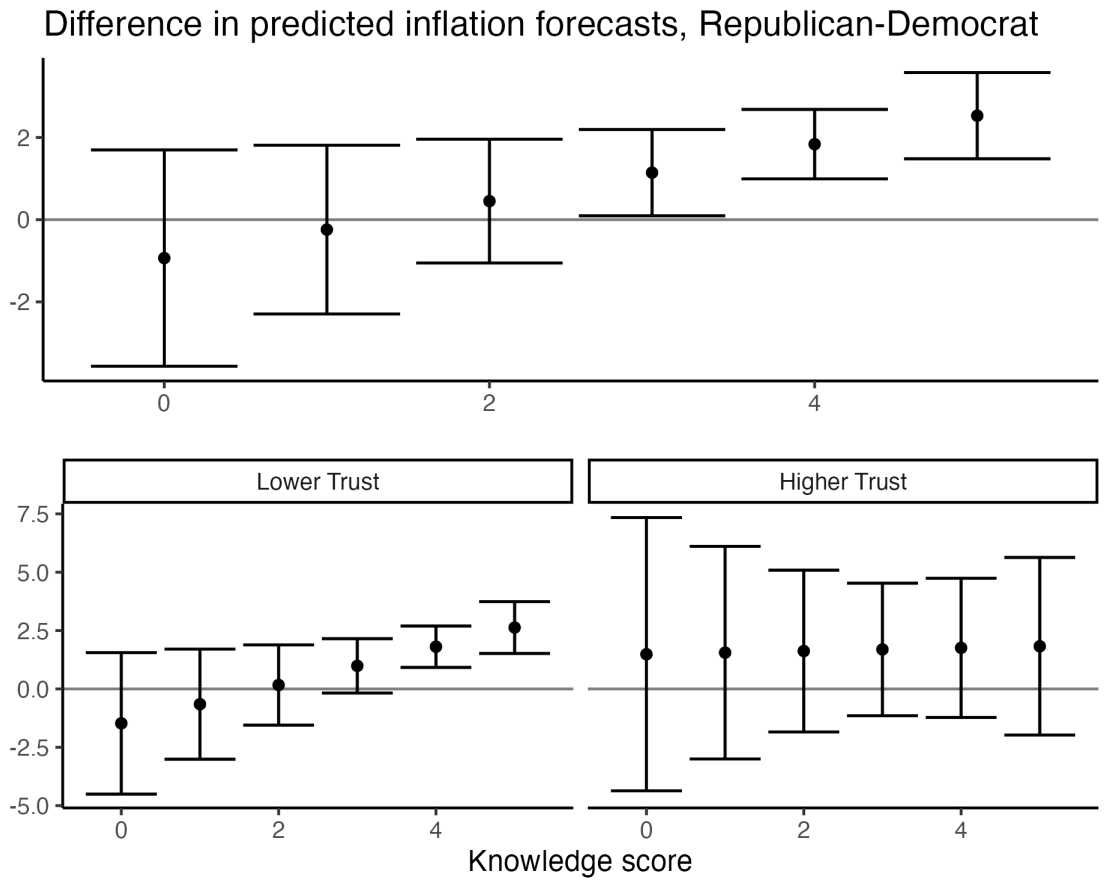


Figure 4: Differences in predicted inflation forecasts (Republican - Democrat). Top panel estimates difference in predicted inflation forecasts, all else equal, for a Republican minus the predicted inflation forecast for a Democrat at different levels of political knowledge score, where predictions are generated using the model shown in column (2) of Table 6. Bottom panel shows shows predicted difference in inflation forecasts across party status and political knowledge for low-trust (left) and high-trust (right) respondents who are otherwise identical, using the results shown in column (6) of Table 6. 99% error bands calculated using the delta method.

knowledge are associated with differences in near-term forecasts of inflation, even conditional on reported beliefs about recent inflation and its long-term tendency.

The significant independent role of partisanship after conditioning on nowcasts and long-run beliefs is a challenge for some possible explanations. For example, if Republicans and Democrats shop at different stores or even just watch different news channels (c.f. Binetti et al. (2024)), we would expect that to be captured in their assessments of recent inflation or its long-run tendency.[6] Moreover, these effects still hold conditional on a number of other economic and demographic controls, such as age, gender, race, their educational attainment, and income (among others). Indeed, adding these controls does not materially affect our estimated coefficients on past or long-run inflation and barely affects the estimated level shift between Democrats and Republicans. To emphasize, this does not mean that differences between partisans' beliefs about past or long-run inflation do not matter. Instead, it implies that party lean matters for reasons in addition to its affects on the elements of households' signal extraction process.

The roles of trust and political knowledge are informative for explaining the "residual" partisan divide. *Within* party, it is higher-knowledge partisans that appear to drive the difference in forecasts. Particularly, knowledgeable Republicans have the highest average forecasts, even conditional on their stated beliefs about the short- and long-run. When we further decompose partisans into high- and low-trust subgroups, we find that high trust partisans give virtually indistinguishable forecasts at any given level of political knowledge (conditional on covariates), and low-trust, low-knowledge partisans do not express detectable differences in forecasts.[7] In this light, the fact that the divide between partisans' forecasts has grown over time (as shown in Figure 1) may be related to the widespread decline in trust documented by other surveys, such as the General Social Survey (see Figure 5).

[6]Of course, it is possible that our simple canonical model is incorrect about the time series process for inflation or how agents form beliefs. This is still interesting because some version of this model is a widely-used alternative to full-information rational expectations.

[7]One potential issue is that there are relatively few "high trust" Republicans in our particular sample. This may mean the specifications with triple interactions are underpowered. However, the differences between partisans at different levels of knowledge is less likely to suffer from a power concern.

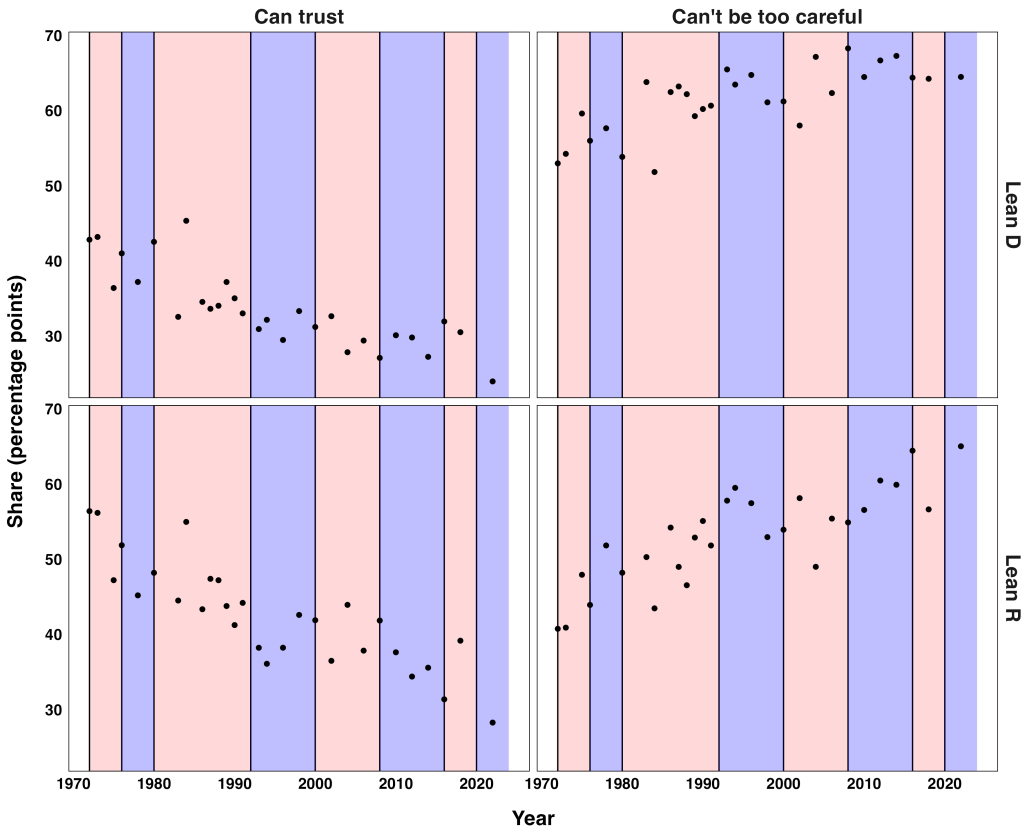


Figure 5: Share of responses to the question "Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?" in the General Social Survey (Smith et al. (2023)). Top row shows respondents whose part affiliation leans Democratic, bottom are for those who lean Republican. Sum is less than 100% due to the exclusion of respondents who indicated that "it depends." Shading indicates party of the President (red indicating Republican).

Our interpretation is that survey respondents are engaging in a form of motivated reasoning. Kunda (1990) reviews the psychological literature on motivated reasoning and distinguishes between motives for accuracy and "directional" reasoning (cognitive processes mediated by the desire to arrive at a particular conclusion). Kunda argues that motivated reasoning is not arbitrary endorsement of conclusions, but rather particular conclusions that can be rationalized. A sizable literature in political psychology has found evidence of motivated reasoning in the interpretation of factual information. In particular Kahan et al. (2017) find in a lab experiment that more numerate individuals are more likely interpret data in a way that is consistent with their partisan outlook (at the expense of accuracy). Prior et al. (2015) find in a survey experiment that accuracy incentives and appeals reduce partisan differences in reported economic conditions. In the context of studying partisan patterns of conspiracy theory endorsement, Miller et al. (2016) argue that endorsement of political misinformation is driven by three factors: (1) having the ability to attach the theory to a particular identity (e.g., a partisan ideology) (2) have a motive to protect that worldview and the ability to see how endorsing a conspiracy serves that purpose and (3) believe that the world is the type of place in which actual conspiracies are not just possible, but likely. Although inflation forecasting is obviously distinct from the conspiracy theories directly studied in Miller et al. (2016), we see a similar dynamic at play. Partisans who could be expected to understand *how* responding to the survey serves a partisan end appear to report forecasts that are, in part, an endorsement or non-endorsement of the party in power and are "coherent" with their partisan identity. We see this especially for Republicans in our sample, as we might expect, because they were the party "out of power" (at least as far as the White House was concerned).

It is possible to rationalize this type of expressive forecast disagreement through a game-theoretic lens. Appendix C constructs a simple two-person non-cooperative game where agents receive common and idiosyncratic signals and choose an action that minimizes a quadratic loss function with two elements: accuracy relative to a fundamental (e.g., having

an objectively accurate forecast) and the distance from the action of the other player (e.g., distinguishing oneself from an opposed partisan). Agents' best response functions depend on the quality of signals and both players' preferences for/against coordination. An increase in desired coordination (or less loss from coordination) will tend to increase weight on common signals in the best response function – in other words, inflation forecasts will be closer to what everybody knows. On the other hand, if agents desire to not coordinate (or if the weight on coordination is positive, but small enough), an increase in the quality of their idiosyncratic signal will lead to a forecast closer to their idiosyncratic signal and greater survey disagreement between types in equilibrium. To the extent that low-trust partisans are apt to respond to affective motives over accuracy motives, that would result in greater weight on the non-coordination motive; greater knowledge could be reflected in more precise signals about inflation. The equilibrium policy functions of the model illustrate that responses to surveys can be shaded by partisan motives while still reflecting a the agent's "true" forecast of the underlying fundamental. In other words, the partisan divide could be (partially) attributable to strategic behavior, without ruling out that they are related to "actual" forecasts that impact economic behavior.

An additional piece of supportive evidence comes from survey questions about the effects of monetary policy. Binetti et al. (2024) report survey results that Democrats tend to blame the Federal Reserve less than Republicans for inflation, and that more than half of their respondents believe inflation *increases* following an increase in interest rates. We also find a sizable portion of our sample reports this belief a year and a half prior, although it is merely the modal respondent who thinks rate increases will worsen inflation (a plurality think it will lower or or have no effect, as shown in figure 3). More specifically, our survey took place in the middle of a series of Federal Reserve target interest rate increases. We asked "The Federal Reserve raised its interest rate target by 2.25 percentage points between March and August of 2022. Do you think those decisions will raise inflation, lower inflation, or have no effect on inflation overall?" We estimate linear probability models and probit regressions where the

dependent variable takes on the value of 1 when the respondent indicates that raising interest rates will *worsen* inflation.[8] The resulting estimates are shown in Table 14 in Appendix B.2. High trust Republicans are significantly less likely to say that increasing the Fed Funds target will cause inflation to go up than low trust Republicans. Increased political knowledge *decreases* the probability of a Democrat will say Fed hikes will *worsen* inflation, but has essentially no effect for Republicans. When we incorporate interaction terms and estimate marginal effects, the pattern of higher-knowledge partisans having different assessments of policy is significant at only the highest level of knowledge. This is driven by Democrats being less likely to believe inflation will worsen due to Fed rate hikes. This seems broadly consistent with our interpretation of survey responses being somewhat strategic; Democrats (especially high-knowledge ones) expressing confidence that inflation will be tamed in the future, relative to high-knowledge Republicans.

# 5 Conclusions

We survey a nationally representative sample of adults about their beliefs about past and future inflation, as well as their social and political views. Although our sample is a single cross-section, the forecasts are consistent with other panel surveys of household expectations, particularly the partisan split observed in those forecasts. We show that party lean is correlated not only with near-term inflation forecasts, but in nowcasts and forecasts of the long-run level of inflation, which complicates interpretation of regressions of forecasts on party lean alone. However, when we incorporate party lean into a regression drawn from a model of signal extraction, partisanship continues to play an economically significant role. The influence of partisan identity, over and above the information encoded in their "nowcasts" is difficult to reconcile either with canonical full information rational expectations

[8] We group "will lower" and "will have no effect" responses in part because the counterfactual respondents might have in mind is not clear; while mainstream macroeconomic theory suggests that raising the Fed Funds target should decrease inflation *all else equal* it is possible respondents might have thought that interest rate hikes would not be sufficient or that inflation would rise for other reasons.

models and common alternatives such as Bayesian learning and diagnostic expectations. When we investigate the partisan divide, we find that it is driven by respondents who are knowledgeable about politics. We find suggestive evidence that this is especially true for knowledgeable partisans who express low generalized trust in others. Our interpretation of these results is that the apparently-widening partisan divide in economic assessments of the economy is likely to be driven, in part, by strategic responses to surveys, combined with behavioral motives that encourage respondents to offer responses that are colored by their partisan identity. This finding is consistent with the broader psychological literature on the intersection of partisanship and motivated reasoning.

Our interpretation implies the widening partisan divide in economic surveys reflects broader social trends in American politics – particularly, a decline in expressed trust and increased political polarization. On the one hand, this presents a challenge for economists and policymakers attempting to interpret household surveys, because responses are a combination of "true" forecasts and expressive beliefs, with uncertain relative weights that need not be constant over time. On the other hand, this may imply partisans' "true" (mean-squared error minimizing) beliefs are more similar than survey results imply. This may help explain the mixed results of studies linking election outcomes to spending behavior, the the apparent growing role of partisanship-driven sentiment (Kamdar and Ray (2023)) and the possible disconnect between recent measures of sentiment and the actual state of the economy (Stewart (2023)).

Our survey focused on the interaction of partisanship and trust during a time of particularly high inflation. It would be interesting to understand whether inflation forecast in surveys become less expressive if (and when) inflation becomes a less salient political concern. Future research could also examine the extent to which survey questions or incentives can be modified to elicit "true" forecasts. For instance, Prior et al. (2015)'s experimental results suggest that respondents can be influenced via monetary incentives and accuracy appeals, which suggests a possible route for surveyors to ameliorate partisan motives in survey

responses. We have also emphasized the role of political knowledge, drawing on the political psychology literature. It is possible that numeracy or economic knowledge may also play a role in the tendency or ability of partisans to strategically respond to surveys. We plan to explore this in future work.

# References


Aidala, Felix, Olivier Armantier, Giorgio Topa, and Wilbert van der Klaauw (2024) "Partisan expectations and COVID era inflation: A comment," *Journal of Monetary Economics*, 148, 103659, https://doi.org/10.1016/j.jmoneco.2024.103659, Inflation in the COVID Era and Beyond.

Atkeson, Andrew and Lee E. Ohanian (2001) "Are Phillips curves useful for forecasting inflation?," *Federal Reserve Bank of Minneapolis Quarterly Review*, 25 (Win), 2–11.

Bachmann, Oliver, Klaus Gründler, Niklas Potrafke, and Ruben Seiberlich (2021) "Partisan bias in inflation expectations," *Public Choice*, 186 (3), 513–536.

Binder, Carola (2023) "Political party affiliation and inflation expectations," `https://www.brookings.edu/2023/01/09/political-party-affiliation-and-inflation-expectations/`, January.

Binder, Carola Conces, Rupal Kamdar, and Jane M. Ryngaert (2024) "Partisan expectations and COVID-era inflation," *Journal of Monetary Economics*, 148, 103649, https://doi.org/10.1016/j.jmoneco.2024.103649, Inflation in the COVID Era and Beyond.

Binetti, Alberto, Francesco Nuzzi, and Stefanie Stantcheva (2024) "People's understanding of inflation," *Journal of Monetary Economics*, 148, 103652, https://doi.org/10.1016/j.jmoneco.2024.103652, Inflation in the COVID Era and Beyond.

Bordalo, Pedro, Nicola Gennaioli, Yueran Ma, and Andrei Shleifer (2020) "Overreaction in Macroeconomic Expectations," *American Economic Review*, 110 (9), 2748–82.

Bordalo, Pedro, Nicola Gennaioli, and Andrei Shleifer (2022) "Overreaction and Diagnostic Expectations in Macroeconomics," *Journal of Economic Perspectives*, 36 (3), 223–244.

Brady, David W., John A. Ferejohn, and Brett Parker (2022) "Cognitive Political Economy:

A Growing Partisan Divide in Economic Perceptions," *American Politics Research*, 50 (1), 3–16.

Broer, Tobias and Alexandre N. Kohlhas (2022) "Forecaster (Mis-)Behavior," *The Review of Economics and Statistics*, 1–45.

Coibion, Olivier, Dimitris Georgarakos, Yuriy Gorodnichenko, and Maarten van Rooij (2019) "How Does Consumption Respond to News about Inflation? Field Evidence from a Randomized Control Trial," NBER Working Papers 26106, National Bureau of Economic Research, Inc.

Coibion, Olivier and Yuriy Gorodnichenko (2012) "What Can Survey Forecasts Tell Us about Information Rigidities?," *Journal of Political Economy*, 120 (1), 116–159, 10.1086/665662.

——— (2015) "Is the Phillips Curve Alive and Well after All? Inflation Expectations and the Missing Disinflation," *American Economic Journal: Macroeconomics*, 7 (1), 197–232.

Coibion, Olivier, Yuriy Gorodnichenko, and Rupal Kamdar (2018) "The Formation of Expectations, Inflation, and the Phillips Curve," *Journal of Economic Literature*, 56 (4), 1447–1491.

Coibion, Olivier, Yuriy Gorodnichenko, and Tiziano Ropele (2020a) "Inflation Expectations and Firm Decisions: New Causal Evidence," *The Quarterly Journal of Economics*, 135 (1), 165–219.

Coibion, Olivier, Yuriy Gorodnichenko, and Michael Weber (2020b) "Political Polarization and Expected Economic Outcomes," NBER Working Papers 28044, National Bureau of Economic Research, Inc.

Croushore, Dean (1997) "The Livingston Survey: still useful after all these years," *Business Review – Federal Reserve Bank of Philadelphia* (Mar), 15–27.

Curtin, Richard (2018) "Consumer Economic Expectations: Persistent Partisan Differences," September, https://data.sca.isr.umich.edu/fetchdoc.php?docid=61141.

D'Acunto, Francesco, Ulrike Malmendier, and Michael Weber (2023) "What do the data tell us about inflation expectations?" in Bachmann, Rüdiger, Giorgio Topa, and Wilbert van der Klaauw eds. *Handbook of Economic Expectations*, 133–161: Academic Press.

Gennaioli, Nicola, Yueran Ma, and Andrei Shleifer (2016) "Expectations and Investment," in *NBER Macroeconomics Annual, Vol. 30 (2015)*, 379–442: National Bureau of Economics Research.

Gerber, Alan S. and Gregory A. Huber (2009) "Partisanship and Economic Behavior: Do Partisan Differences in Economic Forecasts Predict Real Economic Behavior?" *American Political Science Review*, 103 (3), 407–426.

Gillitzer, Christian, Nalini Prasad, and Tim Robinson (2021) "Political Attitudes and Inflation Expectations: Evidence and Implications," *Journal of Money, Credit and Banking*, 53 (4), 605–634.

Huo, Zhen and Marcelo Pedroni (2020) "A Single-Judge Solution to Beauty Contests," *American Economic Review*, 110 (2), 526–68.

Kahan, Dan M., Ellen Peters, Erica Cantrell Dawson, and Paul Slovic (2017) "Motivated numeracy and enlightened self-government," *Behavioural Public Policy*, 1 (1), 54–86.

Kamdar, Rupal and Walker Ray (2023) "Polarized Expectations, Polarized Consumption,"Technical report.

Kay, Benjamin, Jane Ryngaert, Aeimit Lakdawala, and Michael Futch (2023) "Partisan Bias in Professional Macroeconomic Forecasts," working paper.

Kunda, Ziva (1990) "The case for motivated reasoning," *Psychological Bulletin*, 108 (3), 408 – 498.

Lucas, Robert Jr. (1972) "Expectations and the neutrality of money," *Journal of Economic Theory*, 4 (2), 103–124.

Mankiw, N. Gregory and Ricardo Reis (2002) "Sticky Information versus Sticky Prices: A Proposal to Replace the New Keynesian Phillips Curve," *The Quarterly Journal of Economics*, 117 (4), 1295–1328.

Mason, Lilliana (2015) ""I Disrespectfully Agree": The Differential Effects of Partisan Sorting on Social and Issue Polarization," *American Journal of Political Science*, 59 (1), 128–145.

Maćkowiak, Bartosz, Filip Matějka, and Mirko Wiederholt (2021) "Rational inattention: a review," (2570).

McGrath, Mary C. (2017) "Economic Behavior and the Partisan Perceptual Screen," *Quarterly Journal of Political Science*, 11 (4), 363–383.

Mian, Atif, Amir Sufi, and Nasim Khoshkhou (2023) "Partisan Bias, Economic Expectations, and Household Spending," *The Review of Economics and Statistics*, 105 (3), 493–510.

Miller, Joanne M., Kyle L. Saunders, and Christina E. Farhart (2016) "Conspiracy Endorsement as Motivated Reasoning: The Moderating Roles of Political Knowledge and Trust," *American Journal of Political Science*, 60 (4), 824–844.

Morris, Stephen and Hyun Song Shin (2002) "Social Value of Public Information," *American Economic Review*, 92 (5), 1521–1534.

Nimark, Kristoffer P. and Savitar Sundaresan (2019) "Inattention and belief polarization," *Journal of Economic Theory*, 180, 203–228.

Ottaviani, Marco and Peter Norman Sørensen (2006) "The strategy of professional forecasting," *Journal of Financial Economics*, 81 (2), 441–466.

Patton, Andrew J. and Allan Timmermann (2010) "Why do forecasters disagree? Lessons from the term structure of cross-sectional dispersion," *Journal of Monetary Economics*, 57 (7), 803–820.

Prior, Markus, Gaurav Sood, and Kabir Khanna (2015) "You Cannot be Serious: The Impact of Accuracy Incentives on Partisan Bias in Reports of Economic Perceptions," *Quarterly Journal of Political Science*, 10 (4), 489–518.

Schaffner, Brian, Stephen Ansolabehere, and Marissa Shih (2023) "Cooperative Election Study Common Content, 2022," 10.7910/DVN/PR4L8P.

Sims, Christopher A. (1998) "Stickiness," *Carnegie-Rochester Conference Series on Public Policy*, 49 (1), 317–356.

——— (2003) "Implications of rational inattention," *Journal of Monetary Economics*, 50 (3), 665–690.

Smith, Tom W., Michael Davern, Jeremy Freese, and Stephen L Morgan (2023) "General Social Surveys, 1972-2022," machine-readable dataset, NORC.

Stewart, Emily (2023) ""Wages are rising. Jobs are plentiful. Nobody's happy."," *Vox*, `https://www.vox.com/2023/11/20/23964535/labor-market-employment-inflation-sentiment-economy-bad-polls`.

Stock, James H and Mark W Watson (2008) "Phillips Curve Inflation Forecasts," Working Paper 14322, National Bureau of Economic Research.

University of Michigan, Survey Research Center (2022) "Survey of Consumers," `https://data.sca.isr.umich.edu/`.

Valchev, Rosen and Luca Gemmi (2023) "Biased Surveys," Working Paper 31607, National Bureau of Economic Research.

Weber, Michael (2022) "Subjective inflation expectations of households," *Business Economics*, 57 (4), 217–221.

Weber, Michael, Francesco D'Acunto, Yuriy Gorodnichenko, and Olivier Coibion (2022) "The Subjective Inflation Expectations of Households and Firms: Measurement, Determinants, and Implications," *Journal of Economic Perspectives*, 36 (3), 157–184.

Woodford, Michael (2003) *Imperfect Common Knowledge and the Effects of Monetary Policy*, 25–58: Princeton University Press.

# A Survey questions

## A.1 Questions about inflation and Federal Reserve policy

Our main questions about inflation were presented as part of a module of the CES survey as described in the text. The first three questions were presented on a single screen:

> Now we have a set of questions concerning current economic conditions.
> What do you think inflation was over the last year, i.e. the annual change in the Consumer Price Index (CPI)?
> What do you think the inflation rate will be over the next 12 months?
> What annual inflation rate do you think the Federal Reserve is trying to achieve on average?
>
> 0.0% to 0.4%
> 0.5% to 0.9%
> 1.0% to 1.4%
> 1.5% to 1.9%
> 2.0% to 2.4%
> 2.5% to 3.4%
> 3.5% to 4.4%
> 4.5% to 5.4%
> 5.5% to 6.4%
> 6.5% to 7.4%
> 7.5% to 8.4%
> 8.5% to 10.4%
> 10.5% to 15.4%
> More than 15.5%

Then, on a new screen, survey participants were given the following question and choices for response:

> The Federal Reserve raised its interest rate target by 2.25 percentage points between March and August of 2022. Do you think those decisions will raise inflation, lower inflation, or have no effect on inflation overall?
>
> Raise inflation
>
> Lower inflation
>
> Have no effect on inflation

**Internal validity** To check whether respondents are providing sensible responses, we compare the *quantitative* descriptions of past inflation provided by respondents to their *qualitative* characterization of prices changes over the past year. The latter simply asks respondents to qualitatively describe price changes on a five-point scale from "Decreased a lot" to "Increased a lot". The cross-tabulated responses are displayed in Table 7. The bulk of responses seem sensible; most responses are located in the first two columns ("increased a lot" or "increased somewhat") and are concentrated in bins with inflation exceeding 5.5%.

## A.2 Other questions from the Cooperative Election Survey

**Questions about trust** Our trust measure also comes from our module of the CES survey. On a single screen participants were given the following prompt:

> How much of the time can you trust the following groups to do what is right?

And in a table, asked to select a cell for each of the following rows and columns:

| | Almost always | Most of the time | Some of the time | Almost never |
|---|---|---|---|---|
| The federal government in Washington | | | | |
| Law enforcement | | | | |
| The media | | | | |
| People in general | | | | |
| Scientists | | | | |

| - | Increased a lot | Increased somewhat | Stayed about the same | Decreased somewhat | Decreased a lot |
|---|---|---|---|---|---|
| 0.0% to 0.4% | 1.4 | 1.4 | 0.3 | 0.0 | 0.0 |
| 0.5% to 0.9% | 1.1 | 1.4 | 0.1 | 0.0 | 0.0 |
| 1.0% to 1.4% | 2.2 | 0.9 | 0.1 | 0.2 | 0.0 |
| 1.5% to 1.9% | 2.2 | 2.9 | 0.6 | 0.0 | 0.0 |
| 2.0% to 2.4% | 5.0 | 3.8 | 0.3 | 0.2 | 0.1 |
| 2.5% to 3.4% | 1.9 | 1.9 | 0.3 | 0.0 | 0.1 |
| 3.5% to 4.4% | 2.9 | 1.4 | 0.6 | 0.0 | 0.0 |
| 4.5% to 5.4% | 3.3 | 1.9 | 0.1 | 0.0 | 0.0 |
| 5.5% to 6.4% | 5.7 | 1.7 | 0.5 | 0.0 | 0.0 |
| 6.5% to 7.4% | 3.8 | 1.6 | 0.1 | 0.0 | 0.0 |
| 7.5% to 8.4% | 13.0 | 5.5 | 0.1 | 0.0 | 0.0 |
| 8.5% to 10.4% | 14.6 | 4.4 | 0.2 | 0.5 | 0.1 |
| 10.5% to 15.4% | 5.2 | 0.2 | 0.0 | 0.0 | 0.0 |
| More than 15.5% | 4.1 | 0.1 | 0.0 | 0.0 | 0.0 |

*Note:*
Weighted percentages of sample. Ex-post correct price increase bin for survey window is 7.5 to 8.4 percent

Table 7: Cross-tabulation of responses to questions about perception of price changes over the past year . Each entry is the percentage of the sample falling in a bin characterized by a quantitative statement about inflation over the previous year (rows) and a qualitative description of price changes in the previous year (columns).

To convert this to a numerical value, we assign a score of "3" to "Almost always" and decrease the score by 1 for subsequently lower responses. "High trust" individuals were those that had an average score of 2 or above across the set of five questions.

**General module questions: Demographic and political beliefs** We make the following adjustments and transformations to demographic, financial, and political variables:

- Due to sample size issues, we drop respondents who list a gender identity other than "man" or "woman."
- Age is calculated as 2022 minus birth year.
- Race responses were consolidated to an indicator variable for "White", and a separate indicator variable for "Hispanic." Respondents were able to either list "Hispanic" as their race or separately, and the indicator for Hispanic takes on a value of one if they did either.
- Political party identify is based on stated party lean, rather than party registration.

- "Ideology" was on a 5-point scale. We set "Very conservative" to 1 and "Very liberal" to 5.

- "Pays attention" is based on the following question:

  > Some people seem to follow what's going on in government and public affairs most of the time, whether there's an election going on or not. Others aren't that interested. Would you say you follow what's going on in government and public affairs...

  Responses were on a 4-point scale from "Hardly at all" (assigned 0) to "Most of the time" (assigned 3). Responses of "don't know" were assigned missing.

- "Political knowledge" was the total correct answers to five multiple-choice questions. These questions asked the name of the current Chief Justice of the Supreme Court, Speaker of the House, and Secretary of State, and whose responsibility it was to nominate judges to Federal courts, and what government body was responsible for determining if a law was constitutional.

- "Correct partisan order" is based on a question asking how the respondent would rate a set of individuals and group on a 7-point scale from "very liberal" to "very conservative." "Correct Partisan order" is coded as 1 if the respondent rated the Democratic Party as being *at least as* liberal as the Republican party.

- Self-indicated employment status was classified to "employed," "unemployed," and "out of the labor force."

## A.3 Raw results and cross-tabulations

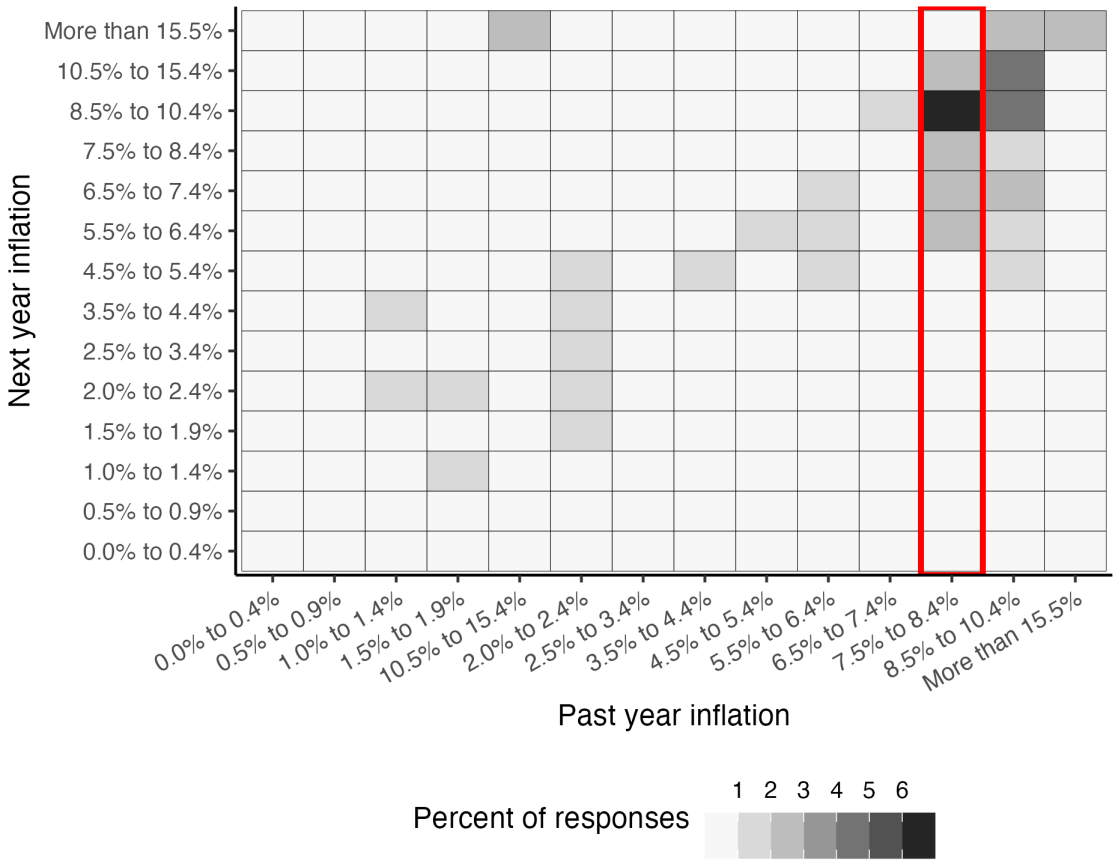


Figure 6: Weighted percentage of responses to question about expected inflation over the next twelve months (vertical axis) and perceived inflation over the past twelve months (horizontal). Correct bin for past inflation highlighted in red.

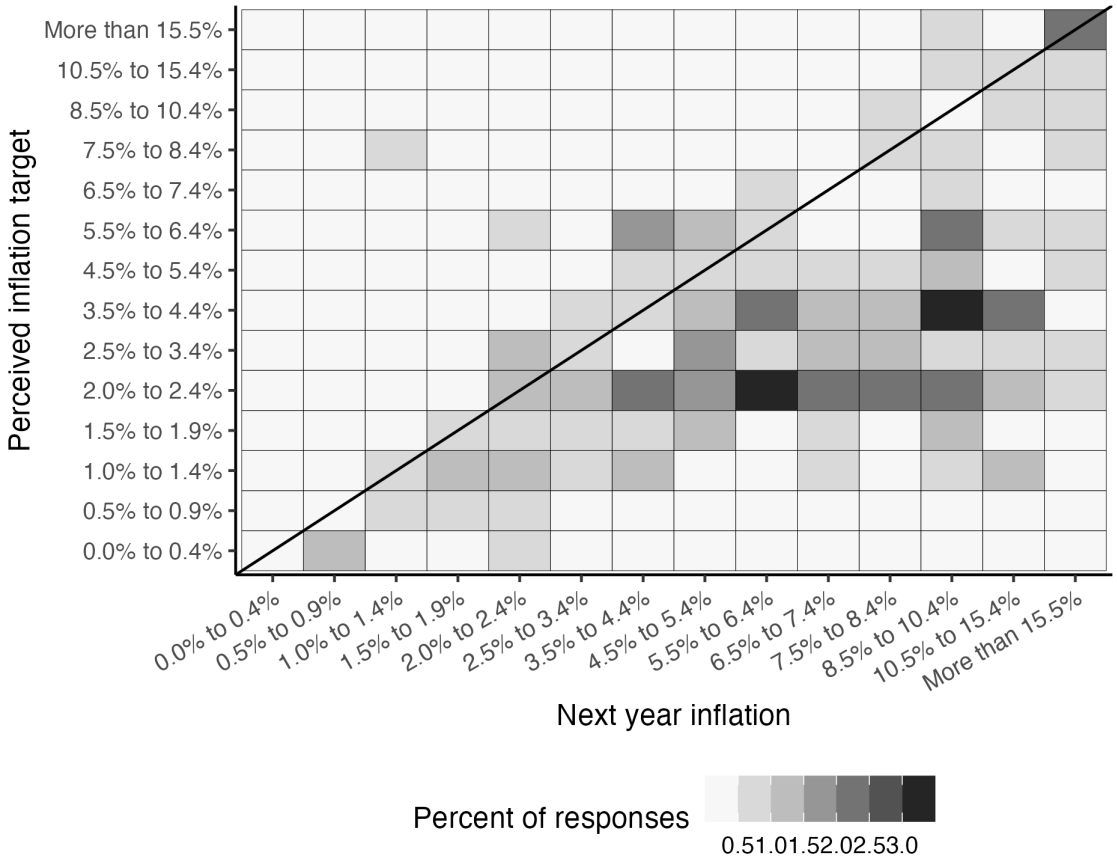


Figure 7: Weighted percentage of responses to question about expected inflation over the next twelve months (horizontal axis) and Federal Reserve's perceived inflation target (horizontal axis). Bins along 45 degree line indicate same response to both questions; bins to the right of the 45 degree line are responses where next year's inflation exceeds perceived target.

Table 8: Demographic, economic, and partisan composition of survey sample

| Variable | | Percent |
|---|---|---|
| Male | FALSE | 52.0 |
| | TRUE | 48.0 |
| White | FALSE | 28.4 |
| | TRUE | 71.6 |
| Hispanic | FALSE | 87.7 |
| | TRUE | 12.3 |
| Education | No HS | 6.3 |
| | HS grad | 29.0 |
| | Some college | 28.7 |
| | Bachelor | 23.2 |
| | Post-grad | 12.8 |
| Household income | Below 40k | 36.7 |
| | 40-80k | 30.1 |
| | 80-120k | 23.5 |
| | Above 120k | 9.7 |
| No way to pay for 400 dollar emergency | FALSE | 79.8 |
| | TRUE | 20.2 |
| Has child under 18 | FALSE | 76.1 |
| | TRUE | 23.4 |
| Homeowner | FALSE | 40.8 |
| | TRUE | 59.2 |
| Media use in past 24 hrs | FALSE | 4.8 |
| | TRUE | 95.2 |
| Reg. Voter | FALSE | 21.5 |
| | TRUE | 78.5 |
| Party lean | Democrat | 44.0 |
| | Republican | 38.4 |
| | Independent | 15.2 |
| | Not sure/DK | 2.4 |

*Note:*
'Hispanic includes survey respondents of any race that indicated they were Hispanic. "No way to pay for 400 dollar emergency" is False for individuals who indicate they either had enough financial resources or could obtain them by selling posessions or borrowing. Party lean categories include those who indicated any lean to a particular party.

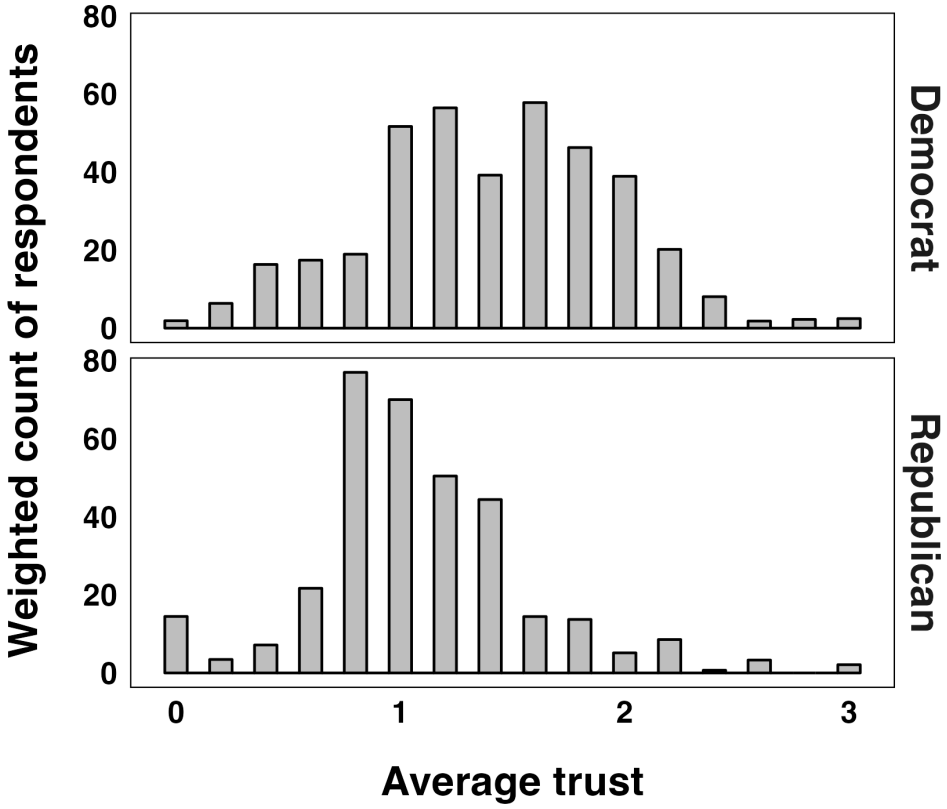


Figure 8: Histogram of respondents' average trust score by party lean. Counts are weighted using survey weights.

Table 9: Responses to questions about political knowledge, attention, and trust in others

| Variable | Range | Mean | Median | SD | IQR |
|---|---|---|---|---|---|
| Political knowledge score | [0, 5] | 3.8 | 4.0 | 1.4 | [3, 5] |
| Attention to politics | [0, 3] | 2.2 | 2.0 | 1.0 | [2, 3] |
| Ideology | [1, 5] | 3.1 | 3.0 | 1.2 | [2, 4] |
| Avg. Trust | [0, 3] | 1.3 | 1.2 | 0.5 | [1, 1.6] |

*Note:*
'Political knowledge score' indicates number of correct answers to a set of five factual questions about politics and government. 'Media use in past 24 hrs' takes on a value of 1 if respondent indicated they had used social media, watched TV news, read a newspaper, or listened to radio news. 'Attention to politics' is self-assessed frequency of how often respondent follows government and public affairs. 'Ideology' is on a 1-5 point scale where 1 indicates "Very conservative" and 5 indicates "Very liberal." 'Avg. Trust' is the average of response to questions about how often different groups or institutions can be trusted, as described in appendix A.2. Qualitative answers are converted to numerical on a 4 point scale, with 0 indicating 'Almost never' to 3 for 'Almost always.'

Table 10: Partisan lean and beliefs about inflation and monetary policy.

| Perceived past inflation | Democrat | Republican | Independent | Not sure/DK |
|---|---|---|---|---|
| 0.0% to 0.4% | 0.6 | 1.2 | 1.0 | 0.3 |
| 0.5% to 0.9% | 1.4 | 0.7 | 0.4 | 0.0 |
| 1.0% to 1.4% | 2.6 | 0.5 | 0.3 | 0.0 |
| 1.5% to 1.9% | 2.9 | 1.4 | 1.1 | 0.3 |
| 2.0% to 2.4% | 4.5 | 3.2 | 1.3 | 0.3 |
| 2.5% to 3.4% | 2.3 | 1.4 | 0.5 | 0.2 |
| 3.5% to 4.4% | 3.0 | 1.1 | 0.7 | 0.1 |
| 4.5% to 5.4% | 2.6 | 1.7 | 0.5 | 0.4 |
| 5.5% to 6.4% | 5.1 | 1.4 | 0.7 | 0.7 |
| 6.5% to 7.4% | 2.9 | 1.9 | 0.7 | 0.0 |
| 7.5% to 8.4% | 6.4 | 9.2 | 3.0 | 0.0 |
| 8.5% to 10.4% | 8.2 | 8.5 | 3.1 | 0.2 |
| 10.5% to 15.4% | 0.7 | 3.9 | 0.8 | 0.0 |
| More than 15.5% | 0.8 | 2.3 | 1.1 | 0.0 |

| Forecast inflation | Democrat | Republican | Independent | Not sure/DK |
|---|---|---|---|---|
| 0.0% to 0.4% | 0.5 | 0.5 | 0.0 | 0.2 |
| 0.5% to 0.9% | 1.3 | 0.1 | 0.6 | 0.4 |
| 1.0% to 1.4% | 2.4 | 0.7 | 0.9 | 0.0 |
| 1.5% to 1.9% | 2.7 | 0.7 | 0.4 | 0.0 |
| 2.0% to 2.4% | 3.8 | 1.9 | 0.9 | 0.8 |
| 2.5% to 3.4% | 3.1 | 1.0 | 1.1 | 0.2 |
| 3.5% to 4.4% | 5.0 | 2.4 | 1.0 | 0.0 |
| 4.5% to 5.4% | 5.6 | 2.3 | 1.1 | 0.4 |
| 5.5% to 6.4% | 4.5 | 3.3 | 1.7 | 0.0 |
| 6.5% to 7.4% | 5.4 | 2.4 | 0.8 | 0.1 |
| 7.5% to 8.4% | 3.6 | 3.5 | 0.7 | 0.0 |
| 8.5% to 10.4% | 3.4 | 8.5 | 2.2 | 0.2 |
| 10.5% to 15.4% | 1.2 | 5.6 | 2.5 | 0.1 |
| More than 15.5% | 1.5 | 5.4 | 1.3 | 0.2 |

| Perceived inflation target | Democrat | Republican | Independent | Not sure/DK |
|---|---|---|---|---|
| 0.0% to 0.4% | 2.6 | 0.3 | 0.9 | 0.4 |
| 0.5% to 0.9% | 1.1 | 2.1 | 0.8 | 0.0 |
| 1.0% to 1.4% | 4.5 | 3.5 | 1.2 | 0.1 |
| 1.5% to 1.9% | 4.8 | 2.8 | 1.3 | 0.0 |
| 2.0% to 2.4% | 8.4 | 6.9 | 3.0 | 0.6 |
| 2.5% to 3.4% | 5.0 | 4.1 | 0.6 | 0.0 |
| 3.5% to 4.4% | 5.8 | 5.1 | 2.4 | 0.1 |
| 4.5% to 5.4% | 3.1 | 2.9 | 1.4 | 0.3 |
| 5.5% to 6.4% | 3.5 | 3.3 | 1.5 | 0.3 |
| 6.5% to 7.4% | 1.6 | 1.1 | 0.3 | 0.0 |
| 7.5% to 8.4% | 1.1 | 1.4 | 0.4 | 0.2 |
| 8.5% to 10.4% | 0.6 | 2.2 | 0.4 | 0.0 |
| 10.5% to 15.4% | 1.0 | 1.3 | 0.1 | 0.2 |
| More than 15.5% | 0.7 | 1.5 | 1.0 | 0.2 |

| Effect of interest rate increases | Democrat | Republican | Independent | Not sure/DK |
|---|---|---|---|---|
| Raise inflation | 14.7 | 18.2 | 5.9 | 1.3 |
| Lower inflation | 15.5 | 8.5 | 3.1 | 0.4 |
| Have no effect on inflation | 13.8 | 11.7 | 6.2 | 0.7 |

| Party identification | Ideology score 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Not sure | 0.0 | 0.1 | 0.6 | 0.0 | 0.0 |
| Strong Republican | 9.7 | 8.7 | 2.9 | 0.1 | 0.3 |
| Not very strong Republican | 0.3 | 4.5 | 2.8 | 0.1 | 0.0 |
| Lean Republican | 1.5 | 6.3 | 4.0 | 0.0 | 0.0 |
| Independent | 0.3 | 0.9 | 8.3 | 1.3 | 1.1 |
| Lean Democrat | 0.0 | 0.7 | 4.8 | 3.5 | 1.5 |
| Not very strong Democrat | 0.0 | 1.2 | 4.6 | 3.5 | 1.8 |
| Strong Democrat | 0.1 | 1.1 | 4.4 | 9.5 | 9.5 |

| Party lean | Ideology score 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Not sure/DK | 0.0 | 0.1 | 0.6 | 0.0 | 0.0 |
| Independent | 0.3 | 0.9 | 8.3 | 1.3 | 1.1 |
| Republican | 11.4 | 19.5 | 9.8 | 0.2 | 0.3 |
| Democrat | 0.1 | 3.1 | 13.8 | 16.4 | 12.8 |

Table 11: Party identification and self-rated ideology score. Each cell shows the (weighted) fraction with a given party identification or lean (rows) and ideology score (columns). Top panel shows disaggregated party identification, while bottom table shows party identification where respondents identifying to any degree with a party as members of that party. Ideology is on a 5 point scale, with 1 for "Very conservative" to 5 for "Very liberal."

# B Additional tables

## B.1 Robustness: Dropping ideology and dichotomous knowledge

Table 12: Cross-sectional forecasting regressions and political attitudes: adding ideology

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| Past inflation | 0.602*** | 0.610*** | 0.601*** | 0.611*** |
| | (0.046) | (0.050) | (0.047) | (0.051) |
| Belief about long-run inflation target | 0.351*** | 0.324*** | 0.351*** | 0.326*** |
| | (0.044) | (0.046) | (0.045) | (0.046) |
| Ideology | | -0.082 | | -0.090 |
| | | (0.165) | | (0.167) |
| Republican | -0.934 | -1.179 | -1.475 | -1.800 |
| | (1.022) | (1.080) | (1.177) | (1.265) |
| Independent | -1.128 | -1.013 | -1.355 | -1.272 |
| | (0.973) | (1.136) | (1.071) | (1.267) |
| Not sure party | -1.860 | -0.392 | -2.073 | -0.676 |
| | (2.992) | (11.369) | (3.017) | (11.475) |
| $\mathbb{I}$(High trust) | -0.106 | 0.023 | -0.777 | -0.710 |
| | (0.344) | (0.362) | (1.299) | (1.350) |
| Knowledge Score (0-5) | -0.137 | -0.203 | -0.179 | -0.248 |
| | (0.198) | (0.223) | (0.224) | (0.255) |
| Republican × Knowledge Score | 0.693*** | 0.719*** | 0.821*** | 0.861*** |
| | (0.242) | (0.263) | (0.277) | (0.305) |
| Independent × Knowledge Score | 0.577** | 0.464 | 0.689** | 0.587* |
| | (0.267) | (0.317) | (0.290) | (0.349) |
| Not sure party × Knowledge Score | 0.317 | -0.181 | 0.380 | -0.118 |
| | (1.116) | (4.302) | (1.121) | (4.338) |
| Republican ×$\mathbb{I}$(High trust) | | | 2.961 | 3.117 |
| | | | (2.588) | (2.734) |
| Independent ×$\mathbb{I}$(High trust) | | | 1.462 | 1.120 |
| | | | (1.545) | (2.033) |
| Knowledge Score ×$\mathbb{I}$(High trust) | | | 0.195 | 0.202 |
| | | | (0.310) | (0.321) |
| Republican × Knowledge Score ×$\mathbb{I}$(High trust) | | | -0.753 | -0.790 |
| | | | (0.671) | (0.698) |
| Independent × Knowledge Score ×$\mathbb{I}$(High trust) | | | -0.936** | -0.837* |
| | | | (0.399) | (0.486) |
| Constant | 1.379 | 1.518 | 1.386 | 1.573 |
| | (1.049) | (1.407) | (1.093) | (1.449) |
| Demographic and Economic controls | Yes | Yes | Yes | Yes |
| N | 909 | 842 | 909 | 842 |
| R2 | 0.59 | 0.58 | 0.60 | 0.58 |
| R2 Adj. | 0.58 | 0.56 | 0.58 | 0.56 |

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

Heteroskedasticity-robust standard errors shown in parentheses. Partisan categories (Republican, Democrat (excluded), Independent) obtained by consolidating self-identified partisan lean, including "not very strong' Democrats and Republicans as partisans of those respective parties; "Not sure party" indicates the respondent answered "Not sure" or "Don't know" about which party they leaned towards. "Ideology" is a self rating from 1-5 where 1 is very conservative and 5 is very liberal. Trust is measured as the average response to questions about whether the Federal government, law enforcement, scientists, media, and people in general can be trusted of is on a scale of 0-3 where 0 indicates almost never and 3 indicates they can always be trusted; "High Trust" is an average score of 2 or above. "Political knowledge" is the sum of how many factual questions about government and current affairs were answered correctly by the respondent. Specifications with "Demographic and Economic controls" include: an indicator variable for male respondent, an indicator for White respondent, indicator for Hispanic, categorical variables for educational attainment, age, categrorical variables for annual family income, indicator for having a child under 18, owning a home, and whether they can obtain money needed for a 400 dollar emergency expense).

Table 13: Cross-sectional forecasting regressions and political attitudes: dichotomous knowledge variable

| | (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|---|
| Past inflation | 0.603*** | 0.603*** | 0.601*** | 0.600*** | 0.603*** |
| | (0.045) | (0.045) | (0.045) | (0.046) | (0.046) |
| Belief about long-run inflation target | 0.338*** | 0.343*** | 0.336*** | 0.342*** | 0.341*** |
| | (0.046) | (0.046) | (0.046) | (0.047) | (0.046) |
| Republican | 1.738*** | 0.782 | 1.746*** | 0.727 | 0.523 |
| | (0.336) | (0.544) | (0.356) | (0.559) | (0.595) |
| Independent | 1.029** | -0.009 | 1.219*** | 0.172 | -0.059 |
| | (0.422) | (0.509) | (0.452) | (0.533) | (0.550) |
| Not sure party | -0.585 | -1.364 | -0.554 | -1.356 | -1.452* |
| | (0.854) | (0.878) | (0.853) | (0.876) | (0.881) |
| $\mathbb{I}$(High trust) | -0.248 | -0.161 | -0.064 | -0.004 | -0.372 |
| | (0.337) | (0.342) | (0.359) | (0.352) | (0.635) |
| $\mathbb{I}$(High knowledge) | 0.645* | -0.191 | 0.653* | -0.205 | -0.307 |
| | (0.345) | (0.441) | (0.344) | (0.440) | (0.490) |
| Republican × $\mathbb{I}$(High knowledge) | | 1.374** | | 1.441** | 1.716** |
| | | (0.626) | | (0.624) | (0.678) |
| Independent × $\mathbb{I}$(High knowledge) | | 1.684** | | 1.698** | 2.083*** |
| | | (0.759) | | (0.749) | (0.804) |
| Not sure party × $\mathbb{I}$(High knowledge) | | 3.324 | | 3.373 | 3.502* |
| | | (2.147) | | (2.104) | (2.116) |
| Republican ×$\mathbb{I}$(High trust) | | | 0.203 | 0.391 | 1.638 |
| | | | (1.146) | (1.186) | (1.606) |
| Independent ×$\mathbb{I}$(High trust) | | | -1.912** | -1.980** | 0.198 |
| | | | (0.757) | (0.868) | (0.833) |
| $\mathbb{I}$(High knowledge) ×$\mathbb{I}$(High trust) | | | | | 0.517 |
| | | | | | (0.781) |
| Republican × $\mathbb{I}$(High knowledge) ×$\mathbb{I}$(High trust) | | | | | -3.118 |
| | | | | | (1.993) |
| Independent × $\mathbb{I}$(High knowledge) ×$\mathbb{I}$(High trust) | | | | | -3.733*** |
| | | | | | (1.277) |
| Constant | 0.652 | 1.077 | 0.527 | 0.958 | 0.964 |
| | (0.889) | (0.900) | (0.896) | (0.906) | (0.896) |
| N | 909 | 909 | 909 | 909 | 909 |
| R2 | 0.58 | 0.59 | 0.58 | 0.59 | 0.59 |
| Demographic and Economic controls | Yes | Yes | Yes | Yes | Yes |
| R2 Adj. | 0.57 | 0.58 | 0.57 | 0.58 | 0.58 |

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

Heteroskedasticity-robust standard errors shown in parentheses. Partisan categories (Republican, Democrat (excluded), Independent) obtained by consolidating self-identified partisan lean, including "Lean" and "not very strong" Democrats and Republicans as partisans of those respective parties; "Not sure party" indicates the respondent answered "Not sure" or "Don't know" about which party they leaned towards. Trust is measured as the average response to questions about whether the Federal government, law enforcement, scientists, media, and people in general can be trusted of is on a scale of 0-3 where 0 indicates almost never and 3 indicates they can always be trusted; "High Trust" is an average score of 2 or above. "High knowledge" is an indicator value equal to 1 when the respondent answered at least four of five factual questions about government and current affairs correctly. Demographic and Economic controls include: an indicator variable for male respondent, an indicator for White respondent, indicator for Hispanic, categorical variables for educational attainment, age, categrorical variables for annual family income, indicator for having a child under 18, owning a home, and whether they can obtain money needed for a 400 dollar emergency expense).

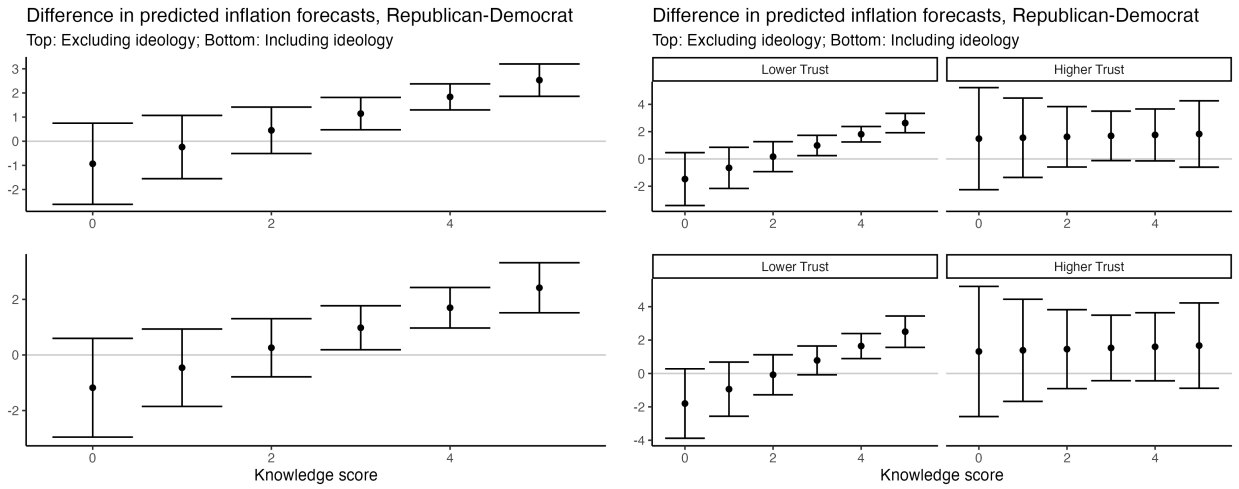


Figure 9: Differences in predicted inflation forecasts using results from Table 12. Left two panels show predicted differences generated using columns 1 and 2 of Table 12; top left panel shows marginal effects from model (1) in the table (excluding ideology) and bottom left shows marginal effects including ideology. Right panel compares marginal effects of increasing knowledge for high and low trust partisans based on columns (3) (top) and (4) (bottom) of Table 12. 99% error bands intervals calculated using the delta method.

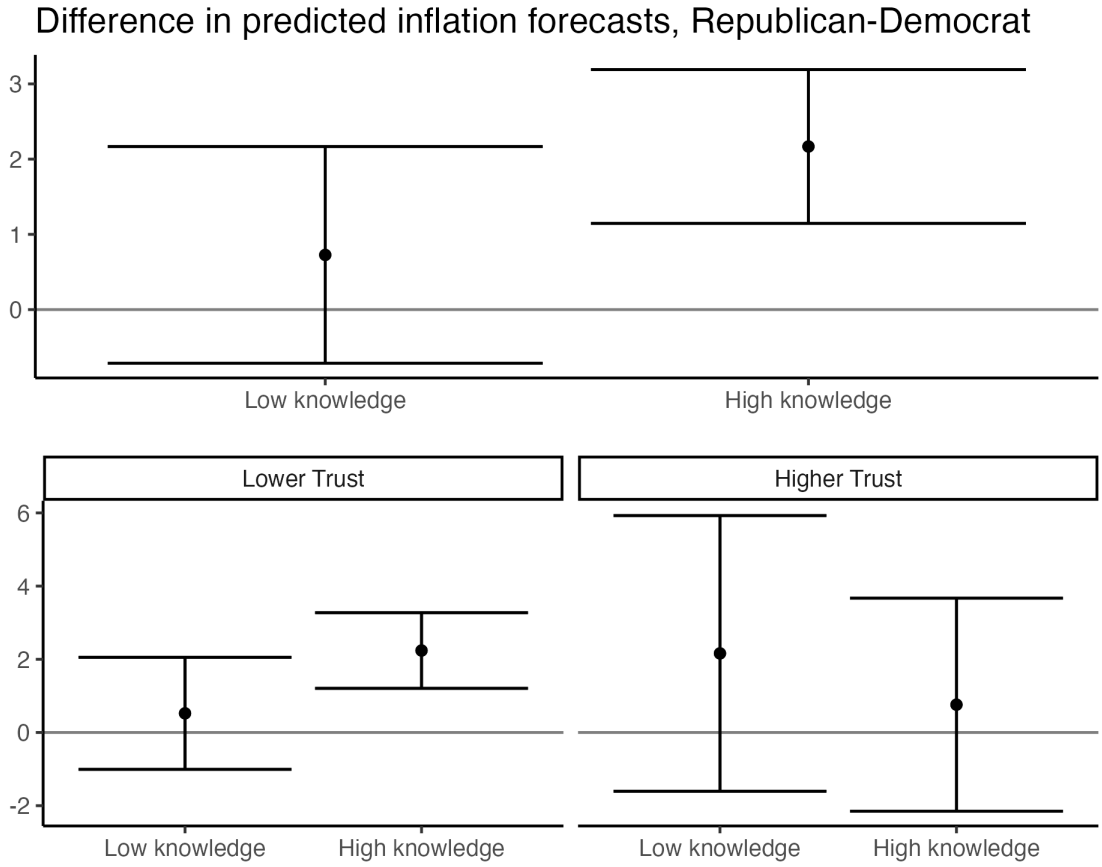


Figure 10: Differences in predicted inflation forecasts.Top panel shows marginal effects from model (2) 13; Right panel compares marginal effects for high and low-knowledge and high- and low-trust partisans based on columns (5) 13. 99% error bands intervals calculated using the delta method.

## B.2 Monetary policy beliefs

Table 14: Beliefs that increasing interest rates would worsen inflation and their association with beliefs about inflation, ideological characteristics, and political knowledge.

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| Inflation belief error | | 0.004 | | 0.004 | | 0.011 |
| | | (0.007) | | (0.007) | | (0.013) |
| Republican | -0.068 | -0.074 | 0.032 | 0.025 | 0.086 | 0.067 |
| | (0.152) | (0.151) | (0.171) | (0.171) | (0.331) | (0.332) |
| Independent | -0.275 | -0.283 | -0.309 | -0.317 | -0.828** | -0.858** |
| | (0.186) | (0.185) | (0.200) | (0.198) | (0.395) | (0.397) |
| Not sure party | -0.430 | -0.426 | -0.408 | -0.406 | -1.158 | -1.154 |
| | (0.308) | (0.311) | (0.315) | (0.318) | (0.747) | (0.747) |
| $\mathbb{I}$(High trust) | -0.064 | -0.059 | 0.094 | 0.093 | 0.324 | 0.321 |
| | (0.059) | (0.059) | (0.217) | (0.219) | (0.522) | (0.522) |
| Political knowledge (0-5) | -0.052* | -0.054** | -0.048 | -0.050 | -0.127** | -0.134** |
| | (0.027) | (0.027) | (0.030) | (0.030) | (0.057) | (0.058) |
| Republican × Political knowledge | 0.053 | 0.053 | 0.034 | 0.034 | 0.098 | 0.099 |
| | (0.037) | (0.037) | (0.041) | (0.041) | (0.080) | (0.081) |
| Independent × Political knowledge | 0.081* | 0.082* | 0.096* | 0.097* | 0.265*** | 0.269*** |
| | (0.047) | (0.047) | (0.051) | (0.051) | (0.102) | (0.102) |
| Not sure party × Political knowledge | 0.199* | 0.198* | 0.198* | 0.197* | 0.567* | 0.566* |
| | (0.106) | (0.107) | (0.109) | (0.110) | (0.317) | (0.317) |
| Republican ×$\mathbb{I}$(High trust) | | | -0.541 | -0.529 | -1.529* | -1.509* |
| | | | (0.401) | (0.401) | (0.808) | (0.810) |
| Independent ×$\mathbb{I}$(High trust) | | | 0.546 | 0.558 | 1.732 | 1.777 |
| | | | (0.669) | (0.672) | (1.316) | (1.319) |
| Political knowledge ×$\mathbb{I}$(High trust) | | | -0.023 | -0.022 | -0.086 | -0.082 |
| | | | (0.050) | (0.050) | (0.127) | (0.128) |
| Republican × Knowledge Score ×$\mathbb{I}$(High trust) | | | 0.095 | 0.093 | 0.279 | 0.275 |
| | | | (0.092) | (0.093) | (0.232) | (0.232) |
| Independent × Knowledge Score ×$\mathbb{I}$(High trust) | | | -0.192 | -0.193 | -0.670* | -0.677* |
| | | | (0.148) | (0.148) | (0.384) | (0.386) |
| Constant | 0.757*** | 0.788*** | 0.740*** | 0.767*** | 0.694** | 0.775** |
| | (0.188) | (0.193) | (0.206) | (0.212) | (0.331) | (0.347) |
| N | 909 | 909 | 909 | 909 | 909 | 909 |
| R2 | 0.13 | 0.13 | 0.14 | 0.14 | | |
| R2 Adj. | 0.10 | 0.10 | 0.11 | 0.11 | | |
| Demographic and Economic controls | Yes | Yes | Yes | Yes | Yes | Yes |
| F | 4.27 | 4.11 | | | | |

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

Model estimates from linear probability model (cols 1-4) and probit (column 5-6). Dependent variable is whether respondent indicated that the Fed's policy of increasing interest rates was likely to raise inflation (versus keep it the same or lower it). Additional controls include: indicator variable for White respondent, indicator for male, Hispanic, categorical variables for educational attainment, age. categrorical variables for annual family income, indicators for having a child under 18, owning a home, and whether they can obtain money needed for a 400 dollar emergency expense.

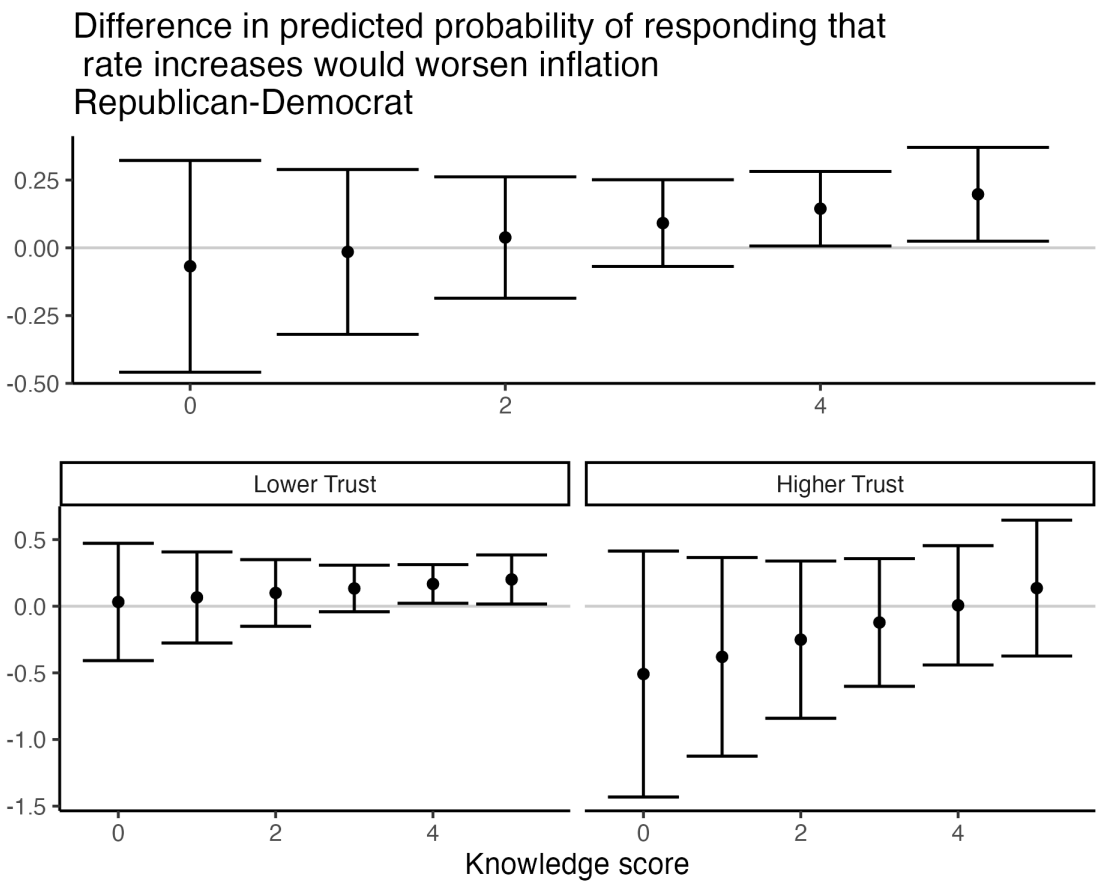


Figure 11: Differences (Republican-Democrat) in predicted probability of respondent saying that Federal Reserve interest rate increases would increase inflation. Top panel estimates predicted probability for a Republican minus an otherwise identical Democrat at different levels of political knowledge score, where predictions are generated using the model shown in column (2) of Table 14. Bottom panels show differences in predicted probability that interest rate increases would increase inflation for low-trust (left) and high-trust (right) respondents who are otherwise identical, using the model shown in column (3) of Table 14. 99% error bands calculated using the delta method.

# C A simple game-theoretic model of survey disagreement

This section contains a 2-player noncooperative game-theoretic model that rationalizes incorrect survey responses based on partisan identity. In particular, it is a 2-person version of the general static network model elucidated in section VI of Huo and Pedroni (2020) and the exposition and solution technique follow almost directly from their paper.

**Model setup** Suppose there are two agents, $R$ and $D$. Each has a common prior about an underlying state of the world, $\pi$. Agent $i$ takes an action $\pi_i, i \in \{R, D\}$. Their payoff for the action is related to both the quadratic distance of their action from the true state, and the distance of their action from the other player. Their ex-post loss function is (following Morris and Shin (2002)) are

$$U_R(\pi_R; \pi_D, \pi) = -(1-\alpha)(\pi_R - \pi)^2 - \alpha(\pi_R - \pi_D)^2 \tag{4}$$

Similarly:

$$U_D(\pi_R; \pi_D, \pi) = -(1-\beta)(\pi_D - \pi)^2 - \beta(\pi_D - \pi_R)^2 \tag{5}$$

These loss functions reflect their (possibly competing) motives. For concreteness, suppose the actions players take is answering a survey about their forecast for inflation. They want to give the "correct" answer, but also potentially want to give answers close to (or far from) the answers of the other agent.

We allow the two types to potentially place different weights on strategic motives – i.e., type $D$ players may care relatively more or less about accurately stating their beliefs than type $R$ players. We restrict $\alpha$ and $\beta$ to be smaller than 1 in absolute value.

We suppose that each agent observes a common (public) signal $\widetilde{\pi} = \pi + \varepsilon$ and an idiosyncratic (private) signal $p_i = \pi + \eta_i$. Each signal (and the fundamental) are zero mean and Gaussian. The fundamental has precision $\tau_\pi$, the noise on the public signal has precision

$\tau_\varepsilon$ and the private signal has precision $\gamma_i\tau_\eta$ (where signal precision potentially differs across agent types). Collect the random variables in a vector $\boldsymbol{\varepsilon_i}' = \begin{bmatrix} \pi & \varepsilon & \eta_i \end{bmatrix}$

The loss minimization problem associated with equations (4) and (5) yields best response functions

$$\pi_R = (1-\alpha)E_R(\pi) + \alpha E_R(\pi_D)$$

$$\pi_D = (1-\beta)E_D(\pi) + \beta E_D(\pi_R)$$

We collect these best response functions in the following matrix equation:

$$\begin{bmatrix} \pi_R \\ \pi_D \end{bmatrix} = \begin{bmatrix} 1-\alpha E_R(\pi) \\ 1-\beta E_D(\pi) \end{bmatrix} + \underbrace{\begin{bmatrix} 0 & \alpha \\ \beta & 0 \end{bmatrix}}_{\mathbf{W}} \begin{bmatrix} E_D\pi_R \\ E_R\pi_D \end{bmatrix} \tag{6}$$

where the conditional expectation based on the signals observed by R-type agents $E_R$ (analogous for $D$-type).

Agent $i$'s signals, in matrix form, are

$$\mathbf{x_i} = \boldsymbol{M_i\varepsilon_i} = \underbrace{\begin{bmatrix} 1 & 1 & 0 \\ 1 & 0 & 1 \end{bmatrix}}_{\mathbf{M}} \underbrace{\begin{bmatrix} \tau_\pi^{-1/2} & 0 & 0 \\ 0 & \tau_\varepsilon^{-1/2} & 0 \\ 0 & 0 & (\gamma_R\tau_\eta))^{-1/2} \end{bmatrix}}_{\boldsymbol{\Sigma_i}} \begin{bmatrix} \pi \\ \varepsilon \\ \eta_i \end{bmatrix}$$

Now, define

$$\phi_R' = \begin{bmatrix} 1-\alpha & 0 \end{bmatrix}$$

$$\phi_D' = \begin{bmatrix} 1-\beta & 0 \end{bmatrix}$$

We look for an equilibrium where actions are a linear combination of the agents' signals, as in Morris and Shin (2002). That is, we try to solve for the vectors $\mathbf{h_i}$ such that $\pi_i = \mathbf{h_i x_i} = \mathbf{h_i M}_i\boldsymbol{\varepsilon_i}$

Define the matrix

$$\mathbf{\Lambda} = \begin{bmatrix} I_2 \\ 0 \quad 0 \end{bmatrix}$$

which selects the elements of $\varepsilon_{\mathbf{i}}$ common to both agents.

By the projection theorem for conditional normal variables, $R$'s conditional expectation of $D$'s *fundamental* ($\beta\pi$) is

$$E_R(\beta\pi|\mathbf{x_R}) = \boldsymbol{\phi}_{\boldsymbol{D}}'\mathbf{\Lambda}'\boldsymbol{M}_{\boldsymbol{R}}'(\boldsymbol{M}_{\boldsymbol{R}}\boldsymbol{M}_{\boldsymbol{R}}')^{-1}\mathbf{x_R}$$

and her forecast of $D$'s *action* is (since she has no information about the private signal of $D$):

$$E_R(\pi_D|\mathbf{x_R}) = \boldsymbol{h}_{\boldsymbol{d}}'\boldsymbol{M}_{\boldsymbol{D}}\mathbf{\Lambda}\mathbf{\Lambda}'\boldsymbol{M}_{\boldsymbol{R}}'(\boldsymbol{M}_{\boldsymbol{R}}\boldsymbol{M}_{\boldsymbol{R}}')^{-1}\mathbf{x_R}$$

Analogous expressions for $D$'s belief about $R's$ fundamental and $R's$ action also hold. Substituting these expressions and the proposed solution into (6) yields

$$\begin{bmatrix} \mathbf{h_R'x_R} \\ \mathbf{h_D'x_D} \end{bmatrix} + \begin{bmatrix} \boldsymbol{\phi}_{\boldsymbol{R}}'\mathbf{\Lambda}'\boldsymbol{M}_{\boldsymbol{R}}'(\boldsymbol{M}_{\boldsymbol{R}}\boldsymbol{M}_{\boldsymbol{R}}')^{-1}\mathbf{x_R} \\ \boldsymbol{\phi}_{\boldsymbol{D}}'\mathbf{\Lambda}'\boldsymbol{M}_{\boldsymbol{D}}'(\boldsymbol{M}_{\boldsymbol{D}}\boldsymbol{M}_{\boldsymbol{D}}')^{-1}\mathbf{x_D} \end{bmatrix} + \begin{bmatrix} (1-\alpha)\boldsymbol{h}_{\boldsymbol{D}}'\boldsymbol{M}_{\boldsymbol{D}}\mathbf{\Lambda}\mathbf{\Lambda}'\boldsymbol{M}_{\boldsymbol{R}}'(\boldsymbol{M}_{\boldsymbol{R}}\boldsymbol{M}_{\boldsymbol{R}}')^{-1}\mathbf{x_R} \\ (1-\beta)\boldsymbol{h}_{\boldsymbol{R}}'\boldsymbol{M}_{\boldsymbol{R}}\mathbf{\Lambda}\mathbf{\Lambda}'\boldsymbol{M}_{\boldsymbol{D}}'(\boldsymbol{M}_{\boldsymbol{D}}\boldsymbol{M}_{\boldsymbol{D}}')^{-1}\mathbf{x_D} \end{bmatrix} \tag{7}$$

This must hold for any realization of $\mathbf{x_R}, \mathbf{x_D}$ so:

$$\begin{bmatrix} \mathbf{h_R'} \\ \mathbf{h_D'} \end{bmatrix} = \begin{bmatrix} \boldsymbol{\phi}_{\boldsymbol{R}}'\mathbf{\Lambda}'\boldsymbol{M}_{\boldsymbol{R}}'(\boldsymbol{M}_{\boldsymbol{R}}\boldsymbol{M}_{\boldsymbol{R}}')^{-1} \\ \boldsymbol{\phi}_{\boldsymbol{D}}'\mathbf{\Lambda}'\boldsymbol{M}_{\boldsymbol{D}}'(\boldsymbol{M}_{\boldsymbol{D}}\boldsymbol{M}_{\boldsymbol{D}}')^{-1} \end{bmatrix} + \begin{bmatrix} (1-\alpha)\boldsymbol{h}_{\boldsymbol{D}}'\boldsymbol{M}_{\boldsymbol{D}}\mathbf{\Lambda}\mathbf{\Lambda}'\boldsymbol{M}_{\boldsymbol{R}}'(\boldsymbol{M}_{\boldsymbol{R}}\boldsymbol{M}_{\boldsymbol{R}}')^{-1} \\ (1-\beta)\boldsymbol{h}_{\boldsymbol{R}}'\boldsymbol{M}_{\boldsymbol{R}}\mathbf{\Lambda}\mathbf{\Lambda}'\boldsymbol{M}_{\boldsymbol{D}}'(\boldsymbol{M}_{\boldsymbol{D}}\boldsymbol{M}_{\boldsymbol{D}}')^{-1} \end{bmatrix} \tag{8}$$

Right multiplying this expression by $\begin{bmatrix} \mathbf{M_R M_R'} & \mathbf{0} \\ \mathbf{0} & \mathbf{M_D M_D'} \end{bmatrix}$:

$$\begin{bmatrix} \mathbf{h_R'M_RM_R'} \\ \mathbf{h_D'M_DM_D'} \end{bmatrix} = \begin{bmatrix} \boldsymbol{\phi_R'\Lambda' M_R'} \\ \boldsymbol{\phi_D'\Lambda' M_D'} \end{bmatrix} + \begin{bmatrix} (1-\alpha)\boldsymbol{h_D' M_D \Lambda\Lambda' M_R'} \\ (1-\beta)\boldsymbol{h_R' M_R \Lambda\Lambda' M_D'} \end{bmatrix} \tag{9}$$

Then, transposing each row:

$$\begin{bmatrix} \mathbf{M_R M_R' h_R} \\ \mathbf{M_D M_D' h_D} \end{bmatrix} = \begin{bmatrix} \boldsymbol{M_R \Lambda \phi_R} \\ \boldsymbol{M_D \Lambda \phi_D} \end{bmatrix} + \begin{bmatrix} (1-\alpha)\boldsymbol{M_R \Lambda\Lambda' M_D' h_D} \\ (1-\beta)\boldsymbol{M_D \Lambda\Lambda' M_R' h_R} \end{bmatrix} \tag{10}$$

Define

$$S_R = \begin{bmatrix} 1 & 0 \\ 0 & 0 \end{bmatrix}$$

$$S_D = \begin{bmatrix} 0 & 0 \\ 0 & 1 \end{bmatrix}$$

$$\bar{\mathbf{M}} = S_R \otimes M_R + S_D \otimes M_D$$

$$\boldsymbol{\Sigma} = S_R \otimes \Sigma_R + S_D \otimes \Sigma_D$$

where $\otimes$ is the Kronecker product of the two matrices.

Then (10) can be written

$$\bar{\mathbf{M}}\bar{\mathbf{M}}'\mathbf{h} = \bar{\mathbf{M}}\left(\mathbf{I} \otimes \boldsymbol{\Lambda}\right)\boldsymbol{\phi} + \bar{\mathbf{M}}(\mathbf{W} \otimes (\boldsymbol{\Lambda\Lambda'})\bar{\mathbf{M}}'\mathbf{h}$$

where $\mathbf{h}$ is a column vector that stacks $\mathbf{h_i}$ and $\phi$ is a column vector that stacks the $\boldsymbol{\phi_i}$

We can directly solve for $\mathbf{h}$ as

$$\mathbf{h} = \left\{\bar{\mathbf{M}}\left(\mathbf{I} - \mathbf{W} \otimes \boldsymbol{\Lambda\Lambda'}\right)\bar{\mathbf{M}}'\right\}^{-1}\bar{\mathbf{M}}\left(\mathbf{I} \otimes \boldsymbol{\Lambda}\right)\boldsymbol{\phi}$$

The policy functions (which amount to weights on the private and public signals) will in general depend in a complicated way on the precision of agents' signals and the weights of

both agents on accuracy versus coordination (or substitution). This is because the optimal action of $R$ type agents depends on their beliefs about what $D$ type agents will do, which depends on higher-order beliefs – $R$'s belief about $D$'s belief about $R$'s belief, and so on. The Bayesian Nash Equilibrium policy functions reflect the impact of these higher-order beliefs because the weights on each signal depends on the parameters governing *both* agents' loss functions and the precision of public signals and the private signals of *both* agents.

Direct calculation yields

$$\begin{aligned}\mathbf{h}_{\mathbf{R}}'\mathbf{x}_{\mathbf{R}} =& \frac{\sqrt{\tau_\pi}\tau_\varepsilon\left(\tau_\pi+\tau_\varepsilon+\tau_\eta(\gamma_D+\alpha\gamma_R)\right)}{(1-\alpha\beta)(\gamma_R\gamma_D\tau_\eta^2)+(\tau_\pi+\tau_\varepsilon)^2+\tau_\eta(\gamma_R+\gamma_D)(\tau_\pi+\tau_\varepsilon)}(\pi+\varepsilon)\\ &+\frac{\gamma_R\tau_\eta\sqrt{\tau_\pi}\left((\tau_\pi+\tau_\varepsilon)(1-\alpha)+\gamma_D\tau_R(1-\alpha\beta)\right)}{(1-\alpha\beta)(\gamma_R\gamma_D\tau_\eta^2)+(\tau_\pi+\tau_\varepsilon)^2+\tau_\eta(\gamma_R+\gamma_D)(\tau_\pi+\tau_\varepsilon)}(\pi+\eta_R)\end{aligned} \tag{11}$$

By Theorem 2 in Huo and Pedroni (2020), the equilibrium of the game is unique.

**Comparative statics** To illustrate the interaction of signal precision and coordination/substitution motives, we use a simplified example. Suppose $\tau_\eta = \tau_\pi = \tau_\varepsilon = 1$ and $\gamma_D = 1$ so that only the parameter $\gamma_R$ governs the differences in (private) signal precision. In this case, the equilibrium best response function for $R-$type agents is

$$\begin{aligned}\mathbf{h}_{\mathbf{R}}'\mathbf{x}_{\mathbf{R}} =& \frac{3+\alpha\gamma_R}{6+3\gamma_R-\alpha\beta\gamma_R}(\pi+\varepsilon)\\ &+\frac{\gamma_R(3-2\alpha-\alpha\beta)}{6+3\gamma_R-\alpha\beta\gamma_R}(\pi+\eta_R)\end{aligned} \tag{12}$$

As inspection of the expression makes clear, the weight on the public signal (the first element) and the private signal (the second element) depend nonlinearly on the precision of $R$'s private signal and the weight both agents place on coordination.

**Remark** (Comparative statics of the simplified policy functions)**.** *When the only difference in information arises from the relative precision of $R-$type signals:*

1. *An increase in the value of coordination for $R$ type agents will always increase the weight on the public signal and decrease the value of the private signal:* $\frac{d\mathbf{h}_{\mathbf{R}}'(1)}{d\alpha} > 0$,

$\frac{d\mathbf{h}'_{\mathbf{R}}(2)}{d\alpha} < 0$ *regardless of the sign of* $\alpha$ *or* $\beta$*.*

2. *An increase in the precision of private information may increase or decrease the weight on the public signal. It will always decrease the weight on the public signal if* $\alpha \leq 0$*. It will increase the weight on the public signal if* $\alpha > 0$ *and if* $\gamma_R$ *is sufficiently precise.*

The first remark follows from the fact that as $\alpha$ increases, $R$ type agents either want to coordinate more with $D$ type agents (if $\alpha > 0$ ) or suffer less of a loss from that coordination. For a given signal precision, they put more weight on common information when the motive to coordinate more is greater.

An increase in the precision of private information leads to an ambiguous change in the weights on public information versus private information. This is because more precise private information help $R$-type agents more accurately forecast the fundamental, but they know that $D$-agents do not have that information. When $\alpha < 0$ these motives work in the same direction for the choice of action. But if signals are sufficiently precise *and* $R$ type agents want to coordinate with $D$ type, then an increase in information quality pushes them to pick an action closer to the public signal, knowing that $D$ type agents will place weight on it as well.